



National Institute of Justice

S o l i c i t a t i o n

Jeremy Travis, Director

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Information Technology Acquisition: Local and State Law Enforcement

APPLICATION DEADLINE:

September 5, 1997

U.S. Department of Justice
Office of Justice Programs
633 Indiana Avenue N.W.
Washington, DC 20531

Janet Reno
Attorney General
U.S. Department of Justice

John C. Dwyer
Acting Associate Attorney General

Laurie Robinson
Assistant Attorney General

Jeremy Travis
Director, National Institute of Justice

Justice Information Center
World Wide Web Site
<http://www.ncjrs.org>

INFORMATION TECHNOLOGY ACQUISITION: LOCAL AND STATE LAW ENFORCEMENT

I. Introduction

The technological revolution that is sweeping the nation and the world has captured law enforcement in the same hurricane of change. Technologies that were considered ultra advanced or only within the reach of the most affluent agencies twenty years ago, such as computer aided dispatch and computerized crime records, are now viewed as essential equipment in law enforcement, while, at the same time, more sophisticated technology applications are on the drawing boards waiting to challenge law enforcement agencies.

NIJ is streamlining its process to accommodate the volume of proposals anticipated under this and other Crime Act solicitations. Researchers can help in a significant way by sending NIJ a nonbinding letter of intent by August 22, 1997. The Institute will use these letters to forecast the numbers of peer panels it needs and to identify conflicts of interest among potential reviewers. There are three ways to send these letters. You can fill out the mailer on the last page of this solicitation. You can reach NIJ by Internet by sending e-mail to *tellnij@ncjrs.org* and identifying the solicitation and section(s) you expect to apply for. You can write a letter with the same information to Information Technology Acquisition: State and Local Law Enforcement, 633 Indiana Avenue N.W., Room 303, Washington, DC 20531. Help us help you.

The law enforcement industry is clearly in the midst of a proliferation of technology options. The number

of businesses and industries viewing law enforcement as a promising consumer is increasing. The need to select technology from the large variety of available options, to understand performance standards in the midst of a high level of complexity, to assess vendor options amid competing approaches, and the need to successfully integrate technological advances into day to day law enforcement practice poses challenges that policy makers can sometimes meet only on a trial-and-error basis. This NIJ solicitation seeks research applications in the area of information technology acquisition for state and local law enforcement for the purpose of developing guidelines and models to assist law enforcement policy makers and practitioners to effectively navigate through this technological revolution.

This dynamic movement has been recognized at the Federal policy level in that Congress set aside one percent of the policing funds of the Crime Act - \$20 million a year - to support the development of new technologies. Similarly, within NIJ, Congress funded the creation of a network of five regional law enforcement and corrections technology centers around the country to bring technologies closer to the end user at the local level.

II. Background

The development of information technologies for law enforcement has been underway since the 1960s. There was an early concentration on computer aided dispatch, with a later concern for comprehensive management information systems. Now, as law enforcement operations advance, applications such as electronic pin mapping, geo- mapping, live scan fingerprinting, and computerized case management are becoming essential technologies for some

departments. Applications, such as regional crime data bases, Internet accessibility to crime reports for citizens, and the use of virtual reality for training are considered cutting edge technologies. Law enforcement information technology transitioned from large main-frames to personal computer applications parallel to industry, while experience and learning taught departments to ensure that capacities such as rapid access to crime data and system redundancy be standard features of information systems.

The application of information technology to law enforcement has, for the most part, yielded considerable improvement and efficiency. At the same time, it has posed challenges for departments with little prior experience, limited access to technical expertise, and those considered late arrivals in acquiring information technology. Further, as law enforcement has progressed there have been clear stages of development closely paralleling those in other industries. Initially, decisions on hardware and software, implementation planning, and impact evaluation were generally conducted by technical staff with little or no input from management. Over the years, experience of both technical staff and management has fostered the recognition that input from management and other police staff throughout the planning, selection and implementation process is essential for effective systems. Also, in some agencies, law enforcement sworn personnel, recognizing the significance of technology infusion, have attempted independently to gain skills to guide and direct the process.

As a result there are varying levels of expertise for effective and efficient information technology acquisition across the law enforcement industry. NIJ seeks research that would lay a foundation for cultivating a consistent level of expertise within law enforcement for this significant area.

The purpose of this research is to develop law enforcement guidelines for information technology acquisition that can be packaged as print medium, artificial intelligence, or expert systems to provide working models for planning, needs assessment, selection, implementation and evaluation. Populations that may benefit from this research include law enforcement executives, government policy makers, mayors, governors and others responsible for law enforcement budgets and operations. One grant or cooperative agreement of up to \$500,000 will be awarded.

III. Research Specifications

Subject Areas

For the purposes of this solicitation, information technology includes law enforcement management information systems (MIS), computer aided dispatch (CAD), electronic pin mapping, geo mapping, and other information technologies appropriate to police functions.

There are three phases to the acquisition and adoption of information technology to be considered in this study:

- **Assessment and Decision Making Phase:** Satisfactory selection and purchase of information technology by a police agency requires a series of decisions. This portion of the study should consider questions such as: how are needs assessed by a police agency; how are technologies identified that link to the needs; what stake holders are involved; are other public safety information systems considered; and, how are the assessment and decision making processes related to the budgeting process.
- **Implementation Phase:** Technically, the implementation phase in a police agency begins

once information technology purchases have been identified. Ideally, planning for implementation should begin during the decision making phase. Examples of questions to be considered in this portion of the study are: what is the level and extent of planning for implementation by a police agency; what is the role of staff; and, are agencies or constituencies external to the department involved in the process.

