ELECTRONIC COMMERCE

Electronic commerce and its related technologies are unquestionably the current leading-edge business and finance delivery systems for the 21st Century. The expansion in the application of technologies and the delivery of these technologies into the hands of consumers has made the vision, the dream, the fantasy, of conducting business electronically, anywhere in the global community, a reality. Electronic Commerce (EC) is no longer just a concept; it is a market force to be reckoned with. As more and more organizations launch Internet/World Wide Web (WWW) home pages and intranets to disseminate company/product information, and expand their customer base, countless yet unnamed companies are just beginning to investigate this alternative. These companies are realizing that business via the Internet is inevitability that they will not be able to ignore. The lure of reaching additional customers, expanding market shares, providing value-added services, advancing technological presence, and increasing corporate profits is just too valuable to disregard, and will eventually attract companies to electronic commerce like moths to a flame.

Many businesses will rush headlong into this cyber marketplace in an attempt to stake their claim to these potential riches, unaware of the risks which await them as they venture forth into this “new frontier.” Unfortunately, if not properly controlled, the organization’s leap to electronic commerce will result in the same fate as the moth’s fatal attraction to the flame. The move to “cyber-business” requires the commitment of the entire corporation. Accounting and audit professionals along with security, telecommunications, legal, and marketing personnel must all become involved with the planning, securing and control of this electronic business.

Defining Electronic Commerce: Electronic commerce is quickly entering our daily vocabulary, becoming common terminology. But, what exactly is electronic commerce, and why is EC quickly becoming a phenomenon to be reckoned with?

Depending upon the industry, and upon the company’s grasp of technology and the implementation of that technology into the fabric of daily processing activities, EC has varied definitions. A fairly broad definition of EC is given below:

Electronic commerce is the process of doing business electronically. It involves the automation of a variety of business-to-business and business-to-consumer transactions through reliable and secure connections.

It would be unfair to give the impression that this is an all-inclusive definition for such an evolving, maturing business strategy. To demonstrate, a limited examination of EC-related literature revealed the following definitions of EC:

- Electronic Commerce is a composite of technologies, processes and business strategies that foster the instant exchange of information within and between organizations. EC strengthens relationships with buyers, makes it easier to attract new customers, improves (and in some cases reinvents) customer responsiveness, and opens new markets on a global scale. (Greg Martin, Interchange Software Group of Sterling Commerce)

- Electronic Commerce is the application of various communications technologies to provide the automated exchange of business information with internal and external customers, suppliers and financial institutions. Examples of these technologies include Electronic Data Interchange (EDI), bar coding, scanning, E-mail and fax, to name a few. The bottom line is that Electronic Commerce requires a paradigm shift in the way corporations do business today. (Electronic Commerce Forum)

- Electronic Commerce, simply put, is the automation of the business process between buyers and sellers. (IBM Corporation)

- Electronic business transactions, without paper documents, using computer and telecommunication networks. These networks can be either private or public, or a combination of the two. Traditionally, the definition of electronic commerce has focused on Electronic Data Interchange (EDI) as the primary means of conducting business electronically between entities having a pre-established contractual relationship. More recently, however, the definition of electronic commerce has broadened to encompass business conducted over the Internet (specifically the Web) and includes entities not previously known to each other. This is due to the Web's surge in popularity and the acceptance of the Internet as a viable transport mechanism for business information. The use of a public network-based infrastructure like the Internet can reduce costs and "level the playing field" for small and large businesses. This allows companies of all sizes to extend their reach to a broad customer base. (The American Institute of Certified Public Accountants)

Thus, it should be apparent that currently there is no single, globally accepted definition of EC, and there may never be EC could be considered a methodology which, depending on an organization's needs, can involve different technologies and value-added services. These technologies and services can include, but are not be limited to: electronic data interchange (EDI), e-mail, electronic funds transfer (EFT), electronic benefits transfer (EBT), electronic forms, digital cash (DC), interoperable database access, bulletin boards (BBs), electronic catalogs, intranets, cable services, World Wide Web (WWW)/Internet services, electronic banking (EB), Web broadcasting, push technologies, Web site management tools, Extranets, Internet Telephony, Bar-coding - 2D, Imaging, Internet - Electronic Forms, Internet - Publishing, , Voice Recognition, security services such as firewalls, encryption, and gateway managers and many more.

Thus, EC is not a single technology, but rather a sophisticated combination of technologies and consumer-based services integrated to form a new paradigm in business transaction processing. The future of EC is bright and viable—the application, however, has not yet reached full integration into the business mainstream. Several significant hurdles remain, which must be cleared before electronic commerce will become a mainstay business strategy.

Electronic Commerce impacts a broad number of business activities such as:

- Marketing, sales and sales promotion
- pre-sales, subcontracts, supply
- financing and insurance
- commercial transactions: ordering, delivery, payment
- product service and maintenance
- co-operative product development
- distributed co-operative working
- use of public and private services
- business-to-administrations (concessions, permissions, tax, customs, etc)
- transport and logistics
- public procurement
- automatic trading of digital goods
- accounting

Benefits of Electronic Commerce Application and Implementation: EC presents many benefits to individual organizations, consumers, and society as a whole.

1. Reduced costs to buyers from increased competition in procurement as more suppliers are able to compete in an electronically open marketplace.

2. Reduced errors, time, and overhead costs in information processing by eliminating requirements for re-entering data.

3. Reduced costs to suppliers by electronically accessing on-line databases of bid opportunities, on-line abilities to submit bids, and on-line review of rewards.

4. Reduced time to complete business transactions, particularly from delivery to payment.

5. Creation of new markets through the ability to easily and cheaply reach potential customers.

6. Easier entry into new markets, especially geographically remote markets, for companies of all sizes and locations.

7. Better quality of goods as specifications are standardized and competition is increased and improved variety of goods through expanded markets and the ability to produce customized goods.

8. Faster time to market as business processes are linked, enabling seamless processing and eliminating time delays.

9. Optimization of resource selection as businesses form cooperative teams to increase the chances of economic successes, and to provide the customer products and capabilities more exactly meeting his or her requirements.

10. Reduced inventories and reduction of risk of obsolete inventories as the demand for goods and services is electronically linked through just-in-time inventory and integrated manufacturing techniques.

11. Ability to undertake major global programs in which the cost and personnel needed to manage a non-automated system would be unreasonable or prohibitive.

12. Reduced overhead costs through uniformity, automation, and large-scale integration of management processes.

13. Reduced use of ecologically damaging materials through electronic coordination of activities and the movement of information rather than physical objects)

14. Reduced advertising costs.

15. Reduced delivery cost, notably for goods that can also be delivered electronically.

16. Reduced design and manufacturing cost.

17. Improved market intelligence and strategic planning.

18. More opportunity for niche marketing.

19. Equal access to markets (i.e. for small-to-medium enterprises (SMEs) vis-a-vis larger corporations)

20. Access to new markets.

21. Customer involvement in product and service innovation (Caniglia 1996, Timmers, 1996)

Clearly, the benefits of corporate-wide implementation of EC are many, and this list is by no means complete. With the benefits, however, also come the risks. An organization should be cautious not to leap blindly into EC, but rather first develop an EC strategy, and then organize a corporate-wide team to implement that strategy. Key users throughout the organization should be represented on this implementation team.