

Report to Congressional Committees

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ACQUISITION REFORM

Obstacles to Implementing the Federal Acquisition Computer Network





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The Federal Acquisition Streamlining Act of 1994 (FASA), Public Law 103-355, mandated the establishment of a Federal Acquisition Computer Network (FACNET) architecture to enable federal agencies and vendors to do business electronically in a standard way. FACNET is intended primarily for purchases valued above the micro-purchase threshold (\$2,500) up to the simplified acquisition threshold (currently \$100,000). Federal officials and others expected many benefits from FACNET, including expanded contracting opportunities for small businesses, increased competition and lower prices for goods and services, reduced contract processing times, simplified procurement processes, and improved federal productivity.

As part of our ongoing work on FASA implementation, we reviewed the federal government's progress in developing and implementing FACNET. Specifically, we ascertained (1) federal agencies' use of FACNET, (2) problems and benefits of using FACNET, (3) concerns relating to FASA's requirements for FACNET, and (4) management obstacles to effective governmentwide implementation of FACNET. For this report we obtained information from 18 federal agencies that in fiscal year 1995 accounted for about 90 percent of both the number and dollar value of federal procurement actions of \$100,000 or less reported to the Federal Procurement Data System (the governmentwide procurement database). The Department of Defense (DOD) alone accounted for approximately 80 percent of the number and value of these reported actions. (A list of the responding agencies is in app. I.)

Background

On October 26, 1993, a presidential memorandum established a governmentwide goal of streamlining acquisition through the use of electronic commerce (EC). EC, the electronic exchange of the information needed to do business, embraces many technologies, including electronic data interchange (EDI), electronic mail (E-mail), computer bulletin boards, and electronic funds transfer. EDI is the computer-to-computer exchange of routine business documents using standardized data formats. To meet the President's October 1993 goal, a governmentwide program to develop and implement an EDI-based architecture for federal acquisition was initiated.

¹Both thresholds were established by FASA.

Title IX of FASA, enacted on October 13, 1994, provided the statutory framework for the governmentwide EC/EDI initiative.² FASA mandated the development and implementation of a governmentwide FACNET architecture to expand small business access to the government marketplace and simplify and speed the solicitation and award of competitive procurements. FASA requires that FACNET provide (1) widespread public notice of both contracting opportunities and awards; (2) a means for vendors to electronically review, request information on, and respond to solicitations and similar information; and (3) recordkeeping on each procurement action. The act also requires that, if practicable, FACNET provide other capabilities, such as issuing orders under existing contracts and making payments.

FASA does not specify a particular governmentwide EC/EDI systems architecture or design but does require FACNET to use commercial hardware and software, provide universal user access, and employ nationally and internationally recognized data formats. Throughout this report, the term "FACNET infrastructure" refers to the communications and computer systems that transmit EDI transactions to and from federal agency procuring activities and vendors.

The Administrator for Federal Procurement Policy, who heads the Office of Federal Procurement Policy (OFPP) in the Office of Management and Budget, has responsibility for overall policy direction and leadership of the Facnet program. The Electronic Commerce Acquisition Program Management Office (ECA-PMO), co-chaired by the General Services Administration (GSA) and DOD and reporting to the Administrator, has been chartered to coordinate and oversee Facnet implementation throughout the federal government. Several agencies have been tasked to lead specific governmentwide Facnet projects. In particular, DOD has lead agency responsibility for developing, operating, and supporting the Facnet infrastructure and a new federal centralized contractor registration database to be used with it.

Results in Brief

Overall, the federal government has executed relatively few procurement actions through facnet.³ Available data indicates that in 1995 less than 2 percent of about 2 million federal procurement actions valued at \$2,501 to

²Essentially, the FACNET program merged with the ongoing governmentwide initiative.

³Throughout this report, the term "procurement actions" includes purchase orders and other new contract awards as well as task orders (for services) and delivery orders (for products) under existing contracts, as reported into the Federal Procurement Data System.

\$100,000—FACNET's target dollar range—were accomplished through FACNET. DOD executed the vast majority of all FACNET procurement actions that federal agencies have reported.

Difficulties doing business through facnet have overshadowed the benefits of using it. For example, lost, late, and duplicate transactions and network interruptions have frustrated government and industry users and delayed procurements. Officials from at least 14 of the 18 agencies we contacted rated the lack of (1) a sound facnet infrastructure, (2) effective engineering and operational management, and (3) a well-populated and fully functional centralized contractor registration database as great or very great obstacles to effective facnet implementation.

Officials of many federal agencies said the current facnet approach is out of step with new, cost-effective technologies and buying practices, such as the Internet and electronic ordering from online catalogs. Although facnet has, in some instances, resulted in lower prices and expanded access to vendors, agency officials and vendors often said that facnet is not producing the benefits expected. Moreover, agencies' analyses have concluded that using facnet to award contracts of \$25,000 or less often takes longer and requires more resources than traditional simplified purchasing methods for such awards.

As mandated by FASA, FACNET implementation has focused primarily on competitive contract awards, requiring agencies to exchange information with multiple, often unknown vendors. Organizations with the most success in using EDI technology for purchasing, however, typically use it to transmit high-volume, routine, and repetitive transactions, such as delivery orders under existing contracts and invoices, with a small group of known suppliers. Federal officials have stated that FASA's requirement to focus FACNET's implementation principally on competitive contract awards—a government-unique application of EDI technology—may not have been a good approach and has contributed significantly to FACNET's problems.

In addition to this fundamental problem, agencies and vendors have consistently cited leadership and management shortcomings as major reasons for delays and unresolved problems in FACNET implementation. The Administrator for Federal Procurement Policy, and other OFPP and ECA-PMO officials have (1) acknowledged shortcomings in management of the governmentwide FACNET program and (2) said that ad hoc funding and staffing of the ECA-PMO has hampered effective program management effort. Agency officials also expressed considerable uncertainty about

what the governmentwide strategy for FACNET implementation is. Currently, the federal government lacks a coherent strategy and implementation approach for efficiently and effectively carrying out the agencies' requirements for the acquisition function using various EC technologies and purchasing methods, where appropriate.

Limited Use of FACNET

FASA requires, among other things, the head of each executive agency to provide for implementation of full facnet capability "as soon as practicable" after fasa's enactment. An agency can be certified as fully facnet capable when more than 75 percent of its facnet-eligible contract awards valued at \$2,501 to \$100,000 were made through facnet during the preceding fiscal year. However, fasa's prescribed process for determining what constitutes eligible contracts precludes such a determination until October 12, 1997, at the earliest. Therefore, the information needed to measure progress toward meeting these fasa criteria for facnet success will not be available before that date.

Although the information needed to measure progress toward FASA's criteria is not available, federal agencies have reported executing relatively few procurement actions through FACNET. For example, federal agencies reported 113,000 FACNET procurement actions for 1995. Available information indicates that (1) only about 25 percent of these actions were valued at \$2,501 to \$100,000 and (2) such actions may have represented less than 2 percent of all 1995 federal procurement actions in that dollar range. The remaining 75 percent of the 113,000 actions were almost all for \$2,500 or less, and available information indicates that such actions may have represented less than 1 percent of all 1995 federal procurement actions in that dollar range.⁷

⁴About 1 year earlier, the President's memorandum set several milestones for the governmentwide EC initiative, which included implementing a full-scale EC/EDI system by July 1995 and completing—to the maximum extent possible—its governmentwide implementation for appropriate federal purchases by January 1997. FASA provides various exceptions from the use of FACNET in cases where individuals in specified federal positions determine that such use is not practicable or cost-effective.

⁵FASA also requires that governmentwide, before January 2000, at least 75 percent of facnet-eligible contracts in this same dollar range be awarded through FACNET during a preceding fiscal year.

⁶In addition, data on the total number of contract awards within the \$2,501 to \$100,000 dollar range is not collected governmentwide. DOD, however, does collect such information.

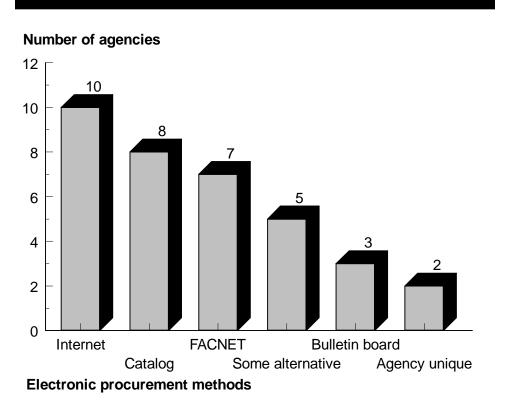
⁷We based these statements on the best information available. This included a dod-funded study by the Logistics Management Institute, which estimated that 12 percent of DOD's fiscal year 1994 procurement actions were for \$2,501 to \$100,000 and 85 percent were for \$2,500 or less. Assuming these estimates are reasonably accurate for governmentwide use, we applied them to the 18 million procurement actions federal agencies reported to the Federal Procurement Data System for calendar year 1995.

According to OFPP, the number of FACNET awards can be expected to remain relatively small unless FACNET proves to be a better, cheaper, faster purchasing technique than traditional small purchase methods.

DOD made the vast majority of the 113,000 facnet procurement actions, while civilian agencies made few. For example, DOD reported 97 percent of the facnet procurement actions reported by federal agencies for 1995. (See table II.1 in app. II for data on 1995 and table II.2 for data covering January through March 1996.) According to DOD, (1) it has inserted EC/EDI enabling technology into 300 sites over the past 2 years, and (2) these sites generate 80 percent of DOD's procurement actions of \$100,000 or less.

