Silicon Valley
WORLD INTERNET CENTER

The Future of Collaborative eBusiness:

Building a Blueprint for eCollaborative Opportunities

February 15, 2001

Proceedings

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Executive Summary

On February 15, 2001, the Silicon Valley World Internet Center produced an invitation-only Think Tank Session which brought together 25 key thought leaders to brainstorm and discuss future 12-to-18-month market opportunities for collaborative eBusiness. For the purposes of this program, collaborative eBusiness was defined as: business processes that transcend company borders, involve multiple parties with defined roles and activities, use Internet technologies and services, and span multiple IT environments and systems.

During the Think Tank Session, current and upcoming market opportunities for collaborative eBusiness were explored in the following areas: Supply Chain Management (SCM), Customer Relationship Management (CRM) and eMarketplaces.

It was established that defining collaboration is the key to successful eBusiness collaboration efforts, followed by an agreement to collaborate, and clearly articulated win-win outcomes.

The group identified that collaborative eBusiness challenges range from the need to reduce complexity to that to increase integration. Opportunities for solution providers are centered on feature-rich integrated solutions that provide high levels of privacy and security. But overall, the focus must be on the customers and the people using the systems.

Opportunities for growth within the SCM industry are in the medium and small business segments. This is a result of lower barriers of entry along with easier-to-use solutions. Taking advantage of current or emerging standards is a must for any solution along with collaboration with carrier firms. Another opportunity in the SCM arena is to provide time-to-value solutions, which cover much more than the traditional reduced-product-cost approach. A final, but important trend is the outsourcing and management of SCM services. The winners in the SCM space will be the enablers of interoperability along with aggregation-point providers. In addition, the big five consulting firms and contract manufacturers should continue to see significant windfall.

A key opportunity in CRM is to develop customizable, scalable collaboration packages centered on customer needs. Couple this with outsourcing for the same reasons one would outsource SCM: cost and complexity. The winners in the CRM space will be the full-service, end-to-end providers, along with the big five consulting firms.

For eMarketplaces, security is and will remain a key issue. Another is the lack of integration of tool suites. The limited ability to provide exchange-to-exchange solutions (X2X) is another impediment for adoption. As eMarketplaces mature, they are becoming new sources of information. The activities within an exchange, along with the actual information placed there, raise the question of information ownership. Knowledge management will become an opportunity as users look for tools to take advantage of information generated and stored within eMarketplaces. Customers will look for standards and protocols to simplify their engagements for eMarketplaces. They will also seek "moderate moderation" to ensure associated processes are implemented and carried out as agreed upon.

The Internet has evolved from publishing, interactivity and transactions, and is now entering the collaboration phase. A company planning to participate in collaborative eBusiness should start the journey with people in mind. The challenges are more related to how business is conducted and less with technologies. A concept can be placed into a C-Business Map, but should next be piloted to ensure win-win outcomes for all participants. The very nature of Internet collaboration allows for exploration leading to continuous improvement, resulting in growing and successful businesses.

Introduction

By Stefan Hack
Vice President, Accelerated SAP, SAP AG

The Internet is in the process of redesigning traditional business processes at a fast pace. Enterprises see both risks and opportunities in these changes. Standards such as HTTP, HTML, and XML format permit business partners to exchange information, collaborate and carry out business transactions in an electronic marketplace. The Internet is also used as a personalized sales medium for directly communicating with defined customer segments using a specific range of products and services. At the same time, however, pressure from the competition is increasing, the barriers for new competitors are lower than ever before, and the location of the enterprise is of secondary importance. The competitor is only a "mouse click" away.

"The new value equation of collaborative business allows others to build their success around your success."
Stefan Hack, SAP

Customer loyalty can only be achieved by identification wit an attractive brand name and sufficient spending on advertising. Success, however, will only be long-lasting if the customer finds the range of products and services convincing, and if suitable business partners are on the spot. In the long run, product quality and market leadership will only be feasible if the partners (suppliers, distributors and other partner enterprises) are able to cooperate. To remain competitive, enterprises, therefore, have to mesh their business processes with those of their customers, suppliers and business partners. Instead of integrations within an enterprise, integration across company borders is now needed.

