

## ECo SYSTEM – COMMERCE.NET'S ARCHITECTURAL FRAMEWORK FOR INTERNET COMMERCE

BY JAY TENENBAUM, COMMERCE.NET, USA\*

committee and have themselves committed to support the development of EMB related projects in the coming years.

- ◆ The EMB project serves as a reference project in the involved countries as well as on a European level.
- ◆ EMB is involved in the G7-project "A Global Marketplace for SME".

Although there is right now no detailed statistical evidence of the benefits of the EMB project, there are some indications that show the positive effects and stimulation on businesses, citizens, governments and the region as a whole.

### CONCLUSION

Even if the EMB is still in its infancy the project can be assessed as a success until now. Some of the identified success factors are as follows:

- ◆ The regional focus creates an identity and a point of reference for the people of the region and gathered a critical mass of participants within a short time.
- ◆ The open basic philosophy and the concept as a neutral, across the border platform.
- ◆ The broad base of support by companies, universities, and public authorities.
- ◆ The ease of access and use.
- ◆ The mix of commercial and non-commercial applications.

The main obstacles for a faster development of the EMB and especially the Electronic Commerce applications are the missing market services for integrated business transactions like contracting-, payment-, logistic- or trust-services.

### PROJECT OVERVIEW

The eCo System project addresses the interoperability of eCommerce applications, services, and platforms – arguably the most important and vexing issue in realizing the vision of a global Internet marketplace. The good news is that these are proliferating at an astounding rate from vendors all over the world. The bad news is that nothing talks to each other,

CommerceNet is responding by leading a broad industry initiative to develop and deploy eCo System (as in eCommerce), an object-oriented architectural framework for Internet commerce. The framework acts as middleware, insulating application and platform developers so that digital markets can function and utilize each others services. The framework also enables applications to be rapidly assembled from

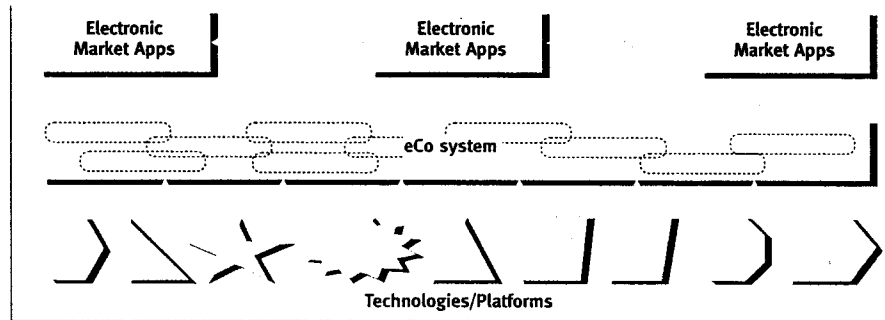


Figure 1:  
What is needed for a working eCommerce System

\* Jay Tenenbaum  
(jmt@commerce.net) is chairman of the CommerceNet project and was its founder, conceiving the idea of the consortium in early 1993.

or builds on each other. For example, we have about 20 members who have developed proprietary payment solutions, and another dozen with incompatible security solutions. What consumers want, by contrast, is a universal wallet that can hold any payment instrument, as well as a digital identity card or two that they can use to obtain many additional credentials, such as credit cards, licences and membership cards. Similar interoperability issues exist at every level – directories, catalogs, collaboration tools, EDI protocols, shopping agents, shipping services, markets, etc. We are well down the path toward digital anarchy.

reusable building blocks and shared network services. The project is challenging from a technical perspective because things are moving so fast that there's seldom time even for de facto standards to emerge. Instead, we must often deal with de facto interoperation – getting incompatible products that are already in the marketplace to somehow communicate. This may be accomplished through negotiation protocols ("I don't care what standard you use, just tell me what it is and I'll speak it"), bridging gateways, and mediators (smart gateways).

The project is equally challenging from a business perspective – getting the market leaders in each area to the table and getting them to agree on how best to approach interoperability. The eCo System project is thus more than just an architectural framework. It's an ongoing process for achieving broad industry consensus on interoperability and reuse issues critical to open digital markets.