United States General Accounting Office

GAO

Report to the Director, Federal Bureau of Investigation

August 1991

ADP PROCUREMENT

FBI Addresses Risk to Its National Crime Information Center Acquisition

GAO/IMTEC-91-60

GAO

United States
General Accounting Office
Washington, D.C. 20548

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Information Management and
Technology Division

B-244669

August 2, 1991

The Honorable William S. Sessions
Director, Federal Bureau
of Investigation

Dear Mr. Sessions:

This report describes the results of a risk assessment we performed on your National Crime Information Center project (NCIC 2000). Our objectives were to (1) identify potential risks to the project's cost, schedule, and ability to meet user requirements, and (2) test a standard risk assessment methodology we recently developed. This methodology incorporates critical factors identified in GAO's model of the information technology acquisition process, and is designed to provide agency management with early warning of potential risks so that timely action can be taken to address them.[1]

Key factors that we considered in selecting NCIC 2000 were its (1) cost, estimated at more than $100 million over its life cycle; (2) importance to the Federal Bureau of Investigation (FBI) and other law enforcement agencies; and (3) early stage in the procurement cycle, where it is easier to make corrective changes. Our review was limited to agency actions to develop a request for proposals (RFP), prepare for contract award, and plan to oversee contractor performance. Details on our objectives, scope, and methodology are discussed in appendix I.

Results in Brief

Our review of the draft RFP and FBI procurement plans showed that the NCIC 2000 project conforms with many of the critical factors for successful information technology acquisitions detailed in GAO's model of the acquisition process. In particular, we found that:

- project management expressed confidence in the support provided by senior agency officials;
- system users from across the country were involved in the project, and many assisted in defining the new system's requirements; and
- the FBI received extensive outside technical assistance to support its in-house expertise.

[1] Information Technology: A Model to Help Decrease Acquisition Risks (GAO/IMTEC 8.1.6, August 1990).

We also identified several areas where prompt agency action could reduce risk. For example, at the outset of our review we noted that the FBI committed itself to conducting a full and open competition without determining whether that competition would be restricted. Agency officials explained that they had not determined whether they would proceed with an unrestricted competition or require vendors to offer systems compatible with those already in use at the FBI. In addition, the FBI's schedules for contract award and system implementation appeared unrealistic, not allowing for potential delays. When we brought these and other concerns to FBI officials' attention, they moved quickly to take corrective action.

The FBI's corrective actions have mitigated risks to the project's success but by themselves will not guarantee an efficient and effective system. The FBI will need to continue managing the project throughout the acquisition process to ensure that it is implemented successfully.

Background

The existing NCIC system provides information on wanted or missing persons and stolen property to law enforcement officials in all states and to other federal agencies. This system is over 20 years old and has become difficult to maintain or expand, according to Bureau officials. The FBI plans to award a multimillion dollar contract to develop a new system that will not only replicate the current system's functions, but also take advantage of new technologies allowing new functions.

At the time of our review the FBI had defined requirements, briefed vendors, requested a Delegation of Procurement Authority, and drafted an RFP for the new system. The RFP was being finalized for release to potential vendors.

Critical Acquisition Issues

GAO's acquisition model identifies critical factors that contribute to effective management and control of acquisition risks. We used those factors to help focus on significant issues related to issuing an RFP and preparing for and conducting a source selection. Our comments and the FBI's actions to address them are detailed below.

User Support and Involvement

Users access the NCIC system through over 64,000 terminals nationwide, primarily at state and local law enforcement organizations, but also at other federal agencies. Users are represented by regional working groups from four areas of the country. Regional groups include members

from each state, the District of Columbia, Canada, Puerto Rico, the U.S. Virgin Islands, and federal agencies. Twenty representatives from those regional groups are elected to a national Advisory Policy Board. This Board, which includes 10 additional representatives from the criminal justice community, makes recommendations to the FBI concerning NCIC. The national and regional structures provide a communication channel between users and the FBI.

We surveyed user representatives in each of the 50 states, the District of Columbia, and 11 federal agencies to determine the extent of their involvement in developing NCIC 2000. User involvement is valuable throughout the process of selecting a contractor and implementing a new system. We asked users about their agreement or disagreement with the system's requirements. We also asked them about their plans for upgrading their own computer systems to interact with the new NCIC system after it is implemented.

Our survey, which had a 100-percent response rate, showed strong user support for NCIC 2000, its goals, and its management. Users reported that they were involved in developing the system requirements and that no essential features were left out of the planned system. They also stated that FBI officials keep them informed of project status through the national policy board and regional working groups, or through correspondence from the FBI. Users expressed concerns about only a few issues. For example, 24 percent of state officials expressed some concern over the ability of their own states to finance the improvements needed to efficiently use the new system. To respond to this concern, FBI officials have been meeting with state legislatures and budget officials and providing information to encourage the states to invest in their NCIC-related systems.

Project officials told us they are continuing to keep users closely involved. For example, Advisory Board officers represented users at the Contract Review Board briefing. Also, project officials plan to include users on evaluation and oversight teams. In addition, the FBI told us that regional and national meetings will continue to be held.