Increasing globalization in connection with international division of labor and specialization is causing increasing integration and meshing of business relationships. This is true both for the organization within a global multi-national enterprise, as well as for its relationships to and business processes with its business partners. Enterprises also want to participate in the newly created electronic marketplaces as buyers or sellers to take advantage of the new opportunities provided, for example, in sales. The mySAP.com Marketplace for the chemical and pharmaceutical industry (http://chempharm.mysap.com) is a prime example, enabling the participants to trade non-production goods and services (MRO Procurement).

The landscape of the economy in the 21st Century consists of a network of communities; i.e., virtual groups that share a common goal defined by electronic cooperation based on Internet technology. Communities are typically inter-enterprise networks that developed in a certain industry. One example is the high-tech industry with its tight network of component suppliers, hardware manufacturers, distributors and service companies. The aviation industry has also developed communities of strategic alliances, such as the Star Alliance (http://www.star-alliance.com), boasting 15 airlines worldwide. These examples show that communities also include competing enterprises.

Collaborative eBusiness

On February 15, 2001, the Silicon Valley World Internet Center produced an invitation-only Think Tank Session which brought together 20-25 key leaders to brainstorm and discuss future 12-to-18-month market opportunities for collaborative eBusiness. For the purposes of this program, collaborative eBusiness was defined as: business processes that transcend company borders, involve multiple parties with defined roles and activities, use Internet technologies and services, and span multiple IT environments and systems.

During the Think Tank Session, current and upcoming

market developments for collaborative eBusiness were explored in the following areas: Supply Chain Management (SCM), Customer Relationship Management (CRM) and eMarketplaces.

Presentations were delivered by Mr. Jeff Enyart, Director, Electronic Commerce, United Parcel Service (UPS); Mr. Stefan Hack, Vice President, Accelerated SAP, SAP AG; Mr. Rajiv Gupta, General Manager, E-speak Operations, Hewlett-Packard Company; Dr. Eilif Trondsend, Director, Learning on Demand Program & Co-Founder, eLearningForum, SRI Consulting Business Intelligence; and Dr. Hal S. Richman, Co-Founder, Knowledge Navigators International Inc.

Value Creation In The New Economy

SAP – Stefan Hack

The industry is moving to collaborative business focusing on optimizing integration of business processes across organizational boundaries. The new value equation of collaborative business and a networked economy allows others to build their success around your success. Collaborative Business Maps are used to describe business scenarios and blueprints for e-Collaboration. Collaborative Business Maps ensure alignment of business strategy with IT systems by tracking the scenarios at the Business, Interaction and Component levels. As such, the maps are used to identify and implement collaborative eBusiness strategies.

The key focus of collaborative business is integration of processes across business borders. SAP's Collaborative Business Maps (C-Business Maps) are visual tools that support the definition and implementation of complex and interdependent business processes. Collaborative business over the Internet is new. Few case studies, tools and methodologies are available to ensure successful implementations of relationship and business practices via the Internet. In essence, C-Business Maps become the blueprint for collaboration over the Internet. They allow participants to quantify value generation, and they serve as a platform for innovation.

In some cases up to 80 percent of potential value is only realized through a complete view of the value chain. As a result, a C-Business Map is useful for creating corporate strategies, which lead to design and implementation of business collaboration over the Internet.

C-Business Maps are not static views of the world. They allow companies to define their business practices. After initial implementation of Internet collaboration solutions, companies often find new and better ways of creating value for their customers. Innovation through collaboration allows and demands further innovation for a company wanting to stay ahead of competition. C-Business Maps are tools for continuous improvements.

Everybody wants a custom solution. A solution that "keeps them involved."

