Business to Business Electronic Commerce at Works!

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The internet brings many changes to our business relationships but the current euphoria about e-commerce and virtual enterprises has a tendency to bury the long experience we actually have in these areas under a lot of hype.

Business to business relationships on an electronic basis have a long and successful history if we include intra-company and fax-based business activities. Similarly mail-order houses for years have worked with fax and data-network based transactions in business to consumer relationships. Amazon.com in this respect is just a late-comer and a non-profitable one in addition.

With the coming of the internet and the WWW an explosion in public awareness and as a consequence in business to consumer relationships is taking place. The much more important field of business to business relationships (sometimes hyped as virtual enterprises) has seen a much slower development, especially if we include small and medium sized companies. The vast majority of those is very hesitant to move essential parts of their business processes to the internet.

The panel will analyze and discuss some of the reasons for this behavior. Actually these reasons could be seen to fall into three categories

- Technological: Incompatibility of platforms, low support for business processes, high costs of adjusting business processes to application domains and company culture, incompatibility and missing interoperability of software, low support for cooperative work and decision making, unclear and incomplete handling of security and reliability issues, missing support for novel approaches in business to business dealings

- Economic: Difficulty to build trust between "electronic"-only partners, vastness of available worldwide choices, difficulty and need to build and maintain long lasting partnerships, unclear economic gain, missing business models

- Legal and Regulatory: Security and privacy of data and actions, legality and enforceability of contracts, liability in dynamic partnerships, incompatibility of multinational laws and regulations nation oriented behavioral culture

In some of these areas solutions may already exist but are not widely known or used sufficiently. In others major research and development tasks are still in front of us. The panel will analyze the current situation, propose remedies and try to predict future developments.

The panel will consist of the chairman and four panel members:

Chairman: Dr. Erich J. Neuhold, Director GMD-IPSI and Professor TU Darmstadt

Panelist 1: Dr. David Lomet, Senior Researcher, Manager of the Database Research Group, Microsoft (WEB technology, openness, reliability, interoperation)

Panelist 2: Dr. Andreas Reuter, Dean International University and Director European MediaLab (technology models, economic impact, teaching and training needs)

Panelist 3: Dr. Joachim Schaper, Head CEC’s Karlsruhe, SAP (technology, business, models and processes)

Panelist 4: Dipl.-Ing Klaus-Dieter Wolfenstetter, German Telecom (legal & regulatory issues, security, liability)

Position Statement

Dr. Andreas Reuter, Dean International University and Director European MediaLab (technology models, economic impact, teaching and training needs)

In the business-to-business environment information systems and electronic transaction date back quite some time - much longer at least than the term E-Commerce has been around. Banks have been doing electronic fund transfer for more than 20 years, suppliers in industries such as car manufacturing etc. routinely doing electronic order processing with their customers, in some cases the supplier even manages the customer's inventory. More examples could be listed, but it suffices to say that aspects of E-Commerce originated in the business-to-business
world long before he were discussed in the business-to-
customer environment.

The level of integration required to do that gave rise to various standardization efforts in order to link the heterogeneous IT worlds of the companies that wanted to cooperate. In some cases agreements about how to generate identifiers for certain objects were made, protocols such as EDI, Z9350 and others were defined, etc. This already was a clear indication of what would be needed in order to let businesses cooperate electronically: One needs means to translate the "world view" of one participant into those of the others. Traditionally, the things that needed to be translated were well-defined and static, so a number of standards was sufficient. The recent development of E-Commerce has made it very clear, though, that we also have to be able to exchange (and consistently interpret) unstructured information. This explains the global excitement about XML. But even XML is able to cope with static structures only. For businesses to fully exploit the potential of E-Commerce, they have to be able to map their internal processes onto corresponding units of execution of their partners. In other words, we need to map workflows of different types, represented in different systems, onto each other in a very flexible way. This is one of the major challenges I see developing systems for business-to-business E-Commerce.

Supporting next Wave in E-Commerce

Author: Dr. Joachim Schaper, SAP AG, CEC Karlsruhe

Background

SAP is a major supplier for Enterprise Technology supporting in-house business processes and also business-to-business activities. The advent of Internet Technology as a major inter-company mechanism provides the technical means for larger business integration supporting the inter-company business processes. How ever today a lot of potential E-Commerce customers are not prepared to jump on the technology wave, because very often if they would fail doing so, they risk their core business.

