

**RESTRICTED** — Not to be released outside the General Accounting Office except on the basis of specific approval by the Office of Congressional Relations.



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

*21070*  
*126895*

April 10, 1985

INFORMATION MANAGEMENT  
& TECHNOLOGY DIVISION

B-217877



126895

The Honorable Jack Brooks  
Chairman, Committee on Government Operations  
House of Representatives

Dear Mr. Chairman:

Subject: Review of Two Proposed Automatic Data Processing Procurements by the Social Security Administration (IMTEC-85-7)

In discussions with your office on December 14, 19, and 21, 1984, we were asked to quickly evaluate two proposed Social Security Administration (SSA) procurements for automatic data processing equipment. Specifically, we were asked to determine if SSA's actions had excessively restricted competition to the degree that would make it desirable to have the General Services Administration (GSA) withdraw SSA's procurement authority and conduct the procurements itself. For the first procurement, SSA issued a Request-for-Proposals (RFP) on November 28, 1984, for 44 communications processors.<sup>1</sup> For the second procurement, SSA requested an industry review of draft specifications on November 29, 1984, for its Terminal Acquisition Project. This project is intended to provide SSA with approximately 20,000 terminals plus related equipment such as printers and controllers.

We briefed your office on the results of our limited review on January 11, 1985. During this meeting, we were requested to provide a written report on the results of our evaluation. This letter responds to that request.

On March 5, 1985, SSA cancelled the RFP for communications processors because it is considering alternative ways to satisfy this requirement. SSA is not currently soliciting proposals for either procurement. We did not find evidence at the time of the briefing or now that SSA's actions in determining the scope of competition for the two procurements warranted the removal of SSA's delegation of procurement authority. We plan to review the RFP for communications processors when it is re-issued. We also plan to review the RFP for terminal equipment when it is issued.

---

<sup>1</sup>Communications processors are small computers used to handle communications network control, message switching, and transmissions to and receptions from the larger central computer(s) doing the processing.

531831

(510092)

OBJECTIVES, SCOPE, AND METHODOLOGY

We conducted our review to determine whether the withdrawal of the existing delegation of procurement authority would be desirable. We applied the general criterion that recommending withdrawal would require determining that an agency had acted unreasonably in carrying out the procurement by, among other things, unnecessarily restricting competition. Also, we would have had to find that any difficulties that had arisen or might arise would not likely be addressed adequately by the management and administrative processes in place under the current delegation of procurement authority.

In making our evaluation, we (1) evaluated the reasonableness of SSA's requirement for compatibility with a specific communications network architecture, which is a general requirement for both procurements; (2) examined vendor comments on the RFP and the draft specification; (3) contacted the GSA official responsible for examining the procurements; (4) contacted SSA officials responsible for the two procurements; (5) evaluated SSA reactions to questions and comments about the communications processors procurement which led SSA to amend its RFP; and (6) spoke with marketing representatives of several responding vendors to gain a greater understanding of the factors which would significantly affect competition.

Because the vendors reviewed and commented on the RFP and draft specification documents, they had an opportunity to ask that terms and conditions which they deemed restrictive be removed. We viewed the number and substance of such comments received by the agency as a good method for supplementing our own analysis to determine whether competition was restricted and to identify needlessly restrictive aspects of a specification.

In conducting our evaluation, we did not consider alternatives to SSA's System Modernization Program--an extensive 5-year project to modernize SSA's computer hardware, software, and telecommunications. We did not evaluate the specific merits of a bid protest for the communications processors procurement because the GSA Board of Contract Appeals performs this function.

We performed our review in accordance with generally accepted government auditing standards, except that we did not obtain official comments from SSA on this report.

REQUIREMENT FOR SYSTEM NETWORK ARCHITECTURE  
COMPATIBILITY DOES NOT APPEAR TO BE UNREASONABLE

Both of the proposed SSA procurements are for equipment which is to be used in SSA's Data Communications Utility.<sup>2</sup> As part of

---

<sup>2</sup>The Data Communications Utility is planned to become SSA's single telecommunications network, replacing several older networks, and is intended to serve all of SSA's telecommunications users with increased reliability, flexibility, and maintainability.

its Systems Modernization Plan, SSA has determined that all components of its Data Communications Utility need to be compatible with the IBM-designed System Network Architecture (SNA). We have found no evidence to suggest that SSA's requirement for compatibility unreasonably restricts competition.

SNA--a set of rules or conventions devised by IBM--defines the hardware functions and software protocols adhered to in the IBM network communications product line. This set of conventions, which comprehensively covers the range of network communications, permits IBM and its customers to design and implement a wide variety of specific network configurations with confidence that individual network components will function together to form a reliable network. In addition, components adhering to the same conventions but manufactured by other vendors can replace IBM components in a network, either in whole or in part, without compromising the functional integrity of the network.