When optimizing a value chain, do we create value and reduce costs or just shift the costs to other parts of the chain? Traditional value chain optimizations have been focused on cost reduction. This is no longer a recipe for success, because if one passes the cost to the vendor, the value is lost for that partner. True value for the whole supply chain comes when innovation, product quality and time to market are optimized. Successful collaboration is, from the start, focused on win-win outcomes far beyond shifting costs. A sustained value chain is built around customer needs. Unfortunately, as we have seen in the past, customer needs are easily forgotten in the quest for implementing Internet solutions.

Putting in place a business collaboration solution is complex. Aside from technology challenges, the primary obstacle is to create win-win scenarios for all involved parties. The long-term benefits of the collaboration must

significantly outweigh any required investment.

It is generally agreed that collaboration over the Internet is in its infancy. Industry-accepted definitions, rules and solutions are vague. There are few available, convincing and applicable case studies on Internet business collaboration. Perhaps it is the uncertainty around benefits that has placed a damper on the public exchanges. Instead, there is a big push for private exchanges where the owner controls the rules, content and long-term direction of the exchange.

Tracking the Benefits of eCollaboration

A collaboration scorecard predicts and tracks benefits of participating in collaborations over the Internet. The scorecard must consider the large number of private and public exchanges. Although a company may be invited to participate in a number of collaboration efforts, it will be a challenge to focus and achieve success if too many initiatives are started at the same time. Also, the requirements of such multiple efforts may exceed the capabilities of a company's IT department. There is no simple solution addressing the wide range of Internet business collaborations. One can only realize that collaboration is the dominant trend within Internet business.

Privacy and Security

Well-defined privacy and security features are important to successful collaboration. It must be clear to all parties what information is shared and what is not. While most businesses today easily agree to participate in the buying and selling of commodities, sharing data regarding innovation around the company's crown jewels is quite another issue. A company is not going to place their core business expertise into an Internet collaboration effort without significant assurances. For example, including service level agreements (SLA) as part of a collaboration effort could take some of the sting away from sharing data with suppliers.

A solution must also be tailored to allow a firm to operate its core business with minimal interruption – a high level of collaboration transparency is needed to ensure adoption.

Defining collaboration is the underpinning of successful business collaboration efforts. Next is the need for a common and accepted agreement, along with a clearly articulated win-win outcome. To better understand opportunities in collaboration, this Think Tank Session explored Supply Chain Management, Customer Relationship Management and eMarketplaces.

"I believe that most exchanges today that are based upon liquidity are barking up the wrong tree." – Rajiv Gupta Hewlett-Packard

Supply Chain Management

Issues, Needs and Challenges

UPS – Jeff Enyart

Supply chains are being transformed. Integrated supply chain and fulfillment models will require converging flow of goods, funds and information. Thus, forcing a focus on velocity, seamless integration, branding and long-term vision.

Supply chains are considered channel-driven as one company works with others to streamline their one supply chain around the flow of information, goods and funds. The management of these flows is changing. The traditional product-cost-reduction goals are taking the back seat to the quest for innovation. The theory is that if a company can improve how they do business over the Internet, they can then run their processes faster, better and with less cost, resulting in improved product quality and reduced product costs. An alternative solution to

building your own supply chain is to use solutions such as e-Speak from HP, which allows companies to connect via a ready-made and customizable collaboration solution.

Hewlett-Packard – Rajiv Gupta

E-Speak is HP's open software platform for the creation of dynamic, intelligent e-services. E-Speak solves a comprehensive set of problems including discovery, negotiation, and mediation of e-services. "There are three components in the e-Speak platform, the Service Framework Specification (SFS), the e-Speak Service Engine (SE) which is a high performance software implementation of the SFS, and the e-services Village (ESV) which is a secure registry and channel for e-service registration, discovery, and interaction." The benefits of e-Speak are: faster time-to-market, intelligent interactions, interoperability and scalability. E-Speak provides ready-made e-services functionality and helps to facilitate the connection between fragmented buyers and sellers online.