In order to pilot some of these risks and to develop appropriate business scenarios and business models, SAP's applied research group, CEC Karlsruhe, started about 3 years ago a joint European project to bring together infrastructure providers, public sector and commercial companies to form a regional tele-market which is established in 4 regions in Europe (Technologie-Region Karlsruhe (DE), Oulu (FI), Nottingham (UK) and Athens (GR). Some of the following thesis are derived from that background and try to analyze some reasons why electronic business is difficult.

Thesis 1

Technology is not the problem - Adequate Service Infrastructure is critical

Today's technology is developing so fast, that most of the basic problem sets such as very large databases, high bandwidth networks, distributed systems, encryption, which are covered in principal or are available as commercial products, that they do not limit the overall development of E-Commerce. What make is it difficult for end-user scenarios, is the fact, that a lot of the basic technology needs to be integrated into a service platform, that can serve as a generic backbone for commercial services. This integration effort is what we observed in MERCADO is one of the limiting factor of getting E-Business in regional Tele-markets up and running. The complex relationship between Telco's, ISPs, Value Added Service providers (Companies who act as commercial services hosts), Public Authorities and Banks is very difficult to establish, because of different core business areas, investment strategies and "languages". This will take a decade before we will face a general availability like we have other services (Power, water, Tele-phone, TV) available today.

Thesis 2

Innovative and attractive services are critical success factor

Creating new services, that are in contrast to established ones and who make use of the new technologies and infrastructure are key to attract consumers. In MERCADO we created a new Service called "Personal Audio CD", where a music label generated interest via the capability to combine various music artists (such as e.g. Jazz and Pop-Music) onto one individual item. The consumer is able to select via the Internet from a large set of samples his favorite ones, listen to the samples, combine them into a single CD, pay the product at a Point-Of-Sales Terminal immediately, so the label is able to produce the CD and deliver it via ordinary mail. This service made the overall set of services in the Tele-Market we tried out attractive.
and support the "Getting started phase" for the individual consumer.

Thesis 3

Integration of Public Sector is a major challenge

In general due to the difficulties in investing significantly in public infrastructure, the public sector folks have two problems, one is they need to improve the services for the citizens by supporting a public sector services on electronic platforms. Risk and Investment taking is typically very difficult and so the effectiveness to reach out to the citizen is generally low. The local authorities have to rethink their strategies, to develop regions supporting service infrastructure, as they plan and realize other infrastructure as well (streets, buildings, schools...). otherwise we will face a major cut off of people who have access to E-Commerce Services (at a private level) and those who are excluded.

Thesis 4

Creation of a trusted party is critical for B2B E-Commerce

Being in various customer project in the E-Commerce space at SAP one of the critical success factors of B2B is trust. Even in an established business relationship, folks tend to be very curious, to open up business information and to exchange value other than the established ways. A "Trust Center" both in technical and business sense is needed, that can act as a "clearing house" for E-Commerce, so that the established business relation ships (e.g. buyer-seller) scenarios are able to move to new electronic infrastructures, making benefits of real-time operations reducing overhead costs.

Position Statement

Klaus-Dieter Wolfenstetter, Dipl.-Ing Klaus-Dieter Wolfenstetter, German Telecom (legal & regulatory issues, security, liability)

The community of users of information and communication systems keeps growing not only in the private area but also in the commercial field. We observe that more and more business processes known from conventional stationary business are mapped to a "virtual" TCP/IP structure. Due to this virtualization and decentralization each electronic business process has to be secured by means of security functions: Authentication, digital signature and encryption are the most important here. On the other hand electronic commerce applications, and thus security functions, do not finish on national borders. The transborder use of security becomes a transnational matter!

Unfortunately for a long time legal and regulatory rules have been missing until the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies. This Arrangement views encryption technology as a dual-use item, i.e. one that has potential military as well as civil uses, and as such one which should be subject to export controls. 33 countries have signed this Arrangement, including all 15 European countries. In the light of this new situation we had set up several standardization projects which are researching the issues surrounding the provision of trusted services on a global basis.