Several agencies reported that their EC implementation plans call for using a number of different EC technologies. OFPP indicated that (1) each agency was asked to develop its own implementation plan to integrate EC into its internal processes and (2) since EC technologies are evolving, OFPP allowed the agencies a high degree of discretion in how they applied EC. According to DOD, its approach from the outset has been to utilize any and all technologies that were appropriate for a given business transaction. In figure 1, we show that officials of the agencies we contacted cited most frequently the Internet, electronic catalogs, and FACNET, in that order, as EC tools or methods they expected to have great or very great importance to their agencies through 1999. (For details on agencies' responses regarding this, see table III.1 in app. III.)

Figure 1: Agency Views on Relative Importance of Various Electronic Procurement Methods



Source: Our analysis of 17 agencies' responses. One agency, the Department of Commerce, did not provide its views on this topic.

Problems Using FACNET

Since the inception of the FACNET program, government agencies and vendors have identified operational problems with the infrastructure and the centralized database for contractor registration. Our review indicated that, as of September 1996, these problems had still not been resolved. Also, agency officials expressed preferences for EC purchasing methods other than FACNET, and many vendors found few incentives to participate in FACNET. Agencies and vendors reported that FACNET has resulted in lower prices and expanded markets in some cases but, more generally stated that FACNET was not providing the benefits expected.

Background on FACNET

DOD began developing the current facnet infrastructure in response to DOD and governmentwide EC initiatives preceding FASA's enactment. DOD has operated and continued to develop the infrastructure with the stated purpose of enabling all federal agencies to implement both FACNET requirements and the goals of the governmentwide EC/EDI program. The following simplified description illustrates a business transaction moving through the current FACNET infrastructure. A buyer at a procuring activity electronically prepares and transmits Requests for Quotations or other solicitation data from the activity's automated procurement system through the infrastructure, which performs several functions. These include translating the data into standardized EDI formats and relaying the information to privately owned, participating Value-Added Networks (VAN). VANS distribute the information—in a mutually agreed-upon format—to vendors that subscribe to their services. Vendors, in turn, transmit their quotations through the network back to the agencies. After the buyer selects the winning vendor, a purchase order is transmitted to the vendor. Then, a broadcast notice announcing the winning vendor is transmitted to the VANS for distribution to vendors.

A key goal of FACNET is to present a "single face to industry." Among the critical elements of the single face concept are that vendors, by registering once in a governmentwide Central Contractor Registration (CCR) database, have access to and can respond to government solicitations and similar information through any single point of entry, using a single set of standards. Ideally, this would give a vendor easy access to information on numerous proposed contracts and awards including, for example, federal contracting opportunities up to \$100,000 that previously would have been either listed in the Commerce Business Daily or manually posted at the procuring activity. And, the vendor could respond to government buyers in any agency using a single electronic system, as opposed to dealing with numerous different agency or procuring activity-unique systems.

Operational Problems Reported Throughout FACNET Infrastructure

There was a broad consensus that FACNET has had operational problems. For example, government and industry FACNET users reported hundreds of malfunctions in sending and receiving FACNET transactions. Lost, late, and duplicate transactions and network interruptions frustrated agencies.

⁸Participating VANs must be tested and certified by DOD.

⁹According to DOD, this means that all government agencies would conduct EDI using American National Standards Institute X12 standards, common implementation conventions, a common telecommunications infrastructure, and a common set of business practices. (See Introduction to Department of Defense Electronic Commerce, a Handbook for Business.)

VANS, and vendors and delayed procurements. ECA-PMO officials and users stated that these problems were significant.

Most of the 99 contracting offices responding to a recent Army-wide survey of the effectiveness of facnet reported problems with the facnet infrastructure. Peedback from Air Force and Navy operational contracting activities reported to the Under Secretary of Defense (Acquisition & Technology) in July and August 1996 also stated that facnet often had not worked well. Similarly, at least 14 of the 18 agencies we contacted cited the lack of a sound facnet infrastructure and the lack of effective engineering and operational management as great or very great obstacles to efficient and effective implementation of facnet. (See table III.2, in app. III, for details.)

Buyers and vendors have been reluctant to do business through FACNET, in part, because of operational problems. For example, in April 1996, a senior contracting official at the Army's Training and Doctrine Command stated that FACNET did not function well enough to support the Command's requirements in a meaningful way. He noted that outgoing FACNET solicitations had been lost or received by vendors as late as 2 weeks after transmittal and responses vendors had sent out soon enough to be on time were received at the Command several days after the closing date. He added that (1) vendors were frustrated about spending time and money to become FACNET-capable and then discovering that their quotes did not make it through the system and (2) vendors often faxed their quotes to Training and Doctrine Command buyers, in addition to transmitting them through FACNET, to ensure receipt. Another Army contracting activity reported that its buyers routinely mail out copies of FACNET award notices because vendors complained that they were not receiving them through FACNET.

In July 1996, an official with the San Antonio Electronic Commerce Resource Center who works with small businesses and government offices in introducing EC into their business practices told us that FACNET has had its share of growing pains. In particular, he noted that lost and duplicate transactions and a general instability of FACNET have caused many vendors to question the wisdom of participating on FACNET.

For vendors, problems in transmitting and managing transactions through FACNET can result in lost business opportunities and additional

¹⁰Information Paper on Survey of U.S. Army Contracting Offices conducting Electronic Data Interchange through the Federal Acquisition Computer Network, May 1996.

transmission fees paid to VANs. For the government, such problems cause delays in getting needed supplies and services, reduce productivity, and lead to bid protests. In June 1996, for example, our office considered a protest concerning a FACNET acquisition in which three quotes submitted through FACNET were lost. ¹¹

DOD has recently made major design changes to enhance the FACNET infrastructure. Officials responsible for the redesign stated that the new infrastructure should reduce the operational problems that have been identified, including an inability to track transactions through FACNET, and lost and late transactions. The DOD Inspector General recently reported that the proposed redesign, referred to as the Electronic Commerce Processing Nodes, should reduce the recurring problems related to lost and late transactions, the inability to track transactions, and the lack of acknowledgment for transactions. ¹² In a separate report, the DOD Inspector General recommended that DOD verify that implementation of the Electronic Commerce Processing Nodes corrects technical problems associated with FACNET. ¹³

CCR Database Is Not Operating as Intended

Effective implementation of the CCR database is fundamental to the current FACNET strategy and to achieving a single face to industry. The goal is to provide (1) contractors with a one-time registration process for doing business with all government procuring activities and (2) government buyers with one central database to query for contractor information. Vendor registration in, and agency use of, the CCR database is mandated in the governmentwide Federal Acquisition Regulation (FAR) implementing FASA's requirements for FACNET. The database, however, has been experiencing significant problems, is far behind schedule, and is still not performing its intended role of operating as the single federal contractor registration system.

DOD reported in October 1996 that only about 4,000 of an estimated 300,000 government contractors had validated registrations in the database. Currently, agencies must award contracts to unregistered vendors because the CCR database does not have enough registered vendors to supply the

¹¹S.D.M. Supply, Inc., B-271492, June 26, 1996, 96-1 CPD para. 288, aff"d., Department of the Army—Recon., B-271492.2, Nov. 27, 1996, 96-2 CPD para.

¹²Defense Information Systems Agency Management of Trouble Tickets For Electronic Commerce/Electronic Data Interchange (DOD Inspector General Report No. 97-010, Oct. 28, 1996).

¹³Vendor Participation in the Federal Acquisition Computer Network (DOD Inspector General Report No. 97-002, Oct. 4, 1996).

full range of products and services needed. Sixteen of the 17 agencies from which we obtained information on this matter cited the lack of a well-populated and fully operational CCR database as a great or very great obstacle to efficient and effective implementation of FACNET. (See table III.2, in app. III, for details.)

Agencies Are Opting for Other EC Methods

According to agency officials, one of the more significant factors limiting the usefulness of FACNET is that other electronic purchasing methods are available that are simpler and faster. For example, purchase cards (government-issued commercial credit cards);¹⁴ the Internet; online catalogs, including the GSA's automated supply schedule contracts; and other commercial alternatives have been introduced into government contracting and their use is growing rapidly. Use of the purchase cards for contract payment, combined with electronic ordering from online contracts, and/or new, more flexible procedures for the use of federal supply schedule contracts provides agencies with readily available alternatives to meeting their procurement needs that were not available just a few years ago, when FASA was being written. Moreover, technology developments are expected to continue to offer opportunities to improve federal purchasing methods.

These developments have led some agencies and many federal officials involved with facnet implementation to question whether—especially for small competitive acquisitions, such as those under \$25,000—the use of the current facnet infrastructure makes good business sense. National Aeronautics and Space Administration (NASA) officials said that NASA intended to concentrate its EC efforts on Internet-based acquisition services and not facnet. Some Air Force and Army contracting activities have also suggested using the Internet instead of facnet. Officials of 15 federal agencies are working together to pursue Internet-based initiatives. ¹⁵

The DOD Inspector General reported that DOD officials responsible for FACNET had (1) acknowledged that the evolution of new technologies was

¹⁴In 1995, purchase cards were used at most federal agencies for over 4 million purchases—worth more than \$1.6 billion—and in 1996 purchase card sales were \$2.9 billion. Most of the 1995 purchases, however, were valued at less than the FACNET target dollar range, and this emphasis is expected to continue. See our report, Acquisition Reform: Purchase Card Use Cuts Procurement Costs, Improves Efficiency (GAO/NSIAD-96-138, Aug. 6, 1996).