E-Speak's open platform allows companies to quickly engage in Internet business processes, as they can take advantage of e-Speak's ready-made solutions.

The status quo of SCM is hindered by adversarial relationships and ineffective processes. A company wanting to move forward is faced with a number of standards and integration points. Consequently, SCM challenges range from building trust and long-term relationships, to overcoming definition and implementation of integrated systems. An Internet collaboration effort should ensure their needs are met as the final product is delivered.

Opportunities in Supply Chain Management

Where will SCM be in 12 to 18 months? Gaining customer trust will remain important. Flexible, easy-to-use customer-driven solutions with low barriers of entry will be another item high on the wish list for most. An SCM solution must be built upon a platform enabling dynamic collaboration while incorporating multiple standards, thus, making it possible to manage complex relationships. The desired result is knowledge-sharing across the entire design-to-operations chain.

Opportunities for growth within the SCM industry are in the medium and small business segments. This is a result of lower a barrier of entry along with easier-to-use solutions. Taking advantage of current or emerging standards is a must for any solution along with collaboration with carrier firms. Another opportunity is to provide time-to-value solutions, which cover much more than the traditional reduced-product-cost approach. A final, but important trend is the outsourcing and management of SCM services. Many companies are realizing they cannot afford to become SCM experts, as SCM will remain complex and challenging, independent of technology solutions.

The winners in the SCM space will be the enablers of interoperability along with aggregation-point providers. In addition, the big five consulting firms and contract manufacturers should continue to see significant windfall.

Customer Relationship Management

Issues, Needs and Challenges

KickFire – John Maler

CRM is focusing on understanding your customer better to serve them better. The underlying premise is C-CAM: Customer Capital Asset Management, the lifetime customer revenue. Basic CRM components are Campaign Management, Sales Automation, Customer Service and Web Tools. Worldwide CRM software revenue is experiencing an explosive growth, predicting $12 Billion in sales by 2004. The critical success factor is the ability to focus on the customer. Current trends are industry consolidation, a focus on mid-size businesses, selecting the right customer, message and channel, data convergence, and building customer loyalty. A new relationship business is emerging: PRM – Partner Relationship Management.

CRM is not about technology. It is about people, about giving them tools to do their jobs. The definition of CRM is unclear, leading to fuzzy discussions about how to define and implement solutions. One of today's many challenges is the inability to build long-term trust among businesses and customers. Some say that there is no trust or loyalty for commodity-product providers. Building complex products, which require a higher level of customer involvement, makes it easier to create loyalty and trust. On the other hand, many companies are dedicated to building trust independent of their products and services. The fact that you know more about your customer than the competition (as a result of well executed CRM) will place you in a position to gain trust through personal service. Nonetheless, maximizing the value of a relationship is still more of an art than a science. And it may remain this way until it is possible to implement total solutions incorporating current knowledge of the customer base in a secure manner while honoring customer privacy.

In the near future, the ability to make tradeoffs (investment vs. returns) will remain a key need. CRM will require expansion into new areas managing customer-like relationships such as Partner-to-Partner. Customer segmentation will grow, demanding even more complex and feature-rich solutions. CRM will also be adopted by an increasing number of small and medium-sized businesses, as they realize the need to invest in managing their customers and partners. As CRM becomes more commonplace, a higher burden will be placed on the solution infrastructure: always on - always there.

Opportunities in Customer Relationship Management

In the next 12 to 18 months, a key opportunity in CRM is to develop customizable, scalable collaboration packages centered on customer needs. Couple this with outsourcing for the same reasons one would outsource SCM: cost and complexity. With new customer-focused solutions, it is possible for a company to redefine their core business, allowing them to find new opportunities as a result of learning more about the marketplace.

Wireless CRM solutions are considered to be critical to be able to reach out and touch customer interaction points. Immediate and pervasive information exchange will dramatically increase service levels and customer knowledge, while reducing cost through resource optimization.