While the SNA was originally devised by IBM in 1974, the following events indicate that SNA may become predominant in the marketplace:

- Hundreds of user organizations have SNA networks.
- Makers of non-IBM-compatible computer hardware, such as Wang and Sperry Computer Systems, have announced plans to manufacture SNA network equipment.
- Many vendors offer SNA-compatible components.
- Other major computer manufacturers have not been as successful as IBM in attracting other vendors to offer components compatible with their non-SNA network designs.

Under these circumstances, requiring SNA-compatible products does not impose an unreasonable burden on competition. It is reasonable for a government organization to ensure compatibility among its network components over a period of evolutionary growth. Acquiring equipment and software that are not SNA-compatible would impose potentially greater restrictions on future competition. Although an SNA-compatibility requirement does limit competition, its limitations are not severe, due to the growing number of independent vendors that offer SNA components. In addition, SNA specifically provides interfaces to allow non-SNA networks and equipment to communicate and/or connect to an SNA network. This feature is significant because it means that SSA can later connect non-SNA equipment if it so desires.

THE COMMUNICATIONS PROCESSORS RFP WAS  
MODIFIED TO RESPOND TO VENDOR COMMENTS

SSA released the RFP for 44 communications processors (SSA-RFP-85-0050) on November 28, 1984. Besides SNA compatibility, the RFP requires that each communications processor be able to be

connected to from one to four IBM "plug-compatible" (functions similar to IBM equipment) host computers currently in SSA's inventory. Although this requirement restricts competition to just a few vendors, it is reasonable to require communications processors to be compatible with the host computers that they support. It should be noted that the RFP does not require vendors to bid communications processors that are electrically equivalent to ("plug-compatible with") IBM communications processors because functionally equivalent communications processors that work with SNA are acceptable. We found no evidence that SSA had acted unreasonably in restricting competition for this procurement.

The RFP, as originally issued, would have required the winning contractor to supply its functionally equivalent software for subsequent versions of IBM's Network Control Program,<sup>3</sup> part of the SNA, within 6 months of a new IBM release. It also would have required the contractor to make available all required hardware, software, and upgrades or replacements to the communications processors to implement the new Network Control Program within the same 6-month period. The costs for implementing optional software and, as required, any hardware upgrades or replacements needed for implementing the new release, were to be negotiated at the time required by the government. This provision would allow a contractor using non-IBM plug-compatible equipment to recoup some research and development costs incurred in staying current with IBM's SNA. These costs generally are borne solely by the manufacturer of compatible (but not plug-compatible) equipment because compatibility is a significant factor in the commercial value of this equipment.

Only 3 out of 73 potential bidders who were provided the RFP submitted comments. During December 1984, those three potential bidders submitted to SSA a total of 38 comments, questions, and requests for RFP modifications. On January 3, 1985, SSA addressed these submissions in its second amendment<sup>4</sup> to the RFP.

To better analyze SSA's response to the vendor remarks, we classified them into two categories--requests for clarification and requests for modification of the RFP. There were 29 requests for clarification which SSA answered. The following shows SSA's disposition of the nine requests for RFP amendments:

---

<sup>3</sup>The SNA Network Control Program is a computer program which runs in the communications processor to control the operation of the communications network. The use of a separate, specialized network control program removes the need for applications programmers to incorporate in their applications programs coding specific to a particular network.

<sup>4</sup>Earlier, on Dec. 17, 1984, SSA had issued the first amendment extending the RFP's closing date from Jan. 3 to Jan. 24, 1985.

- One request for a time extension to January 30. (SSA extended the closing date to Jan. 24.)
- One request for a missing section. (SSA provided this section in the amendment.)
- One suggestion for an operational capability demonstration. (Suggestion declined by SSA.)
- One request to modify the formula used to calculate liquidated damages (penalties for late delivery). (Request denied by SSA.)
- Five requests for modifications related to competition.

The five requests for modifications relating to competition and their resolution follow:

- One request that IBM software be provided as government-furnished equipment. (Clarified by SSA to consider providing a non-IBM vendor the power of attorney necessary to purchase IBM software for SSA.)
- Two related requests to drop an outdated requirement (2260 protocol). (Requirement deleted by SSA.)
- One request to eliminate the requirement to be current within 6 months with the latest IBM release of its SNA. (Requirement to maintain currency deleted by SSA.)
- One request to extend until January 1, 1986, the requirement to be functionally equivalent with version three of IBM's Network Control Program. (Request denied by SSA.)