¹⁵The Interagency Acquisition Internet Council was established May 22, 1996, to seek and promote ways to optimize use of the Internet in streamlining the federal acquisition process and increasing communications of federal acquisition-related information.

creating alternatives to DOD's original concept of FACNET as the single mechanism for EC/EDI procurements and (2) indicated that alternatives were being analyzed that would still maintain the single face to industry goal. ¹⁶ In a July 1996 memorandum, the Assistant Secretary of the Air Force stated that while the DOD procurement community has recognized that the current network for FACNET needs changing, there is no current solution. In November 1996, DOD expressed the belief that in conducting competitive procurements, the requirements to be FACNET-compliant, particularly the single face to industry goal, are critical. For other than competitive transactions (which includes noncompetitive awards and orders under existing contracts), DOD added, it may not be necessary to meet FACNET requirements.

ECA-PMO officials observed that with agencies now viewing direct buying (through ordering from online catalogs or other existing contracts) as more efficient, the current facnet infrastructure is becoming "less relevant." OFPP and the ECA-PMO officials said they are moving away from a one-size-fits-all approach to facnet implementation in favor of allowing agencies the flexibility to employ the best technology for a particular acquisition. As part of this strategy, they are encouraging agencies to use all types of EC, including facnet, the Internet, purchase cards, and online catalogs—whichever tool makes the most business sense.

Vendors Find Few Incentives for Participation

Many small businesses have stated that the lack of clear and consistent facnet policy, procurement procedures, and specific business information are major disincentives to facnet participation for them. For example, some facnet vendors said that inconsistent and, in some cases, directly opposite practices were used at different procuring activities. They pointed out that

- some buyers accept fax queries for more information and send faxes to clarify FACNET solicitations, while other procuring activities no longer permit use of faxes and will ignore any incoming fax messages;¹⁷
- there seems to be no consistent policy covering procurements exempted from use of facnet;¹⁸ and

¹⁶DOD Implementation of Electronic Commerce in Contracting for Small Purchases (DOD Inspector General Report No. 96-129, May 24, 1996).

¹⁷The proposed FAR Part 13 restructuring rule (published in the Federal Register on Sept. 13, 1996) stated that if an acquisition was conducted through FACNET, agencies need not respond to telephone or fax inquiries from vendors unless they are unable to receive inquiries through FACNET.

 $^{^{18}\!\}text{DOD}$'s policy memorandum, dated June 23, 1995, to its facnet-capable activities required that all simplified procurements be issued via FACNET, unless exempted.

• the number of days a solicitation remains open is highly variable.

Vendor commitment to facnet is influenced by the lack of consistency in procurement procedures and policies like these. ¹⁹

Some vendors complain that they are unable to get the information they need on agencies' and procuring activities' current and future facnet business opportunities. Vendors point out that they need such information to determine whether facnet will generate sufficient revenues to justify the investments needed to participate in facnet. Last year we testified that, depending on the volume of transactions and types of services, businesses could incur costs ranging from about \$70 to several thousand dollars monthly for VAN services alone. The use of VANs is a key component of the current facnet infrastructure.²⁰

Agency officials also stated that FACNET can be expensive for vendors to implement. According to one agency official, vendors are unwilling to make the investment in time and money to participate, because of the problems the government is experiencing with FACNET. More than 40 percent of the contracting activities in the Army's 1996 FACNET survey said that there were insufficient numbers of vendors participating in FACNET. EC program managers at other agencies told us that FACNET solicitations often had to be canceled because of little or no vendor response. According to officials of several agencies, few vendors, particularly small businesses, are EDI-capable and the current FACNET implementation approach offers few incentives for these businesses to participate.

The Administrator for Federal Procurement Policy acknowledged that VAN costs create major problems for small businesses. He added that a small business has to sell a lot to the government to make the investment worthwhile, which could have the effect of concentrating work among a class of EDI-capable vendors that specialize in doing government business over FACNET.

¹⁹In an audit on vendor participation in FACNET, the DOD Office of the Inspector General surveyed 100 vendors, of which 85 identified one or more of the following major impediments to using FACNET to conduct small purchase transactions with DOD. The vendors said they were not participating because (1) they were not aware of FACNET, (2) FACNET was not an appropriate procurement method for some small- and medium-sized vendors, and/or (3) FACNET was unreliable. (See DOD Inspector General Report No. 97-002, pages i, 5, and 7.)

 $^{^{20} \}rm Implementation$ of the Federal Acquisition Streamlining Act of 1994 (GAO/T-NSIAD/AIMD-95-190, July 20, 1995).

DOD acknowledged that there is a cost to small businesses associated with VANS' processing FACNET transactions but stated that the cost of doing business manually often meant the small business had to use an agent to review physical bulletin boards—at potentially 1,400 separate DOD sites—the only places where contracting opportunities under \$25,000 were posted.

Expected Benefits Not Yet Being Realized

In 1993, the National Performance Review stated that exchanging acquisition information with vendors electronically could result in governmentwide savings of up to \$500 million per year, due to increased competition and reduced federal paperwork. On the basis of agencies' reported experiences to date, FACNET has not resulted in the significant benefits that were expected from using EC—savings in time and money and increased federal productivity.

For some facnet procurements, agencies are reporting direct benefits, such as reduced contracting leadtimes, improved price competition, and an increased vendor base. More generally, however, government buyers have found that using facnet to award contracts of \$25,000 or less takes longer and requires more resources than traditional methods. They attribute this, in part, to the frequent need to communicate by telephone and fax with vendors to verify the receipt of a quote, answer questions, or investigate a vendor's capabilities and those of its products. Further, they noted that their efforts have been hampered by a lack of guidance on how to evaluate vendors' responses, particularly when a substantial number of quotes are received and how to determine the timeliness of vendors' quotes.

The results of a U.S. Army Missile Command comparison of 179 facnet actions and the same number and types of non-facnet (and non-edi) actions were that the use of facnet prolonged the procurement process for purchases of \$2,501 to \$25,000 from an average of 3 days to more than 7 days and required extra resources and effort. The Command official responsible for the comparison concluded that for this price range, the cost in time and effort far overshadows any small savings facnet produces. The Department of the Interior performed a similar test at five buying locations and got comparable results.

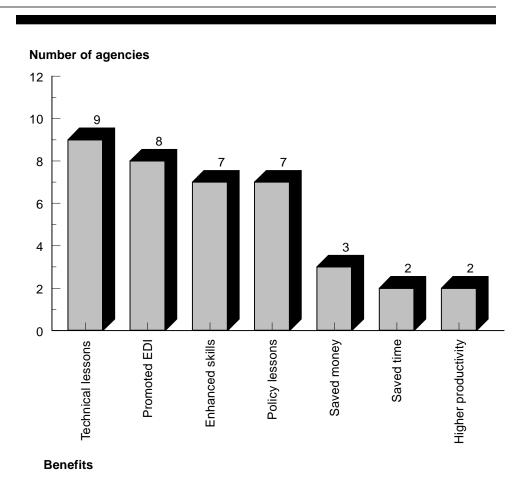
The Administrator for Federal Procurement Policy told us that the problems reported by frontline procurement staff trying to implement FACNET prompted his office to recommend several policy changes last year.

The FAR Council adopted many of these recommended changes, as part of the proposed FAR Part 13 restructuring rule. ²¹ The proposed rule would give agencies greater flexibility in using FACNET, as OFPP recommended, including the authority to describe requirements using multiple brand names for purchases under \$25,000 and conduct more expedited evaluation of vendors' quotes or offers. Additionally, the proposed rule states that agencies need not respond to inquiries (1) by telephone or fax, unless they are unable to receive inquiries through FACNET or (2) through any medium (including FACNET) if doing so would interfere with their ability to conduct the procurement in an efficient manner. The Administrator said these changes were intended to address procurement offices' complaints that FACNET had increased both the resources needed to evaluate quotes and procurement leadtimes, compared with traditional solicitation methods. He said the changes were also intended to enhance FACNET's viability and increase agencies' use of it.

Key agency officials responsible for FACNET implementation at the 18 agencies we contacted cited indirect benefits—such as lessons learned that will likely benefit the government in the future—as the most significant benefits being realized from FACNET. (See table III.3 in app. III for details.) The benefits of FACNET being realized to a great or very great extent, as reported by federal agencies, are shown in figure 2. These results did not differ substantially for DOD and its components, compared with the civilian agencies—which use FACNET much less than DOD.

²¹The proposed rule was published in the Federal Register on September 13, 1996.

Figure 2: Reported Benefits of FACNET Realized by Federal Agencies



Source: Our analysis of 17 agencies' responses. One agency, the Department of Commerce, did not provide its views on this topic.

Concerns About FASA's Requirements for FACNET

Federal officials responsible for facnet stated that the basic concept underlying facnet may not be sound. As mandated by fasa, facnet focuses primarily on competitive solicitations and new contract awards, ²² requiring a federal agency to provide widespread public notice and exchange information with multiple vendors—not just one. As previously noted, fasa requires that facnet provide (1) widespread public notice of contracting opportunities and (2) a means for private sector users to

 $^{^{22}{\}rm FASA}$'s 75-percent criteria for a successful FACNET program, previously discussed, excludes orders under existing contracts—because such orders are not contract awards.

electronically access and review executive agency solicitations and respond to them.

