

A Publication from INPUT's Federal Information Technology Market Program

U. S. Electronic Commerce/EDI Federal Markets

This Research Bulletin is being issued as a preview of INPUT's report, *U. S. Electronic Commerce/EDI Markets, 1991-1996*. It provides an overview and summary of the findings in the report.

Market Overview

INPUT defines electronic commerce (EC) as the electronic transfer of information among organizations in a structured application. The scope of this definition of EC includes a wide variety of electronic transactions. Electronic data interchange (EDI) is the commercial standard that has been mandated for use in the government by OMB when the government uses typical electronic business transactions. EDI is used to transfer electronic purchase orders, invoices, bills of lading, tax information and financial reports.

A large number of EC applications exist or are being developed. Treasury and other agencies use standard electronic funds transfer (EFT) formats when moving money. Some entitlement programs are currently conducting demonstration projects for electronic benefits transfer payments (EBT). CALS is an evolving standard to communicate procurement information. The EDMICS standard is used for the transfer of engineering drawings and to facilitate concurrent engineering. SGML is the standard adopted for transfer of electronic documents.

In general, government agencies try to balance conflicting demands for more information and less paperwork. Virtually any area of the government that involves a great number of transactions is a candidate for EC. These market pressures are illustrated in Exhibit 1.

In its drive to improve productivity, to do more with less, the federal government is growing increasingly reliant on information technology. In some cases, budget constraints are actually fueling the growth of EC.

Exhibit 1

Federal Market Pressures

- Need for improved productivity
- Technical staff shortage
- Budget deficit
- Commercial expectations
- Mandated use

Source: INPUT



The benefits of EC have been proven by numerous demonstration and pilot projects and major development efforts. The opportunities for technology companies are shifting from the very large developmental projects in a few agencies to smaller, production-oriented systems in numerous agencies.

Information technology vendors to the federal government are affected in two ways. First, there is the obvious opportunity to deliver products and services that address this need. Less intuitive is the need for all suppliers to develop the ability to interact with the government using these processes. The vendors who adopt EC early and conform to government standards will have a competitive advantage.

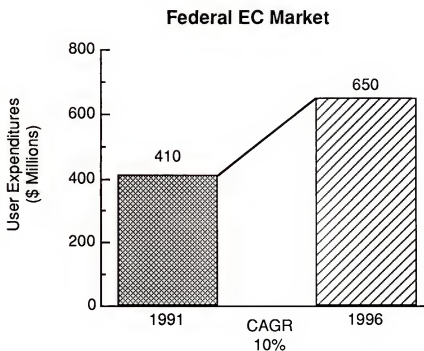
Market Forecast, 1991-1996

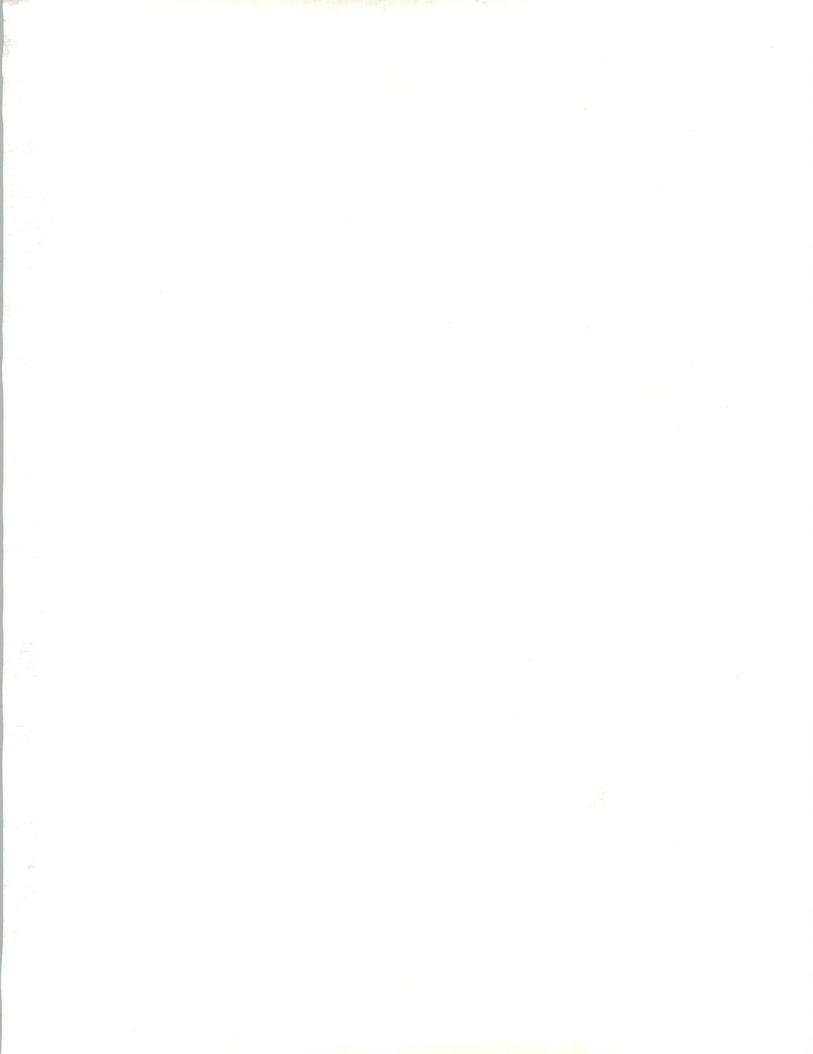
INPUT estimates that the federal EC market for network services, software, professional services and related equipment will increase