The winners in the CRM space will be the full-service, end-to-end providers, along with the big five consulting firms.

eMarketplaces: Value Creation In The New Economy

Knowledge Navigators -- Hal S. Richman / SRI -- Eilif Trondsend

Many business activities that support online transactions, such as creating business strategies, structuring deals, purchasing non-standard products, and delivering professional services, depend on developing shared context and information.

The functionality needed to support collaboration among people and groups goes far beyond the simple discussion groups and document libraries found on many eBusiness portals and marketplaces.

Luckily, more tools are now starting to appear on the scene that are designed to support collaboration among people and groups where:

• The work involves complex interactions between people beyond the scope of structured processes and workflow.

• The work is high value (either in terms of dollars exchanged or in the value of the end products to the players).

• The solutions and services are by nature creative and require flexibility in how one works (e.g. ad hoc work), so one can organize his or her work and business relationships as desired.

• Relationship management is a key component of doing the work.

• Creating and sharing information within a group is critical to how the work gets done.

Public exchanges are falling out of favor due to limited value-added to a company's bottom line. Consequently, more firms are building their own private exchanges.

eMarketplaces are mostly engaged in non-mission critical processes. Companies place higher emphasis on innovation through collaboration. Firms may utilize public exchanges for part of their solution, but fully expect to also build their own collaboration solution. To overcome this trend, the public marketplaces must offer a wider range of customizable services.

The lure of reduced costs may not be sufficient to attract new users as eMarketplaces struggle to maintain their brand. Their survival depends upon a clearly defined path to profitability as available funding declines.

There are many challenges for eMarketplaces. Security is and will remain a key issue. Another is the lack of integration of tool suites. The limited ability to provide exchange-to-exchange solutions (X2X) is another impediment for adoption. As eMarketplaces mature, they become new sources of information. The activities within an exchange, along with the actual information placed there, raise the question of information ownership. Is the exchange the owner or does the information belong to the participants?

Opportunities in eMarketplaces

Where will eMarketplaces be in 12-18 months? Customers will look for standards and protocols to simplify their engagements. They will also seek "moderate moderation" to ensure associated processes are implemented and carried out as agreed upon. Knowledge management will become an issue and users will look for tools to take advantage of information generated and stored within eMarketplaces.

The opportunities in this space will be to make use of information value - to create a knowledge pool and turn this information into new business models. A solution must take care to provide the desired level of privacy to all participants. Users will have to be assured and feel comfortable that their participation is protected. Anything less will just turn them away.

The winners will be the consolidated marketplaces and

infrastructure providers. There will also be opportunities for Telcos to provide infrastructure and access, and for new functionality providers to create specific features to plug into the overall solution. eMarketplaces will need new features related to knowledge management and privacy.

Concluding Observations

Pitfalls to Avoid

Having pondered the future of collaborative business through SCM, CRM and eMarketplaces, what are the pitfalls to avoid? What should a company consider before defining and implementing its C-Business Maps? The participants in the Think Tank Session generated this short list of items to avoid:

- Continuing the status quo
- Current business structure
- Long path to profitability
- Not having the customer in mind
- Trying to do it all and do it alone
- Insular / non-integrateable solutions
- Complexity which creates reluctance to participate and collaborate
- Automating inefficiencies
- Using CRM as loyalty-enhancing tool
- Lack of economically successful case studies in collaboration
- Lack of privacy and sufficient security

Success Factors

The following are success-factors the group identified for building collaborative eBusiness opportunities.