Federal officials said the concept, using EDI technology to focus primarily on relatively low dollar value competitive contract awards to small businesses, may not be the best solution for the procurements targeted. These officials noted that the concept was developed and pilot tested by the executive branch and formed the basis for the FASA approach. The concept emphasizes the use of EDI, a technology that has been used primarily to support a high volume of routine "one-to-one," computer-to-computer business transactions between organizations that have established a close working relationship. Examples of such transactions include delivery orders under existing contracts and invoices exchanged between a company and its regular suppliers. Commercial companies and some federal agencies have found that EDI technology can be very effective when used in this way.

Three federal agencies that are using EDI successfully for one-to-one transactions—the Defense Logistics Agency, GSA, and the Department of Veterans Affairs—reported transmitting a total of about 840,000 delivery orders and 517,000 invoices in 1995. The Administrator for Federal Procurement Policy stated that a lot of progress has been made in federal agency use of EDI technology for acquisition—but outside of FACNET—as shown by these three agencies' efforts on one-to-one transactions. According to DOD, (1) the organizations currently processing these one-to-one transactions are primarily utilizing proprietary solutions, or noncompliant standards, and do not present a single face to industry at this time and (2) maintaining and sustaining such actions are outside DOD's Information Infrastructure—"a FACNET compliant system."

Because the technical and business requirements for such one-to-many transactions differ significantly from one-to-one transactions, agencies using FACNET have not been able to benefit fully from the lessons learned and from long-term familiarity with electronic delivery orders and invoices on the part of commercial companies and the Defense Logistics Agency, GSA, and the Department of Veteran Affairs. Moreover, the use of FACNET for one-to-many transactions is essentially a government-unique business

²³In a one-to-one transaction, information is exchanged between only one company (or organization) and another.

²⁴The three agencies reported transmitting through their own EDI (non-FACNET) systems the following numbers of delivery orders and invoices, respectively, in 1995: the Defense Logistics Agency (325,586 and 93,735), GSA (157,351 and 37,999), and the Department of Veterans Affairs (357,443 and 385,016).

application of EDI, involving different business and technical considerations than one-to-one delivery orders and invoices. Several OFPP, ECA-PMO, GSA, and other agency officials said that focusing FACNET's implementation on competitive procurements has contributed significantly to FACNET's problems and the skepticism that surrounds the existing infrastructure. The Administrator for Federal Procurement Policy and other agency officials also told us that FASA's requirement to focus FACNET principally on awarding relatively low dollar value contracts competitively may not have been a good idea.

Leadership and Management Problems

Implementation of facnet on a governmentwide basis is a substantial undertaking that requires effective leadership and management to be successful. Since facnet's inception, significant technical, business, and policy issues have confronted the facnet program, many of which have not been resolved, delaying facnet implementation. Agencies and vendors have consistently cited the lack of clear leadership, direction, and adequate program management governmentwide as major reasons for delays in problem resolution and implementation of facnet.

Fasa requires the Administrator for Federal Procurement Policy to (1) establish a program to develop and implement facnet; (2) assign a program manager for facnet; and (3) provide for overall direction of policy and leadership in, among other things, the development, coordination, and completion of facnet implementation by executive agencies. Dod is the lead agency responsible for implementing the facnet architecture and the CCR database, including providing policies, procedures, standards of operation, and day-to-day network management. The ECA-PMO, co-chaired by DOD and GSA, was tasked to develop, coordinate, and integrate the programs and tasks needed to implement facnet and the presidential memorandum.

A governmentwide strategy for facnet implementation has not been clearly and convincingly communicated. Officials responsible for facnet implementation in their agencies stated that the governmentwide program has been fragmented and uncoordinated. Neither offp nor the ECA-PMO operates as a focal point of central guidance and governmentwide accountability for facnet. In effect, each agency is left to pursue its own facnet strategy.

In addition, OFPP and the ECA-PMO have not systematically integrated and managed the total framework of projects and functions necessary to

develop, implement, and use facnet and other ec technologies in a manner that reflects the single face goal. As a consequence, the development and use of key components of facnet, including the architecture, the ccr database, operational procedures, business information to attract vendors, and policy guidance on the use of facnet for agencies and the private sector have not been clearly linked. Another consequence is that governmentwide priorities for facnet have not been clearly established, communicated, and linked.

Since the early stages of implementation, agencies have consistently cited the lack of clear leadership and governmentwide program management as major sources of problems and delays in the program. The results of a February 1995 EC roundtable (in which over 20 federal agencies were represented) showed that the most significant concern of the participants was leadership and support.

We found that little progress had been made in resolving concerns about leadership and program management of FACNET. Of the 18 agencies we contacted, 12 cited the lack of effective policy leadership outside their agencies; 13 cited the lack of effective governmentwide program management; and 14 cited the lack of effective FACNET engineering and operational management as great or very great obstacles to efficient and effective implementation of FACNET. (See table III.2, in app. III, for details.)

The key organizations responsible for FACNET—OFPP, DOD, and the ECA-PMO—have not developed and put into place an effective governmentwide management approach that includes (1) a clearly defined program structure; (2) multiyear planning that clearly establishes governmentwide implementation plans, anticipated results, and resource requirements and priorities; (3) systematic review and approval of key FACNET projects; and (4) feedback and evaluation that identifies the progress made and corrective actions needed. Information was also unavailable on the total estimated costs of FACNET implementation—or its major components (such as the infrastructure or CCR database)—or the governmentwide EC program.

The Administrator has acknowledged that there have been shortcomings in management of the governmentwide facnet program. Officials in offpe and the ECA-PMO told us they were aware of the agencies' concerns about the leadership and overall management of facnet implementation. They acknowledge that the kind of program management and reporting described above has not been developed and is needed. However, they

observed that ad hoc funding and staffing of the ECA-PMO from executive agencies has hampered effective program management efforts.

The Administrator told us he had concluded by the summer of 1995, on the basis of discussions with frontline contracting officials, that there were extensive and persistent problems with Facnet implementation. He said that over time he became convinced that (1) Facnet's basic concept (discussed in the previous section) was not sound and needed to be revisited and (2) improved program management would not remedy this fundamental problem. He added that there was not, and still is not, a consensus among agencies' senior procurement executives that these problems were so fundamental that a major redirection of Facnet was needed.

The shortcomings in governmentwide management of the FACNET program have left important issues unresolved. For example, no convincing business case has been made for governmentwide reliance on the current FACNET infrastructure. Similarly, the lack of resolution of questions concerning the CCR database has impeded its implementation. DOD officials responsible for the database told us that even if better processes were put in place for gathering vendor information, benefits expected from sharing this information across government procuring activities would still be contingent on policies and procedures being established concerning access to and ownership of the data gathered. OFPP, ECA-PMO, and DOD officials responsible for FACNET and the CCR database told us that the following obstacles to governmentwide EC must be resolved: (1) unanswered questions on who should have access to the CCR data and how such data should be used by both the government and industry, (2) the absence of policy and procedures for implementing such a governmentwide database, and (3) database security problems.

DOD officials responsible for the FACNET infrastructure, contracting officials, VANS, and vendors stated that many operational problems stem from the lack of clear requirements for the acquisition function and operational procedures that are needed to direct the development and use of the FACNET infrastructure and manage FACNET data. For instance, requirements for archiving data, accessing data, recording critical acquisition information, and auditing FACNET transactions have not been established, and both buyers and vendors have frequently cited the need for an electronic date/time stamp, as well as clear requirements and procedures to record receipt of vendors' quotes by the government.

With respect to VANS, FACNET implementation has been hindered by uncertainties regarding the government's certification process, lack of clear data management policies and procedures, and unresolved questions about VANS' financial and technical responsibilities. VAN representatives and DOD officials responsible for VAN certification and oversight told us that VANS have been operating without a clear understanding of the objectives and requirements of the system. DOD is taking actions to address some of these issues. Specifically, DOD recently issued a revised VAN Licensing Agreement; and some testing and procedural changes reflected in this revised agreement may improve the VAN certification process.

In addition, GSA and OFPP officials stated that the lessons learned in creating a governmentwide EC program, new technology developments, and broader policies affecting EC, such as the requirement to make all payments to vendors electronically by 1999, have made it necessary to take a fresh look at the government's approach to EC in contracting and how best to implement and manage it. ²⁵ OFPP officials said the government intends to make more than 95 percent of its purchases under \$100,000 through EC by the year 2000 in coordination with making electronic payments to vendors.

Conclusion

In the short time since passage of FASA, alternative electronic purchasing methods have become readily available to the government and its vendors. This factor, concerns about FASA's requirements, and the problems associated with the existing FACNET implementation raise important questions concerning whether and to what extent use of the current FACNET infrastructure makes good business sense.

A related issue is how to integrate FACNET and other EC technologies and purchasing methods into a coherent EC strategy and implementation approach for effectively carrying out agencies' acquisition functions and achieving a single face to industry. Clear functional requirements, a coherent strategy, effective governmentwide leadership and program management, and accountability are lacking.

Recommendations

We recommend that the Director, Office of Management and Budget, ensure that the Administrator for Federal Procurement Policy, in consultation with the Secretary of Defense, the Administrator for General

²⁵The Debt Collection Improvement Act of 1996, section 31001 of Public Law 104-134, generally requires all federal payments to be made electronically by 1999.