- **Impact Assessment Phase:** Impact evaluation has two dimensions. They consist of studies to determine 1) the changes or improvements that may be needed in a police agency as a result of the new information technology, and, 2) the impact of the new information technology in terms of improved agency efficiency, methodology, and effectiveness. Examples of questions to be considered in this phase of the study for measuring impact are: at what point do departments plan impact studies; and if departments do not conduct impact/effectiveness studies, what problems are likely to occur.

Research Procedures

A combination of some of the following research procedures should be considered in the research design:

- **Focus Groups:** Focus groups may be employed for initial exploration to determine areas of strengths and weaknesses in technology acquisition that may be anticipated, appropriate language and terminology familiar to law enforcement agencies, a sense of the most serious issues faced by law enforcement agencies, and descriptions of current processes that appear to produce satisfactory results. A

second application of focus groups may be following the completion of case studies, and prior to administration of a scanning strategy, in order to refine the final scanning strategy to be employed. If focus groups are utilized in the study then a number of factors should be considered for balanced representation.

- **Case Studies:** Case studies may be conducted for the purpose of developing specific descriptions and outlines of processes currently employed in law enforcement agencies acquiring information technology. Departments selected for case study may be considered representative or exemplary. Four to ten cases are recommended.
- **Comprehensive Study:** A comprehensive scanning strategy may be developed based on the findings from the focus groups and the case studies and distributed broadly to determine and confirm the state-of-the-art of information technology acquisition and infusion in law enforcement. The comprehensive study will ensure generalizability and transferability of the model development to departments nationally.
- **Model Development:** The final phase of the research may be the development of model processes in the areas of decision making, implementation and impact evaluation for application by law enforcement agencies in the acquisition and infusion of information technology.

Future Research: A second research phase may be undertaken through a subsequent solicitation and award following the completion of this project. The purposes of a second study may be to conduct comparative experiments to obtain optimal processes for decision making, implementation and impact evaluation processes. This endeavor may also

include demonstration programs to test and disseminate processes. One final consideration may be a study to determine which law enforcement processes are most suitable for information technology and to identify other law enforcement processes that may be appropriate for technology application but have not been previously considered. Other future research solicitations may focus on developing models of decision making, implementation and impact evaluation for other law enforcement technologies such as less-than-lethal weapons, vehicles, and concealed weapons detection technologies.

User Products/Outcomes: The products and outcomes of the current research will be guides and models for decision making, implementation and impact evaluation for technology acquisition and infusion. These products may be packaged as print medium, artificial intelligence or expert systems.

IV. How to Apply

Those interested in submitting proposals in response to this solicitation must complete the required application forms and submit related required documents. (See below for how to obtain application forms and guides for completing proposals.) Applicants must include the following information/forms to qualify for funding:

- Standard Form (SF) 424—application for Federal assistance
- Assurances
- Certifications Regarding Lobbying, Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements (one form)
- Disclosure of Lobbying Activities
- Budget Detail Worksheet
- Negotiated indirect rate agreement (if appropriate)

- Names and affiliations of all key persons from applicant and subcontractor(s), advisors, consultants, and advisory board members. Include name of principal investigator, title, organizational affiliation (if any), department (if institution of higher education), address, phone, and fax.
- Proposal abstract
- Table of contents
- Program narrative or technical proposal (page limit is 30 pages, double spaced)
- Privacy certificate, as appropriate
- References
- Letters of cooperation from organizations collaborating in the research project.
- Résumés
- Appendixes, if any (e.g., list of previous NIJ awards, their status, and products [in NIJ or other publications]).

Due date. Completed proposals **must be received** at the National Institute of Justice by the close of business on September 5, 1997. Extensions of this deadline will not be permitted.

Award period. In general, NIJ limits its grants and cooperative agreements to a maximum period of 12 or 24 months. However, the maximum length of this study will be 18 months.

Number of awards. NIJ will award one grant or cooperative agreement under this solicitation.

Award amount. One award up to \$500,000 will be made available for this NIJ solicitation.

Guidance and information. Applicants who wish to discuss their potential research topics with NIJ program staff, should contact Phyllis McDonald, NIJ Program Manager, at (202) 616-3653, or the U.S. Department of Justice Response Center at 800-421-6770.

Obtaining application forms. To obtain application forms (including a sample budget worksheet) and guidelines for submitting proposals (including requirements for proposal writers and requirements for grant recipients), applicants can:

- Access the Justice Information Center on the Web: <http://www.ncjrs.org/fedgrant.htm#NIJ>. At this site, the NIJ application forms and guidelines are available as electronic files that may be downloaded to a personal computer.
- Request hard copies of the forms and guidelines by mail from the National Criminal Justice Reference Service at 800–851–3420 or from the Department of Justice Response Center at 800–421–6770 (in the Washington, D.C., area, at 202–307–1480).
- Request copies by fax. Call 800–851–3420 and select option 1, then option 1 again for NIJ. Code is 1023.

Send completed forms to:

Information Technology Acquisition: Local and State
Law Enforcement
National Institute of Justice
633 Indiana Avenue N.W., Room 303
Washington, DC 20531

For more information on the National Institute of Justice, please contact:

National Criminal Justice Reference Service

Box 6000

Rockville, MD 20849-6000

800-851-3420

e-mail: askncjrs@ncjrs.org

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301-519-8895 (modems should be set at 9600 baud and 8-N-1)
or telnet to bbs.ncjrs.org

To access the World Wide Web site, go to
<http://www.ncjrs.org>

If you have any questions, call or e-mail NCJRS.