Request for Proposals

Federal acquisition regulations emphasize the importance of full and open competition in information technology procurements. The regulations allow for restricting competition when it is necessary to meet agency needs and is fully justified. In accordance with federal policy, the request for procurement authority from the General Services

Administration for NCIC 2000 stated that the acquisition would be based on full and open competition.

However, in our early discussions with NCIC officials they stated a preference for a compatibility limited acquisition. They indicated that adopting a new system architecture would impose additional training and testing on the agency. Also, FBI officials told vendors who attended a December 1990 briefing that the NCIC 2000 workstations would have to use specific platforms and operating systems compatible with workstations already purchased by state agencies. The original draft of the RFP included these workstation specifications. One senior agency official told us he planned to conduct a cost study to determine if compatibility limitations could be supported, but no such study had been completed at the time of our audit. We advised project officials that to avoid unjustified restrictions the issue of compatibility limitations needed to be resolved. An FBI contracting official later informed us that project officials had decided not to impose any compatibility restrictions after determining that associated costs would not be sufficient to justify limiting competition. In addition, the project manager informed us that he and his staff have examined the draft RFP and eliminated unnecessarily restrictive language.

When we reviewed the original draft RFP, we found it incomplete in several areas. For example, agency officials had not:

- defined what requirements vendors would have to meet to demonstrate the effectiveness of their proposed systems,
- determined the relative importance of evaluation factors in the RFP, or
- decided whether software development costs would be paid on a fixed fee or incentive fee basis, or whether user organizations would have the option of buying NCIC workstations through the FBI contract.

Since our review, the FBI has acted to address each of these issues. The RFP has been revised to include vendor performance and capability validation requirements and to rank the evaluation factors. Also, the FBI has selected a cost plus fixed fee structure for software development and has structured the contract to allow users to buy NCIC workstations.

Source Selection

GAO's acquisition model and other federal guidance, including the Federal Acquisition Regulation, call for developing source selection procedures at the same time an RFP is prepared. This approach helps ensure consistency between system requirements and the procedures the

agency will use to evaluate proposals. However, the FBI planned to develop the source selection plan after the RFP was released. Such an approach can cause problems. For example, in preparing the plan the evaluation team may discover that it should have stated its requirements differently in the RFP. As a result, it may be necessary to revise the RFP to clarify its requirements. If the RFP is issued before the source selection plan is completed, such clarifications cannot be made as easily. After we brought this to their attention, FBI officials prepared a draft source selection plan with support from MITRE Corporation technical staff,[2] and plan to revise it concurrently with the final RFP.

We also met with project officials to determine how they planned to assess vendors' proposed systems and ensure that the selected system would meet the agency's requirements and avoid cost and schedule overruns. We were concerned that to meet the FBI's stringent requirements for system reliability and availability, vendors would propose systems that were unnecessarily complex and time-consuming to develop. Project officials assured us that the technical evaluation team will assess all proposals against the FBI's stated mandatory requirements and evaluate the proposals for unnecessarily complex solutions.

Schedules

GAO's acquisition model states that a realistic schedule for the source selection process is critical. Also crucial is the establishment of realistic schedules for developing and installing a new system, particularly when system development proceeds on a cost-reimbursement basis. As we pointed out to FBI officials, the agency's credibility with its client agencies could be negatively affected by schedule slippages. Our review of the project schedule showed that it did not take into account potential delays common in the solicitation process including (1) extending submission deadlines to further promote competition, (2) amending the RFP for other reasons, or (3) resolving bid protests. In addition, the project's original plans called for a contractor to design, program, test, and implement a baseline system that would incorporate all the features of the current system, plus some new functions such as image processing, within 1 year of contract award. We relied on MITRE's estimate of the new system's size when we used commercially available software to estimate how long it would take to develop the new system. Our analysis showed that NCIC 2000 could take longer to develop than the FBI had planned.

[2]MITRE is an independent, not-for-profit, system engineering firm that provides scientific and technical services to the federal government.

After we discussed the schedule issue with them, project officials reexamined their plans and changed their source selection and system development schedules to reflect more realistic time frames. For example, after conferring with MITRE, they changed their schedule for implementing the baseline system from 1 to 2 years.

Outside Assistance

The FBI contracted with MITRE for technical assistance to supplement FBI resources throughout the acquisition process. In our judgment, this outside support was valuable to the FBI in ensuring that a diverse, experienced team was in place to initiate the project. MITRE staff interviewed law enforcement officials nationwide, wrote the requirements analysis and specifications, and drafted much of the RFP. At the time of our review, however, the roles of MITRE and FBI staff after contract award had not been established. Although the FBI's request for a Delegation of Procurement Authority stated its intention to retain MITRE for technical assistance, senior project staff told us they had not yet determined whether such assistance would be needed or how it would be used. Subsequently, the Project Manager informed us that the Bureau has decided to use MITRE to provide additional expertise necessary to oversee the new system's development. For example, MITRE staff will assist the agency in reviewing the contractor's progress reports.