Services, the NASA Administrator, and the heads of other major federal procuring agencies, develops a coherent and integrated federal strategy—and implementation approach—for using, where appropriate, various EC technologies and purchasing methods, including FACNET, for effectively and efficiently carrying out the agencies' requirements for the acquisition function. The strategy and approach should incorporate consideration of the need to achieve the single-face-to-industry goal.

We also recommend, if executive branch officials conclude that statutory requirements for facnet—such as focusing it on providing widespread public notice of contracting opportunities and exchanging information with multiple vendors—are impediments to the implementation of the governmentwide EC strategy, that the Director of the Office of Management and Budget seek legislative relief.

Agency Comments

In commenting on the draft of this report, NASA, GSA, OFPP and DOD generally agreed with our findings and recommendations, but DOD indicated that—since the completion of our audit work in September 1996—it was no longer experiencing operational problems with FACNET and the CCR system.

NASA stated that it agreed that a mandated facnet approach, based solely on EDI, does not make the best business sense for federal EC. NASA stated that it was encouraged by our recommendation that NASA join with other agencies in developing a coherent strategy and implementation approach that takes advantage of available EC technologies.

GSA stated that our findings are correct in targeting leadership improvements. GSA stated that there have been leadership challenges in the implementation of FACNET as well as technical and procedural problems with the use of EDI for public requests for quotation. GSA specifically noted that (1) civilian agencies, in many cases, have not provided adequate resources, training, and vendor outreach required to successfully implement FACNET or EC in general and (2) the ECA-PMO has been hindered by a lack of funding and staffing.

OFPP stated that our report was very helpful in focusing its governmentwide EC efforts. To help focus on solutions, OFPP stated that a committee of the President's Management Council has been established to assist agency heads to manage the transition from paper to electronics, focus resources, increase management efficiency, accelerate implementation, and connect resources to results. OFPP said it is continuing to pursue the development of FACNET for use, where appropriate, to streamline acquisition processes. OFPP said it is also concerned that FACNET and all procurement policies offer real improvements in serving the user and meeting the important missions entrusted to government in a cost-effective way.

Both GSA and OFPP stated that they are working together and with other agencies, which includes participation by the President's Management Council, to address the leadership and policy direction concerns raised and to develop a new EC management framework. OFPP also stated that it has taken steps to develop and implement that framework to better integrate EC throughout government. In addition, GSA said this new management structure will be put into place over the next several months, will bring a better focus and problem resolution to the program, will be cross-functional, and will be able to better review EC programs and provide more long-range planning.

DOD described recent enhancements it has made to facnet's infrastructure and the CCR system and stated that it was no longer experiencing operational problems. These enhancements included implementing (1) the Electronic Commerce Processing Nodes on November 1, 1996, to improve the facnet infrastructure's throughput and accuracy and (2) a World Wide Web site and dial-up modem capability on October 1, 1996, which allows vendors to register for free in the CCR database. DOD added that it is in the process of developing a strategic plan to increase the CCR population in 1997.

In addition, DOD described other enhancements. For example, it stated that it has recently completed an EC Strategic Plan that encompasses all functional areas within the Department (procurement, finance, logistics, transportation, personnel, medical, etc.) and includes all forms of EC (EDI, fax, bar coding, etc.). According to DOD, this approach will provide a single face to industry and allow the maximum exchange of data between functional areas. DOD also said it is finalizing an EC directive that establishes roles and responsibilities throughout the Department pertaining to the implementation of EC in all functional areas.

DOD stated that it will continue (1) to execute its facnet implementation plan and (2) increase the volume of transactions through the infrastructure over the next three fiscal years. Finally, DOD stated that it is ready to work with the OFPP, GSA, and NASA Administrators and the heads of

other major federal procuring agencies to assist them in their development of independent strategies and the overall federal EC strategy for federal procurement.

The comments from NASA, GSA, OFPP and DOD are reprinted in their entirety in appendixes IV through VII, respectively. We have made some changes in the report, where appropriate, based on these comments.

Scope and Methodology

To address our objectives, we asked EC program managers and comparable agency officials at DOD, its four major buying components, and 18 federal civilian agencies to give us information and observations on their agencies' efforts to implement FACNET. We sent a Data Collection Instrument (DCI) to 23 federal organizations; 18 responded to our questions from late March through May 1996. The DCI specifically asked for agency data and information related to (1) current FACNET operations, (2) current and potential FACNET procurement transactions, (3) benefits from using FACNET, (4) obstacles to governmentwide implementation of FACNET, (5) potential use of FACNET for simplified acquisitions, and (6) changes needed in the FACNET development and implementation strategies. When necessary we conducted follow-up interviews with respondents to clarify DCI responses and obtain additional information.

In addition, to assess federal agencies' use of FACNET, we asked the agencies to verify their FACNET transaction data (e.g., number of solicitations, responses received, purchase and delivery orders, and amount of awards) for the periods January through December 1995 and January through March 1996, which was the latest complete data reported by the ECA-PMO. We also obtained supplemental FACNET transaction data from the Departments of Commerce, Defense, Energy, Housing and Urban Development, Health and Human Services, and Labor; the Defense Logistics Agency; GSA; and NASA. We did not independently verify the agencies' data submissions.

To address the problems and benefits of FACNET, FASA's requirements for FACNET, and obstacles to its implementation, we assessed FACNET guidance, implementation plans, and agencies' reports indicating the status of FACNET implementation. We also compared the government's overall FACNET strategy and implementation approach with (1) the EC/EDI implementation strategies and practices of other public and private organizations and (2) the goals, objectives, and milestones established for FACNET by FASA and established for the governmentwide EC program by the October 26, 1993,

presidential memorandum on streamlining procurement through EC. We reviewed FACNET guidance, implementation plans, schedules, transaction data, and status reports prepared by OFPP, the ECA-PMO, the DOD EC Office, and the Defense Information Systems Agency. To further assess progress and obstacles, we interviewed VAN representatives; FACNET vendors; and senior OFPP, DOD, and GSA officials responsible for the governmentwide FACNET program or key components, such as the architecture, the CCR database, and FACNET policy and procedures.

Our audit work was performed between October 1995 and October 1996 in accordance with generally accepted government auditing standards. We performed our work primarily in the Washington, D.C., area at OFPP in the Office of Management and Budget, the DOD EC Office in the Office of the Deputy Under Secretary of Defense (Acquisition Reform), the Defense Information Systems Agency, and the ECA-PMO.

We are sending copies of this report to the Director, Office of Management and Budget; the Administrator for Federal Procurement Policy; the Secretary of Defense and the Deputy Under Secretary of Defense for Acquisition Reform; the Administrator for GSA; the NASA Administrator; and other officials at the agencies included in our review. Copies will also be made available to others upon request.

Please contact me at (202) 512-4587 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix VIII.

Louis J. Rodrigues

Director, Defense Acquisition Issues

Finis J. Hodrigues

List of Congressional Committees

The Honorable Ted Stevens Chairman The Honorable John Glenn Ranking Minority Member Committee on Governmental Affairs United States Senate

The Honorable Strom Thurmond Chairman The Honorable Sam Nunn Ranking Minority Member Committee on Armed Services United States Senate

The Honorable Christopher S. Bond Chairman The Honorable Dale L. Bumpers Ranking Minority Member Committee on Small Business United States Senate

The Honorable William F. Clinger, Jr. Chairman The Honorable Cardiss Collins Ranking Minority Member Committee on Government Reform and Oversight House of Representatives

The Honorable Floyd D. Spence Chairman The Honorable Ronald Dellums Ranking Minority Member Committee on National Security House of Representatives

The Honorable Jan Meyers Chairwoman The Honorable John J. LaFalce Ranking Minority Member Committee on Small Business House of Representatives

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Abbreviations

CCR	Central Contractor Registration
DCI	Data Collection Instrument
DOD	Department of Defense
EC	electronic commerce
EDI	electronic data interchange
ECA-PMO	Electronic Commerce Acquisition Program Management
	Office
FAR	Federal Acquisition Regulation
FASA	Federal Acquisition Streamlining Act of 1994
FACNET	Federal Acquisition Computer Network
GSA	General Services Administration
NASA	National Aeronautics and Space Administration
OFPP	Office of Federal Procurement Policy
VAN	Value-Added Network

Respondents to Our Data Collection Instrument

We sent a data collection instrument to 23 federal organizations. We asked electronic commerce program managers and comparable agency officials at Department of Defense, its 4 major buying components, and 18 federal civilian agencies to give us information and observations on their agencies' efforts to implement the Federal Acquisition Computer Network (FACNET). Eighteen of the 23 federal agencies responded to our questions from late March through May 1996. The 18 agencies were

Defense Logistics Agency, Department of the Air Force, Department of the Army, Department of Commerce, Department of Defense, Department of Education, Department of Energy, Department of Health and Human Services, Department of Housing and Urban Development, Department of the Interior, Department of Justice, Department of Labor, Department of the Navy, Department of Veterans Affairs, Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, and Office of Personnel Management.

Five other agencies were sent data collection instruments but did not respond. According to data provided by the Electronic Commerce Acquisition Program Management Office and several individual federal agencies, these five agencies accounted approximately 0.3 percent of FACNET procurement actions in fiscal year 1995. (See app. II.) The five agencies were

Department of Agriculture, Small Business Administration, Department of State, Department of Transportation, and Department of the Treasury

FACNET Transactions

Table II.1 shows, for calendar year 1995, the number of FACNET transactions in the following categories: public Request for Quotations (RFQ) or similar information, other solicitations or similar information, responses received from vendors, agency purchase orders, and agency delivery orders. Also, the last column shows the total dollar value of FACNET purchase and delivery orders most of the agencies (but not DOD) reported for calendar year 1995. Table II.2 shows similar data for the first quarter of 1996.