from \$410 million in FY 1991 to \$650 million by FY 1996, a compound annual growth rate of 10%. Exhibit 2 illustrates INPUT's market forecast. Significantly more detail is available in the full report. This estimate does not include expenditures by state and local governments or commercial entities external to the government. These entities will also purchase similar products and services necessary to communicate electronically with the federal government.

INPUT believes this to be a conservative market analysis and forecast. There are additional EC opportunities included as part of other system acquisitions and enhancements. A single successful, large program could cause the market to increase. For example, the USDA's Food and Nutrition Service pilot project to electronically replace food stamps could result in major software and equipment purchases. INPUT will reexamine this market later in 1992.

Exhibit 2





Federal Market Issues

All of the government CALS effort has been consolidated in the Joint CALS Management Office (JCMO) under Major General Russ Baldwin. The JCMO has an FY 1992 budget of \$230 million for 25 different projects.

Although CSC has been awarded the final CALS contract, there is substantial work outside of that contract available to other vendors. Vendors who perform work in this office will be in an advantageous position to become suppliers for other agencies and projects. INPUT expects CALS to expand to include several standards and to be adopted by other agencies as well as by major government suppliers. Standards will continue to evolve and vendors must keep current.

Several of the EC systems that are in the final stages of implementation are very visible and have brought recognition to the responsible government managers. These spokespersons for EC have set examples at several agencies. These highly visible successful examples are clearing the way for many other applications.

There has been some concern that government policies, regulations and laws may not allow for the use of electronic documents and signatures. The legal validity of electronic documents is completely supported by existing laws and regulations or the necessary regulations will be modified. Although the use of electronic signatures is still under development, it is not expected to be a barrier to the use of EC.

One remaining major issue is the integration of the EC process into existing internal systems. It is a rather simple process to electronically format and transmit data. The real issue is the location and extraction of the relevant data prior to its transmission and the mapping of the received data into the appropriate data bases and files. These areas require a substantial amount of customization of software and systems. Often, while EC is being adapted to internal systems, the entire process of handling the data is also upgraded.

This Research Bulletin is issued as part of INPUT's Federal Information Technology Market Program for the information services industry. If you have questions or comments on this bulletin, please call your local INPUT organization or John Frank at INPUT, 1953 Gallows Road, Suite 560, Vienna, VA 22182, Telephone (703) 847-6870, Fax (703) 847-6872.



About INPUT

INPUT provides planning information, analysis, and recommendations for the information technology industries. Through market research, technology forecasting, and competitive analysis, INPUT supports client management in making informed decisions.

Subscription services, proprietary research/consulting, merger/acquisition assistance, and multiclient studies are provided to users and vendors of information systems and services. INPUT specializes in the software and services industry which includes software products, systems operations, processing services, network services, systems integration, professional services, turnkey systems, and customer services.

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