Management Issues

Project officials expressed confidence in the strong, consistent support they received from senior FBI officials. We noted, however, that while selected senior managers were individually briefed, there were few instances where officials formally approved key contract decisions. GAO's acquisition model notes that top management's continuing involvement in project reviews and key decisions is critical to managing the risks associated with complex procurements.

In accordance with Department of Justice policy, Justice officials did not conduct a formal review of the NCIC 2000 project. Because of the sensitivity of its systems, the FBI is charged with ensuring that its procurements conform with federal laws and regulations. Senior managers in the FBI oversee procurements through the Contract Review Board. The Board's involvement is essential since, acting on behalf of the Justice Department, it provides the only high-level formal review of key contract issues. The Board's approval is required before an RFP can be released.

The Contract Review Board had not scheduled a review of the procurement when we completed our audit work in early May 1991. Because of this, we questioned whether senior managers were sufficiently involved in key decisions. Subsequent to our audit, the Board reviewed and approved the project. During this review, FBI officials presented revised plans that addressed the procurement issues we had identified.

GAO's model also stresses the importance of using capable project management and experienced, qualified project staff. We looked at the structure and composition of the current project team to ensure that it provided continuity and direction. We noted that the team was still being formed at the time of our review. A new project manager had been appointed, and 4 members of the 10-member team had been assigned. The Project Manager assured us that a complete project team of skilled, experienced staff would be (1) assembled before the contract is awarded, and (2) maintained throughout the project. The Bureau is interviewing applicants and conducting background checks for remaining positions on the project staff.

Conclusion

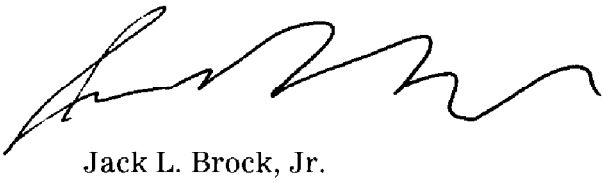
The success of information system acquisitions can be measured by how well they assist agencies in carrying out their missions. Acquisitions that are well-planned increase an agency's credibility with the Congress and the public. To be successful, the FBI, like any other agency, must act responsibly to manage and control the inherent risks that accompany such acquisitions.

We found that the FBI had done an excellent job mitigating certain risks of cost and schedule overruns and inadequate systems performance. Particularly noteworthy was the FBI's obtaining extensive technical support to supplement its in-house expertise, and involving potential system users to ensure that their needs will be met. Throughout the audit, FBI officials moved quickly to address the areas of risk that we brought to their attention.

By taking such action, the FBI has mitigated risks to the project's success and thus is off to a good start. However, this start does not guarantee an efficient and effective system. The FBI will need to continue managing the project carefully throughout the acquisition process to ensure a successful implementation.

We are providing copies of this report to the Chairman, House Judiciary Committee, Subcommittee on Civil and Constitutional Rights, and to other interested congressional committees and subcommittees. We will make copies available to others upon request. Should you have any questions about this report or require additional information, please contact me at (202) 275-3195. Major contributors to this report are listed in appendix II.

Sincerely yours,



Jack L. Brock, Jr.
Director, Government Information
and Financial Management

Objectives, Scope, and Methodology

We reviewed the Federal Bureau of Investigation (FBI) National Crime Information Center (NCIC 2000) system replacement effort as part of our responsibility to ensure that federal agencies acquire and use information technologies in a cost-effective manner. Our objective was to identify potential risks that could affect the system's cost, schedule, or performance. A second objective was to pilot test a risk assessment methodology we recently developed. We considered three issues in choosing to review the NCIC 2000 project. First, it is a large project estimated to cost more than $100 million over its life cycle. Second, the system is critical to successful activities of the FBI and other law enforcement agencies. Finally, the project's request for proposals had not been released, making it easier to quickly address any risks we identified.

Our assessment covered the following key areas:

- roles of system users and new system requirements,
- draft request for proposals,
- source selection plan,
- project schedules,
- project staff and management, and
- roles of senior managers.

We performed our work from March through June, 1991. Our review was limited to issues related to developing a request for proposals, planning for a system development contract, and preparing to manage the contract after award. We used GAO's acquisition models[3] to assess whether the project had any major risks that should be addressed by management. We also reviewed provisions of the Federal Acquisition Regulation and the Federal Information Resources Management Regulation.

During our review we interviewed responsible officials of the Department of Justice's Systems Policy Staff, as well as officials of the FBI's Technical Services and Administrative Services divisions. FBI officials included the program manager responsible for NCIC 2000 as well as other system development efforts, the project manager for NCIC 2000, the head of the NCIC office, and the contracting officer. We examined key planning documents for the project. In addition, we conducted a telephone survey of NCIC users in each of the 50 states, the District of Columbia, and 11 federal agencies.

[3]GAO/IMTEC 8.1.6, August 1990.

We obtained oral comments from the FBI on a draft of this report and incorporated these comments as appropriate. Our work was performed in accordance with generally accepted government auditing standards.

Major Contributors to This Report

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