



CommerceNet Consortium

“Interoperability and eCommerce – Defining the Next Wave of the Internet Economy”

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A Summary of the testimony provided to the United States Senate
Subcommittee on Science, Technology, and Space – “The Role of Standards in
the Growth of Global Electronic Commerce”

October 28, 1999

CommerceNet: In Pursuit of a Free Market Architecture

The development of a unified, industry-endorsed framework for eCommerce promises to eliminate many of the current barriers to free Internet enterprise — providing the catalyst for an explosion of entrepreneurial activity

CommerceNet

I am here today representing CommerceNet, an organization that is in the center of emerging Internet business models and is the center of the flow of new ideas and concepts related to eBusiness. It is a non-profit member-driven organization, which focuses on creating business value through innovation in electronic commerce. We provide a variety of programs that support member research, invention, experimentation and collaboration. Our major area of focus is on interoperability and its impact on technology, applications, public policy and business models.

CommerceNet was launched in April 1994 in Silicon Valley. CommerceNet is a stellar example of the success of industry/government partnerships. Originally established under a Federal research grant, our membership has grown to more than 700 companies and organizations worldwide, including leading financial, technology, manufacturing, distribution, government and retail organizations. Additionally, CommerceNet has helped launch over a dozen successful Internet and eCommerce companies.

The Development of Interoperability and its Impact on eCommerce

Historically, interoperability meant the ability to link two or more software applications or services together in a consistent and predictable manner. That ability was revolutionary in itself. However, today we are moving that emphasis to a new level where we are concerned not just with interoperable software applications but with the ability of companies to interoperate with one another. We believe that this represents the next fundamental step in the evolution of the Internet and eCommerce and will dramatically change the way business is done around the world.

The result is that the focus shifts from company Web sites to Web-based relationships between multiple companies — using the power of the Internet to support dynamic business processes and negotiation in the space between organizations. This requires an approach that lets different eCommerce systems readily identify likely trading partners, exchange basic trading information, and negotiate transactions — at today's rapid pace of business. The idea is to make products and services instantly available to any potential trading partner anywhere in the world. By accomplishing this, rigid supply chains can be transformed into *supply webs* where both large and small companies are able to spontaneously structure deals that respond directly to emerging market opportunities.

With its universal connectivity, the Internet offered an obvious alternative to the use of proprietary networks. But, to date, standards ensuring consistent *interpretation* of business data exchanged by way of the Internet have been conspicuously absent. To fill the void, many companies looking to build on their existing trading relationships and a small but growing number of industry groups have set out to create their own *ad hoc* standards for information exchange. With the help of these, some companies have managed to better integrate with their supply-chain partners, but what these *ad hoc* standards clearly are incapable of providing is a way to quickly, easily integrate with an ever-expanding network of future trading partners regardless of industry or location.

The problem we face is that currently there are few broad standards that will enable this type of environment

to exist. Furthermore, the fundamental approaches to setting standards may be far from acceptable in a world of highly dynamic changing business relationships. Our challenge is to develop a new approach to enabling businesses to find one another and quickly establish a business relationship.

The Next Steps

We believe the right model is to establish a broadly supported industry framework that enables interoperability between companies of all types based more on negotiation than on set standards. The ability to negotiate new arrangements and quickly adapt as requirements change demands that all companies share a common semantic framework for cross-industry, business-to-business information exchange — that is, a standard nomenclature for use in referencing key pieces of business information and a set of standard conventions defining how to interpret and handle that information. To date, nothing of the sort has been adopted. Were such a framework already widely supported, a company looking to expand its offerings would not be faced with the dreary prospect of negotiating data exchange conventions with each and every new trading partner it hopes to add to its existing integrated value chain. With a framework that rationalizes Web content in the same way the universally accepted Hypertext Markup Language (HTML) has already managed to rationalize Web formats, the exchange of critical business information could be made every bit as uncomplicated as the exchange of Web pages.

This will require a collaborative effort across industries — including key standards bodies, government and industry organizations — that encourages and supports the development of:

- New technologies and business models
- Consistent business languages and semantics based on XML
- New intermediaries to manage spaces between the companies in these new trading communities
- New approaches to conflict resolution
- Conformance testing and services for certification of interoperability
- Legal and regulatory frameworks that support new levels of cooperation between independent commercial enterprises

Government's Role

- Allow industry to lead in the continued evolution of interoperable eCommerce and be ready and able to step in in the event of a clear and sustained market failure. The marketplace is moving and evolving too quickly to make hasty judgements about the need to regulate.
- Be a “first mover” in the use and implementation of interoperable eCommerce. This allows the government to more strongly and effectively influence the direction and adoption of interoperable eCommerce.
- Participate in and support research and development efforts through National Institute of Standards and Technology and the Department of Commerce that encourages continued innovation in technologies, applications and business models. It was largely due to the support of NIST and the DOC that many of the current concepts of XML and eCommerce interoperability were commercialized so quickly.
- Interject interoperability in all government eCommerce regulatory programs and activities. Clearly interoperability will impact every facet of the legal and regulatory framework changing many of the fundamental concepts and ideas that underlay the legal requirements and needs. From international trade issues to competitiveness to privacy, concepts of interoperability will change what needs to be regulated and how.
- Interoperability could have the largest potential benefit for small and medium-sized businesses. Government can proactively take actions to encourage increased small business usage of

eCommerce as a foundation to form cooperatives that will enhance the success competitiveness of small business. Over regulation of cooperative use of the Internet may have the greatest detrimental impact on small and medium-sized businesses

- Continue to support new technologies such as the Next Generation Internet. The NGI is critical to interoperability. When wide spread interoperability becomes commonplace, eCommerce applications will place greater demands on the Internet in terms of bandwidth as well as quality of service and the ability for large numbers of independent applications to be synchronized and interact with one another.
- Modify patent law processes to take into account the large degree of innovation that is occurring in the market. Many new concepts of interoperability could potentially be patented by companies without sufficient cause due to the complexity of the technologies. Interoperability is fundamentally based on the concepts of openness and fair interaction and could be severely impaired if a patent were granted that allowed the patent holder to levy transaction fees or royalties anytime two or more businesses collaborate.
- Support the development of industry-led organizations that work to provide management of common areas between the organizations in new trading communities and online markets. Both industry and the government have a responsibility to see the consistent application of rules and mediation in these new online environments.

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