Appendix II FACNET Transactions

	Contract s	olicitations		Procuremen		
Agency	Public RFQs	Other than public RFQs	Responses to solicitations	Purchase orders	Delivery orders	Value of orders
Agriculture ^{a,b}	92	10	64	49	0	\$529,017
AID ^{a,c}	0	0	0	0	27	f
Commerced	456	0	2,891	184	0	2,558,250
Defense ^d	66,116	41,057	478,894	105,217	4,698	f
Education	66	0	253	21	1	55,686
Energy ^d	117	149	762	186	13	1,078,968
EPA	42	0	18	0	0	0
FEMA ^{a,c}	0	0	0	0	0	0
GSA ^d	5	0	2	0	0	0
HHSd	148	10	166	32	1,635	118,722,728
HUD	0	0	0	0	0	0
Interiore	1,682	87	6,566	577	20	4,479,054
Justice	83	0	139	17	0	45,501
Labor ^d	0	10	0	0	0	0
NASAd	12	17	0	0	0	0
OPM	27	0	11	0	0	0
SBA ^{a,b}	0	0	0	0	0	0
State ^{a,b}	81	10	180	28	0	163,483
Transportation ^{a,b}	67	0	102	43	0	347,957
Treasury ^{a,b}	299	0	1,462	242	1	3,240,276
VAd	0	0	0	0	0	0
Total	69,293	41,350	491,510	106,596	6,395	\$131,220,920 ^t

^aData not verified by agency.

^fDOD and Agency for International Development did not report the value of their orders. Consequently, the total value of orders reported is underestimated, most likely significantly.

Sources: Electronic Commerce Acquisition Program Management Office and supplemental data from the Departments of Commerce, Defense, Energy, Housing and Urban Development, Health and Human Services, Labor, and Veterans Affairs, Defense Logistic Agency, General Service Administration, and National Aeronautics and Space Administration.

^bAgency did not respond.

^cAgency not sent a data collection instrument.

dCorrected data provided by agency.

eInterior did not have data from the Defense gateway to report for October-December.

Appendix II FACNET Transactions

	Contract s	olicitations		Procuremen		
Agency	Public RFQs	Other than public RFQs	Responses to solicitations	Purchase orders	Delivery orders	Value of orders
Agriculture ^a	17	0	2	0	0	\$0
AIDa	0	0	0	0	0	0
Commerce	58	0	639	21	0	284,000
Defense ^a	22,335	28,987	363,932	17,069	0	c
Education	0	0	0	3	0	23,649
Energy ^b	86	20	776	60	2	631,983
EPA	13	0	16	0	0	0
FEMA ^a	0	0	0	0	0	0
GSA	0	0	0	0	0	0
HHS ^b	73	7	282	12	736	53,396,540
HUD	0	0	0	0	0	0
Interior	645	0	1,883	222	0	1,584,508
Justice	18	0	0	0	0	0
Laborb	0	6	0	0	0	0
NASA ^b	2	0	60	1	0	c
OPM	2	0	0	0	0	0
SBAª	0	0	0	0	0	0
State ^a	31	0	189	10	0	99,554
Transportation ^a	12	0	79	13	1	94,716
Treasury ^b	55	84	101	17	0	234,478
VA	0	0	0	0	0	0
Total	23,347	29,104	367,959	17,428	739	\$56,349,428

^aData not verified by agency.

Sources: Electronic Commerce Acquisition Program Management Office and supplemental data from the Departments of Energy, Health and Human Services, Labor, the Treasury, and NASA.

^bCorrected data provided by agency.

 $^{^{\}circ}$ DOD and NASA did not report the value of their orders. Consequently, the total value of orders reported is underestimated, most likely significantly.

Agency Responses to Our Questions About FACNET

We asked EC program managers and comparable agency officials at DOD, its 4 major buying activities, and 17 federal civilian agencies to give us information and observations on FACNET implementation. Officials from 18 agencies responded. Their responses to our questions about future use of various EC procurement tools, obstacles to FACNET implementation, and benefits of using FACNET are shown in the following three tables.

Question: To what extent do you expect these EC "tools" to be important to your agency through 1999?	To little or	To some extent	To a moderate extent	To a great	To a very	Do not	Total
	no extent	extent	extent	extent	great extent	know	
A. FACNET	0	4	4	4	3	2	17ª
B. Some Alternative Government EC Solution	2	3	3	1	4	4	17ª
C. Internet	1	2	3	4	6	1	17ª
D. Agency-Unique System(s) or Architecture	10	0	2	2	0	3	17ª
E. Your Agency's Electronic Bulletin Board	8	1	2	2	1	3	17ª
F. Electronic Catalogs	1	0	7	4	4	1	17ª
G. Other	0	0	0	0	2	0	2 b

^aOne agency did not reply to this question.

Source: Our analysis.

^bAgency officials not required to respond.

Question: To what extent, if at all, is each			Тоа			
an obstacle to your agency's efforts to implement FACNET?	To little or no extent	To some extent	moderate extent	To a great extent	To a very great extent	Total
A. Lack of funding needed	7	7	0	1	3	18
B. Lack of other resources needed	3	7	3	3	2	18
C. Lack of effective leadership within your agency	14	4	0	0	0	18
D. Lack of effective policy leadership outside your agency	2	2	2	5	7	18
E. Lack of effective government-wide program management	1	2	2	7	6	18
F. Lack of effective FACNET engineering and operational management	1	2	1	2	12	18
G. Lack of a sound FACNET infrastructure that works "end to end"	0	0	3	3	12	18
H. Lack of a CCR database that is well populated and operational	0	0	1	4	12	17
Lack of a clear definition of "single face to industry"	3	1	5	3	6	18
J. Lack of a well-defined federal strategy for use of FACNET	3	4	6	1	4	18
K. Lack of well-defined FACNET strategy in your agency	16	2	0	0	0	18
L. Lack of consistent, helpful, or practical outreach information for vendors	2	5	3	3	4	17
M. Lack of integration of FACNET into your agency's systems	13	3	1	1	0	18
N. Lack of data security	10	4	3	1	0	18
O. Use of EDI has made the FACNET development or simplified acquisition processes more difficult	7	4	2	4	0	17
P. Fragmented standards implementation	3	4	5	3	3	18
Q. Obstacles caused by the statutory requirements for FACNET	7	4	3	2	2	18
R. Other management, operational, legal, or policy problems	0	0	0	1	2	3

^aOne additional response was marked "unknown."

Source: Our analysis.

^bAgency officials not required to respond.

Question: To what extent is each a						
direct/indirect benefit that has been or is being realized in your agency from federal efforts to implement FACNET?	To little or no extent	To some extent	To a moderate extent	To a great extent	To a very great extent	Total
A. Saving money	7	4	3	1	2	17ª
B. Reduced processing time	8	3	4	1	1	17ª
C. Increasing competition/small business opportunities	5	5	2	3	2	17 ^a
D. Better management information	10	3	2	1	0	16 ^{a,}
E. Improved payment process	13	2	0	1	0	16 ^{a,}
F. Increased productivity of agency personnel	8	4	1	1	1	15 ^{a,}
G. Policy lessons learned that will likely benefit the government in the future	4	3	3	5	2	17 ^a
H. Technical lessons learned that will likely benefit the government in the future	2	3	3	5	4	17 ^a
I. Enhanced EC-related knowledge, skills, or abilities of federal personnel that will likely benefit the government in the future	2	2	6	4	3	17ª
J. Fostered better cooperation and/or coordination between the EC and acquisition organizations	5	6	4	0	2	17ª
K. Forced or encouraged federal agencies to better manage EC efforts	3	4	4	2	4	17ª
L. Promoted EDI in the government	1	7	1	4	4	17ª
M. Other	0	0	0	0	2	2 ^d

^aOne agency official did not respond.

Source: Our analysis.

^bOne additional response was marked "unknown."

[°]Two additional responses were marked "unknown."

^dAgency officials not required to respond.

Comments From the National Aeronautics and Space Administration

National Aeronautics and Space Administration

Headquarters

Washington, DC 20546-0001



NOV - 6 1996

HC

Mr. Louis J. Rodrigues Director, Defense Acquisitions Issues General Accounting Office Washington, DC 20548

Dear Mr. Rodrigues:

Thank you for the opportunity to review and comment on your draft report entitled Acquisition Reform: Obstacles to Implementing the Federal Acquisition Computer Network (GAO/NSIAD-97-26).

The President's Memorandum on Electronic Commerce (EC) challenged Federal agencies to move aggressively towards a wide implementation of EC. We agree with your report that a mandated FACNET approach, based solely on Electronic Data Interchange (EDI), does not make the best business sense for federal EC. We believe that there is no single EC solution which best fits the variety of Federal procurement transactions. In fact, our strategy envisions an EC tool set, with solutions based on the Internet, EDI and others, with each designed to optimize transaction performance within the context of the federal procurement statutes, regulations, and policies. For example, the Internet and it's commercially developed software tools are playing a significant role in providing low-cost access to procurement information which is crucial, especially for small businesses.

We are encouraged by your recommendation that we join with other interested agencies in developing a coherent strategy and implementation approach that takes advantage of available EC technologies. If you have questions, please contact Mr. Ken Stepka at (202) 358-0492.