On the closing date, January 24, 1985, NCR Comten, Inc., filed a bid protest with the General Services Administration Board of Contract Appeals under the Competition in Contracting Act of 1984. Two vendors had already submitted timely proposals responding to the RFP. On February 7, 1985, the GSA Board of Contract Appeals temporarily suspended the procurement before deciding the merits of the protest using adjudicative procedures specified in the Competition in Contracting Act. We did not evaluate the merits of the bid protest because the GSA Board of Contract Appeals is responsible for performing these evaluations.

On March 5, 1985, SSA cancelled the RFP. Contract officials told us that SSA took this action because it found that more than one Network Control Program could be operated in a single communications processor, which was one of the technical issues raised in the bid protest. This capability may allow SSA's functional requirement for communications processors to be met with fewer processors than the number specified in the present RFP and might be

cheaper for the government. We were informed that SSA is considering including a benchmarking<sup>5</sup> requirement in the re-issued RFP to better evaluate proposals which used different approaches (e.g., one Network Control Program per processor versus more than one). If SSA takes such action, the RFP could be re-issued in about 9 months. We plan to review the RFP when it is re-issued. SSA's plans for the terminal procurement are not affected by the RFP cancellation.

SSA STILL HAS AN OPPORTUNITY TO  
RESPOND TO VENDOR COMMENTS

On November 29, 1984, SSA released to industry a draft specification for its Terminal Acquisition Project. SSA anticipates buying approximately 20,000 terminals plus related peripheral equipment and installing them at more than 1,800 sites nationwide. SSA's stated purpose for distributing the draft technical specification was for recipients to identify areas of the specification which would require equipment or software not currently available in the marketplace. In addition, SSA wanted the recipients to identify any requirement which restricted competition. Although we found no evidence that SSA had unreasonably restricted competition, recipients of the specification identified two ways in which SSA could promote greater competition.

In the draft specification, SSA identified seven fundamental objectives for the procurement. The seven objectives are to procure

- (1) off-the-shelf equipment;
- (2) field-proven equipment and software;
- (3) device-level<sup>6</sup> compatible terminal equipment (control units, keyboard/display units, and printers) to promote competition for add-on terminal devices;
- (4) equipment compatible with SSA's Data Communications Utility based on IBM's SNA;
- (5) equipment compatible with existing applications software teleprocessing monitors;

---

<sup>5</sup>A benchmark is a set of computer programs and data tailored to represent a particular workload and used to evaluate system performance or cost.

<sup>6</sup>Device-level compatibility exists when another vendor's equipment can be substituted and provide comparable performance using the identical software. Theoretically, it should be possible to assemble a working subsystem using controllers, keyboard/display units, and printers where each is supplied by a different vendor offering device-level compatibility.

- (6) equipment provided and maintained by a single contractor to standardize and simplify the implementation process through identical equipment at all sites; and
- (7) equipment that can be installed and relocated by SSA personnel or contractors who are not customer engineers.

Eighteen vendors out of approximately 120 receiving the draft specification responded to SSA's request. We categorized the responses into three subgroups:

- No further interest in the procurement (three vendors).
- Interested but requesting SSA to open procurement beyond a single procurement for device-level compatible components (seven vendors).
- Interested in a single procurement for device-level compatible components (eight vendors).

One of the 18 vendors also identified a possible conflict between objectives 3 and 6. Competition on future procurements (No. 3) appears to conflict with the use of a single contractor (No. 6) as mutually attainable objectives if a second contractor wins a subsequent competitive award.

In their comments, the responding vendors identified two different alternative procurement strategies which promote greater competition than does the draft specification. In one alternative, SSA could maintain its requirement for device-level compatibility but restructure the acquisition to procure keyboard/display units, printers, and controllers separately. Another alternative would be to retain only the requirement for controllers to be compatible with the communications processors (SNA) but allow vendors to bid any workable set of terminal equipment to meet the functional requirements.

Although offering greater competition, neither strategy satisfies as many of the agency objectives outlined in the draft specification as the procurement strategy released for industry comment. Separate device-level procurements would be less likely to result in the selection of a single contractor (No. 6). Use of a functional requirement for terminal equipment would be less likely to result in competitive follow-on procurements for additional terminal equipment (No. 3).

Even if the procurement strategy remains unchanged, there appear to be at least three original equipment manufacturers able to propose equipment for a single device-level compatible procurement. It is also likely that several third-party vendors could bid a mix of device-level compatible devices from different vendors and their own internally developed and marketed products. Because SSA's normal procedures provide adequate opportunity for the

B-217877

correction of any latent problems, there is no evidence that SSA acted unreasonably in restricting competition. We plan to review the RFP for this procurement when it is issued.

- - - - -

We did not obtain official agency comments on this report. As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies to interested parties and make copies available to others upon request.

Sincerely yours,



Warren G. Reed  
Director