- Value creation for all business partners in collaboration
- A solution that "keeps all parties involved"
- Open-standard-based infrastructure
- Anything that facilitates integration and standardization
- Fast and flexible system integration done by knowledgeable systems integrators
- A back end that can be bought or accessed via Application Service Provides (ASP)
- An interoperable and secure platform for eBusiness and eMarketplaces
- Collecting and leveraging knowledge
- Functionality and processes that integrate with the transaction and management services to support finding experts pertinent to the given transaction and communicating/collaborating with these experts
- Partnering with the competition - "coopetition"

The Internet is entering the collaboration phase. A company planning to participate in collaborative ebusiness should start the journey with people in mind. The challenging problems are mostly related to how we conduct business and less with technologies. A fancy high-tech solution is not going to deliver if we set aside people issues. A concept can be placed into a C-Business Map, but should next be piloted to ensure win-win outcomes for all participants. A collaboration solution is never stagnant. It is changing and can be used for continuous improvements. The very nature of Internet collaboration allows for exploration leading to continuous improvement, resulting in growing and successful businesses. A suggestion on collaborate efforts – perform benchmarking to stay current.

These proceedings were written by Erik Boe of the Silicon Valley World Internet Center.

Table 1: Supply Chain Management

The Future of Collaborative Business: Supply Chain Management				
Today		In 12 to 18 Months		
Status Quo	**Challenges**	**Needs**	**Opportunities**	**Solution Providers**
• Wide range of capabilities required to implement • Many standards complicates solutions • Definition of SCM varies • Many points of integration • Historical "baggage"	• Real-time data exchange • Integration of systems • Adoption of systems and processes • "Be part of the family" (long-term commitment, trust, sharing) • Lack of focus on value to customer	• Event management • Rapid, accurate information exchange • Gain trust • Connectivity to new areas such as R&D • Platform for dynamic collaboration incorporating multiple standards • Flexible, easy-to-use and integrate, business-rule driven participation • Customer-driven solutions • Manage complex relationships • Ability to share supply-chain-management value among participants • Low barrier of entry • Knowledge sharing across the entire design-to-operations chain	• Small and medium B2B collaboration w/carrier firms • Interoperability of different eModels • Standardization • Time to Value solutions • Outsourcing and management of these services • New services for value creation	**Types of providers** • Enablers of interoperability • Aggregation point providers • Contract manufacturers • Global logistics firms • Big 5 consulting firms **Specific firms** • Ariba/Agile • SAP • Oracle • i2 • Commerce-One • Atlas Commerce • FreeMarket/Adexa

Table 2: Customer Relationship Management

The Future of Collaborative Business: Customer Relationship Management				
Today		In 12 to 18 Months		
Status Quo	**Challenges**	**Needs**	**Opportunities**	**Solution Providers**
• Definition of CRM is unclear	• "Live It" - Obtain longer-term relationships / trust • Share common goals • Maximize value of relationships • Define and implement solutions to problems • Implement total solutions, incorporating knowledge of customer base (which is kept current) • Privacy and Security	• Manage customer-like relationships • Economics (investment vs. return) • Ability to manage complex relationships • Manage customer segmentation • Provide access to CRM solutions for small and medium-sized organizations • Always- on, always-there infrastructure	• Collaboration package around customer needs • Outsourcing • Customizable & scaleable solutions • Re-define corporate views to customer (which means a redefinition of core businesses)	**Types of providers** • Full-service, end-to-end providers • Big 5 consulting firms **Specific firms** • Siebel • Clarify • Oracle • Commerce One • Bowstreet

Table 3: eMarketplaces

The Future of Collaborative Business: eMarketplaces				
Today		In 12 to 18 Months		
Status Quo	**Challenges**	**Needs**	**Opportunities**	**Solution Providers**
• Instant messaging • Project room solutions • Decline in public exchanges (move to private) • Non-Mission critical processes on public exchanges • Reduction in funding of public exchanges	• Make use of information value • Limited value from public exchanges today • Unclear path to profitability • Integrate suite of tools • Security • Maintain brand • Integration of use of public and private exchanges for a company • Information ownership	• Standards or protocols • Moderate moderation • Knowledge management • Access	• Public exchanges must add value and privacy • Creating a knowledge pool • Turing information into new business models	**Types of providers** • Consolidated market places • New functionality providers • Infrastructure providers • TELCOs • Financial services providers • Aggregate Data **Owners** • Intellectual property brokers