, -

Deidre A. Lee Associate Administrator

for Procurement

Comments From the General Services Administration



NOA 1 3 1068

Mr. Louis J. Rodrigues
Director, Defense Acquisitions Issues
United States General Accounting Office
National Security and
International Affairs Division
Washington, DC 20548

Dear Mr. Rodrigues:

General Services Administration's (GSA) Office of Acquisition Policy and the Electronic Commerce Program Management Office (ECA-PMO) have worked closely with the General Accounting Office (GAO) analysts in the development of the GAO draft report "Acquisition Reform: Obstacles to Implementing the Federal Acquisition Computer Network". Several earlier drafts have been reviewed and GAO has been provided with verbal and written comments.

The following are our comments on the October 18, 1996, draft report:

- 1) We agree in general with the findings presented by the GAO Report. There have been leadership challenges in the implementation of FACNET. There have been technical and procedural problems with the use of EDI for public broadcasting requests for quotation (RFQs).
- We concur with the Report finding that the ECA-PMO has been hindered by a lack of funding and staffing.
- 3) The findings of the Report are correct in targeting leadership improvements. Federal user agencies share responsibility for the difficulties in the FACNET implementation. Civilian agencies, in many cases, have not provided adequate resources, training, and vendor outreach required to successfully implement FACNET or Electronic Commerce (EC) in general.
- 4) GSA and the Office of Management and Budget (OMB) are working together with other agencies to address the leadership and policy direction concerns raised by the GAO and others reviewing the FACNET and EC implementation. A new EC management structure will be put into place over the next several months. This new structure will include participation by the President's Management Council and will also

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Appendix V Comments From the General Services Administration

-2-

have a high-level steering committee that will bring a better focus and problem resolution to the program. This new management structure will be cross functional and will be able to develop a more integrated EC strategy, be able to better review EC programs and provide more long-range planning.

GSA will continue to work with GAO to resolve any issues raised in the Report. If you need additional information, please contact Mr. Tony Trenkle on (202) 501-1667 or tony.trenkle@gsa.gov.

Sincerely,

G. Martin Wagner Associate Administrator

G. Martin Wagner

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Comments From the Office of Federal Procurement Policy



EXECUTIVE OFFICE OF THE PRESIDENT OFFICE OF MANAGEMENT AND BUDGET

WASHINGTON, D.C. 20503

November 26, 1996

Mr. Louis Rodrigues Director, Defense Acquisition Issues General Accounting Office Washington, DC 20548-0001

Dear Mr. Rodrigues:

This is in response to your recommendation to me to help develop a strategy for electronic commerce using various technologies and purchasing methods and to advise Congress on needed legislative changes to address FACNET implementation issues. This recommendation is contained in your draft report "Obstacles to Implementing the Federal Acquisition Computer Network" (GAO/NSIAD-97-26). We found your report very helpful in focusing our governmentwide electronic commerce efforts.

The Federal Acquisition Streamlining Act established FACNET and set forth certain responsibilities for agency heads and the Administrator, OFPP to implement it. We are continuing to pursue the development of FACNET for use where appropriate to streamline acquisition processes.

Electronic commerce for procurement includes not just FACNET, but also purchase cards, electronic catalogs and central contracts providing for electronic orders. Each agency was asked to develop their own implementation plan to integrate electronic commerce into the internal processes of the agency. Since these are evolving technologies, we allowed agencies a high degree of discretion in how they applied electronic commerce to their agency. These all help simplify procurement through electronic commerce.

When we became aware of potential problems with FACNET through our visits to front-line procurement offices, we began to develop a series of recommended policy changes to make the system more responsive to agency needs. These were discussed with the Federal Acquisition Regulatory (FAR) Council beginning last year. Several, but not all, of our recommended changes have been adopted by the FAR Council. Thus, efforts have been taken on the regulatory front to enhance FACNET's viability through the proposed FAR Part 13 restructuring rule, published in the Federal Register on September 13, 1996. It contains many flexibilities in using FACNET which we have suggested, including the ability to describe requirements using "multiple brand names" for purchases under \$25,000 (13.302(a)(8)) and the authority to conduct more expedited evaluation of quotes (13.302(b)(2)).

We continue to be concerned that FACNET policies -- as with all procurement policies -- offer real improvements in serving the user and meeting the important missions entrusted to government in a cost effective way. The current "three-phone-call" method available to buyers for

Appendix VI Comments From the Office of Federal Procurement Policy

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purchases of \$25,000 or less is a quick, efficient technique which is being used for millions of transactions each year. It relies primarily on the buyer's knowledge of the local trade area to match user needs with competitive small business suppliers and issuing purchase orders on the basis of telephone quotations. A recent study by the San Antonio Electronic Commerce Resource Center showed that 82 percent of all FACNET transactions were below the micro-purchase threshold of \$2,500, with another 16 percent below \$25,000, where purchase cards and telephone solicitations provide efficient alternative means. Only 2 percent of awards were in the \$25,000 to \$100,000 range of simplified acquisitions, where FACNET provides unique efficiencies to government buyers. While there were approximately 10 million purchase orders awarded below the simplified acquisition threshold, this same study indicated that only about 110,000 of these purchase orders were awarded through FACNET. This relatively small number of FACNET awards will hold unless FACNET proves to be a better, cheaper, faster purchase technique than the three-phone-call method. The real test of FACNET's effectiveness will be if most buyers want to use it as a cost and time saving technique, and not just as a matter of legislative mandate to permanently establish a simplified acquisition threshold of \$100,000 (vice \$50,000) after 1999.

We agree in general with your recommendation and have already taken steps to develop and implement a management framework to better integrate electronic commerce throughout government. Our recently developed strategy involves the President's Management Council (PMC) in its role as the Administration's group responsible for establishing functionally-integrated, governmentwide policies to promote electronic commerce, which I help support. One example of broader policies affecting electronic commerce for procurement is the Debt Collection Improvement Act of 1996, which requires that all Federal payments be made electronically by 1999. In coordination with making electronic payments to vendors, the Administration intends to make more than 95 percent of its purchases under \$100,000 through electronic commerce by the year 2000.

To help focus on solutions, an Electronic Process Initiatives Committee of the PMC has been established. The EPIC will assist agency heads to manage the transition from paper to electronics, focus resources, increase management efficiency, accelerate implementation, and connect resources to results. The EPIC will be supported by an interagency group with appropriate working groups to address specific issues like the central contractor registry. The EPIC will serve to coordinate the management of initiatives whose implementation and operation will be managed by one, or several, participants on the Committee.

We appreciate the opportunity to comment on your report and will continue to work with you as we implement efficiencies in the electronic commerce area. Mr. Wayne Wittig (202-395-3300) is available to provide additional information on our electronic commerce plans, if required.

Steven Kelman Administrator

Very truly yours.

GAO/NSIAD-97-26 Acquisition Reform

Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON WASHINGTON DC 20301-3000



27 NOV 1996

Mr. Louis J. Rodrigues, Director, Defense Acquisitions Issues National Security and International Affairs Division U.S. General Accounting Office Washington, D.C. 20548

Dear Mr. Rodrigues:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report "Acquisition Reform: Obstacles to Implementing the Federal Acquisition Computer Network", dated October 18, 1996 (GAO Code 705121/OSD Case 1243).

The department realizes that the GAO audit work was performed between October 1995 through August 1996, and that your review, October 23, 1996, indicated that several significant changes were made from the GAO preliminary draft to the official draft. The DoD provides the following additional information as clarification to the "Official GAO Draft".

 Page 1, paragraph 2, GAO indicated, "For this report we obtained information from 18 federal agencies that account for about 90 percent of both the number and dollar value of federal procurement actions of \$100,000 or less reported to the Federal Procurement Data System."

It should be noted that the Department of Defense (DoD), alone, represents 80 percent of both the number and dollar value of federal procurement actions of \$100,000 or less reported to the Federal Procurement Data System, therefore only 17 of the reviewed agencies represent less than 10% of the actions involved with this report.

2. Page 3, paragraph 2, GAO indicated, "Overall, the federal government has executed relatively few procurement actions through FACNET".

This is a correct statement, however, the GAO should take note that DoD has inserted EC/EDI enabling technology into 300 Interim FACNET sites within the department over the past two years. These sites generate 80% of the DoD procurement actions of \$100,000 or less. Successful implementation at these sites has been the focus of DoD's efforts since September 1994. The DoD plan signed December 20, 1993, which directed the immediate implementation of these sites, was consistent with the subsequent Federal Acquisition Streamlining Act (FASA) - October 1994. FASA directed that 75% of the procurement actions of \$100,000 or less to be processed via FACNET by 1999. The department is currently now capable of producing these documents via FACNET, and will be pursuing an implementation plan with the DoD agencies and services, to increase the volume of transactions via FACNET between FY-97 and FY-99.



See comment 1.

Now on page 2. See comment 1.

See comment 2.

Now on page 3. See comment 1.

Now on page 4. See comment 1.

3. Page 3, paragraph 3, "Presently, difficulties doing business through FACNET overshadow the benefits of using it. Both the current FACNET infrastructure and the centralized contractor registration database have significant operational problems".

Presently, neither FACNET nor the Centralized Contractor Registration (CCR) is experiencing operational problems. This is primarily attributed to the fact that the DoD has expended \$10 million dollars over the past twelve months to maintain, sustain, and resolve many of the engineering issues sited in this report during the period of October 1995 through August 1996.

The FACNET infrastructure, as of November 1, 1996, was enhanced by the implementation of the Electronic Commerce Processing Nodes (ECPNs) which eliminated the services/agency gateways. The ECPN increased our previous 100,000 transactions a day capability to 1.2 million transactions a day, with 100% throughput and 99.9% accuracy. Additional areas currently being pursued by the Defense Information Systems Agency (DISA) in support of FACNET are Configuration Control Processes; Requirements Processes; and Continuity of Operation Procedures (COOP).

As of October 1, 1996, the CCR was enhanced with a World Wide Web (WWW) and dial up modem capability which allowed vendors to register free in CCR. This process within DoD alone, will obviate the need for future manual registration with each of over 1,400 sites for the purpose of conducting business with DoD. It should be noted, that to date, no "other" civilian agency, including the 17 referenced in this report, have provided DoD with their Automated Information System (AIS) connectivity, nor funding, for their current or future use of CCR. DoD is in the process of developing a strategic plan for the population of the CCR with the current Defense Logistic Service Center (DLSC) Contractor And Government Entity Code (CAGE) files, beginning 2nd Qtr FY97. It is estimated that there are over 300,000 "active" contractor files in this repository. These files will require updated and additional information from the respective contractor, to satisfy the current CCR data elements.

4. Page 4, paragraph 2, "Organizations with the most success in using EDI technology for purchasing, however, typically use it to transmit high-volume, routine, and repetitive transactions, such as delivery orders under existing contracts and invoices, with a small group of long-term suppliers".

This statement is true, however, there has never been a limitation of FACNET for these transactions. The organization's currently processing these actions are primarily utilizing proprietary solutions or non compliant standards, therefore these examples do not present a "single face to industry" at this time. The individual maintenance and sustainment of these type actions, outside the DoD's Information infrastructure (the DII), are currently being reviewed to compare their costs in relationship to costs associated with the DII, a FACNET compliant system.

 Page 5, Paragraph 2, "However, FASA's prescribed process for determining what constitutes eligible contracts precludes such a determination until October 12, 1997, at the earliest."

In that the footnote references that this information is not collected governmentwide, it should be noted that it "is" collected for the DoD at all dollar thresholds, including \$2,501 to \$100,000, and these statistics are currently available for DoD's use.

6. Page 8, Paragraph 1, line 2, "These problems have still not been resolved."

Reference DoD's response to Number 3, "DoD response to FACNET/ECPN current capability".

7. Page 11, Paragraph 3, last sentence, "The CCR database, however has been experiencing significant problems, is far behind schedule, and is still not performing its intended role.

The CCR database, has been "operational" since August 1996, for the registration of EC/EDI compliant vendors utilizing a DoD certified Value Added Network (VAN). Registration of trading partners was the responsibility of the VAN prior to October 1, 1996. It should be noted, until the DoD WWW capability, many of these VAN's charged their clients anywhere from \$40 to \$400 for registration. Subsequent to the establishment of "free" WWW capability in October 1996, most EC/EDI capable vendors are registered. The WWW and the dial up modem capability was implemented, October 1, 1996, to eliminate the VAN's past charges, as well as to allow vendors who are not currently EC/EDI capable to register in the CCR system. As stated in DoD's response to number one, the DoD is currently developing a strategic plan to increase the population of CCR, beginning 2nd Qtr FY97. To our knowledge there is no official documentation which established a time line for the completion of the population of CCR.

- 8. Page 14, paragraph 2. The report implied that the original concept of FACNET was that "one size fits all." The DoD never made the assumption that the FACNET technology was ever to remain static, nor that it was the only or best way to do business electronically. Our approach from the outset has been that DoD would utilize any and all technologies that were appropriate for a given business transaction. In doing competitive procurements we believe the requirements to be FACNET compliant particularly the "single face to industry" is critical. For other business transactions, meeting the requirements of FACNET may not be necessary. On the other hand, we must then make a "business case" whether we can use the same infrastructure for all transactions. The DoD definition of Electronic Commerce (EC) incorporates the use of all types of EC, e.g., IMPAC, Bar Coding, etc.
- 9. Page 14, paragraph 3, "They pointed out that "-some buyers accept fax queries for more information and send faxes to clarify FACNET solicitations, while other procuring activities no longer permit use of faxes and will ignore any incoming fax messages;"

The DoD procurement contracting officers no longer permitting the use of faxes pertaining to FACNET solicitations are in accordance with DoD policy. Furthermore, FAR Part 13, published in the Federal Register on September 13, 1996, stated, that federal agencies need not respond to inquiries (1) by telephone or FAX, unless they are unable to receive inquiries through FACNET or (2) through any medium (including

Now on page 6. See comment 2.

Now on page 9. See comment 2.

Now on page 11. See comment 1.

Now on page 11. See comment 3.

FACNET) if doing so would interfere with their ability to conduct the procurement in an efficient manner.

"-there seems to be no consistent policy covering procurements exempted from use of FACNET; and"

The DoD issued policy to all DoD Interim FACNET sites, that all simplified procurements would be issued via FACNET, unless exempted. Exemptions were to be submitted to the Deputy Under Secretary Defense (Acquisition Reform/Electronic Commerce) [DUSD (AR/EC)]. DUSD(AR/EC has received no exemptions from the Head of the Contracting Activities (HCAs). However, the current statistical data maintained at each Interim FACNET site, indicates that the HCA has not complied with this policy. DUSD(AR/EC) will request the HCAs provide their exemptions in accordance with the previous policy issued to DUSD(AR/EC), not later than the 2nd Qtr FY97.

"- the number of days a solicitation remains open is highly variable."

The DoD defers the number of days a solicitation remains open to the discretion of the contracting officer, regardless of whether the document is processed via FACNET.

- 10. Page 16, paragraph 1. "The Administrator for Federal Procurement Policy agreed that VAN costs create major problems for small businesses." There is definitely a cost associated with VANs to process FACNET transactions, however, it should be noted that the cost of doing business in a manual mode often meant the small business had to employ an agent to review bid boards at potentially 1,400 separate DoD sites, due to the fact that bids under \$25,000 were posted only on physical bulletin boards at installations. Often, in the manual process the vendor was not afforded adequate time to obtain the solicitation from the contracting office to prepare a quote, therefore potentially losing business opportunities. Additionally, vendors did not have ready access to previous award information pertaining to items of interest, thereby increasing their overhead costs through the submission of quotes that were not in a competitive range.
- 11. Page 26, "RECOMMENDATIONS" "We recommend that the Administrator for Federal Procurement Policy, in consultation with the Secretary of Defense, the Administrator for General Services, the NASA Administrator, and the heads of other major federal procuring agencies.
- develop a coherent and integrated federal strategy and implementation approach for effectively and efficiently carrying out the agency buying offices' requirements for the acquisition function, using various EC technologies and purchasing methods, where appropriate. In developing such a strategy and approach, give due consideration to the need to (1) achieve the single face to industry goal and (2) provide small businesses a fair opportunity to participate in federal procurement.
- Advise the congressional committees responsible for oversight of FASA on the actions proposed to address FACNET implementation problems and , in so doing, make whatever legislative proposals are deemed necessary."

See comment 1.

Now on page 12. See comment 1.

Now on page 20. See comment 1.

The Secretary of Defense signed the DoD Electronic Commerce in Contracting Plan, December 20, 1993. This plan provided for the 244 DoD sites that accomplish 80% of all DoD simplified procurements. As of October 1996, the DoD has completed certification of 300 Interim FACNET sites. An additional 31 DoD sites will be Interim FACNET certified by 3rd Qtr FY97. The DoD will continue to execute our implementation plan, and pursue the increase in the volume of transactions through this infrastructure over the next three fiscal years.

Additionally, DoD has not limited their EC implementation to procurement, but has completed the DoD Electronic Commerce (EC) Strategic Plan, which encompasses all functional areas within the department, e.g. procurement, finance, logistics, transportation, personnel, medical, etc. The functional areas will utilize the DII, a FACNET compliant system within the department, to the maximum extent practicable, for each business area to provide a "single face to industry", and allow the maximum exchange of data between functional areas. This strategic plan includes all forms of EC, to include EDI via ANSI X12 and/or UNEDIFACT, H7L, fax, bar coding, etc.

Furthermore, the department is in the process of finalizing the DoD EC Directive, which establishes roles and responsibilities throughout the department pertaining to the implementation of EC in all functional areas.

In conclusion, DoD stands ready to work with the Administrator for Federal Procurement Policy, the Administrator for General Services, the NASA Administrator, and the heads of other major federal procuring agencies to assist them in their development of independent strategies, and the overall federal EC strategy for federal procurement.

Colleen A. Preston

Deputy Under Secretary of Defense

Collen Q. Preston

(Acquisition Reform)

The following are GAO's comments on the Department of Defense's letter dated November 27, 1996.

GAO Comments

- 1. We made changes to the report to reflect DOD's comments.
- 2. Through the completion of our audit work in September 1996, agencies and vendors continued to identify operational problems with the infrastructure and the CCR database. Although DOD stated that it was not experiencing any operational problems as of late November because of recent enhancements, we believe insufficient time has elapsed to verify whether the operational problems have been eliminated.
- 3. According to the Director for DOD EC, as of December 5, 1996, DOD has not issued policy guidance on the use of faxes pertaining to FACNET solicitations.

Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C. Kevin M. Tansey Patricia D. Slocum Thomas W. Hopp

Accounting and Information Management Division Carl M. Urie Gwendolyn A. Dittmer

Office of General Counsel John A. Carter

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