U.S. Department of Justice
Office of Justice Programs
National Institute of Justice

Feb 04

NIJ

Solicitation

Interoperable Voice Communication and Information Sharing: Research and Development, FY 2004

Deadline:

**9 p.m. eastern time
April 27, 2004**

SL 000666

U.S. Department of Justice
Office of Justice Programs
810 Seventh Street N.W.
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I. Introduction

The National Institute of Justice (NIJ) is the research, development, and evaluation agency of the U.S. Department of Justice. NIJ provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety. The Institute solicits proposals to inform its search for the knowledge and tools to guide policy and practice.

With this solicitation, NIJ seeks proposals for research in and development and/or demonstration of emerging technology solutions for interoperable voice communications and information sharing for use by public safety agencies. Inadequate and unreliable wireless communications and information sharing have plagued public safety agencies for decades. Through the AGILE program, NIJ is interested in technologies that will help public safety agencies address these issues and in understanding how these technologies could fit into a broader, national-level interoperability solution.

Qualified proposals will be considered in the following categories:

- Proof-of-concept projects.

- Test beds for new technologies.

- Research in and development of enabling technologies.

- Standards development.

Due date: The due date is listed on the cover of this announcement and on the NIJ Web site at *http://www.ojp.usdoj.gov/nij/funding.htm.* Extensions to the deadline are generally not granted.

Page limit: The program narrative section of your proposal must not exceed 25 double-spaced pages in 12-point font with 1-inch margins. Tables, charts, figures, appendixes, and government forms do not count toward the 25-page limit.

Reasons for rejection: NIJ may reject applications that are incomplete, do not respond to the scope of the solicitation, do not comply with format requirements, or are submitted after the deadline. No additions to the original submission are allowed.

How to submit proposals to NIJ: Complete details about how to apply for funding are in "NIJ Guidelines for Submitting Applications," available on the NIJ Web site at *http://www.ojp.usdoj.gov/nij/funding.htm.*

II. Proposal Topics

A. Interoperable Voice Communications

According to a report by the NIJ-sponsored National Task Force on Interoperability, released in February 2003 *(When They Can't Talk, Lives Are Lost*, at *http://www.agileprogram. org/ntfi/publications.html*), the public safety community has identified the following key problems that hamper public safety wireless communications today:

- Incompatible and aging communications equipment.

- Limited and fragmented budget cycles and funding.

- Limited and fragmented planning and coordination.

- Limited and fragmented radio spectrum.

- Limited equipment standards.

In many cases, agencies cannot perform their mission-critical duties. These agencies are unable to share critical voice or data information via radio with other jurisdictions in day-to-day operations and in emergency responses, including responses to acts of terrorism and natural disasters.

The sheer number of State and local public safety agencies in this country demonstrates that the bulk of first-responder equipment and personnel is at the local level. Given the diversity of agencies, geography, equipment, and demographics, there will be no "one-size-fits-all" solution. Instead, future solutions will need to accommodate a system-of-systems approach. Thus, this solicitation seeks proposals to develop and demonstrate public safety communications technology that will help achieve the long-term goal of creating a "system of systems" by which public safety across disciplines and jurisdictions will be fully interoperable when necessary.

NIJ is interested in proposals and projects that will promote the development of emerging public safety communications technologies that will interconnect existing systems and allow for the future development of new technologies and functionalities. These solutions would be based on mainstream technology, make use of standards, and accommodate a wide variety of local operational and technical requirements.

Applicants must describe a system approach that is scalable. Public safety can benefit from routine interoperable communications. If future systems are designed only for large-scale events, their effectiveness will be diminished by lack of routine use and understanding. Future interoperability systems need to be able to assist with day-to-day activities and then scale up effortlessly to handle large-scale events.

Future systems need to be able to address the physical and proprietary barriers to interoperability. This means that they need to be able to accommodate all spectrum bands and interoperate with systems from all manufacturers.

Emerging public safety communications technologies should leverage mainstream technology. Public safety will benefit by sharing the cost of innovation with the much-larger commercial sector. A mainstream choice will also foster innovation, competition, and open architecture, while incorporating existing systems with other technology.

NIJ seeks proposals in the following categories:

• Research and development of emerging technologies required for future interoperable communications solutions. This activity is meant to accelerate the development of future technology of open systems-based interoperability architectures and approaches.

• Proof-of-concept pilot projects that demonstrate the use of open systems-based interoperable communications.

• Test beds that demonstrate the use of new interoperability technologies in an operational environment.

• Standards development that promotes the uniform adoption of open-systems-based interoperable communications.

B. Information Sharing

NIJ seeks proposals to develop affordable information-sharing tools that will provide information from within one agency's databases and those of other cooperating agencies. Specific areas of interest include information security and knowledge mining (described in sections 1 and 2 below).

Proposals should consider the following broad agency needs and requirements:

• Secure access to local, State, and national law enforcement information.

- Transparent access to pertinent information across multiple jurisdictions.

- Critical information disseminated securely and rapidly to officers.

- To the extent possible, use of existing data sources in the new technologies.

- Role-based access control to support the rigorous security requirements and operations of criminal justice agencies.

- Any proposed tool, technology, or technique must allow agencies to comply with laws, policies, and guidelines that govern information security, access, and appropriate use of information and to preserve the privacy rights and constitutional rights of individuals.

- Applicants should refer to the guidance provided by OJP's Global Justice Information Sharing Initiative (see *http://www.it.ojp.gov*), particularly the requirements established by OJP's National Criminal Intelligence Sharing Plan (see *http://www.it.ojp.gov/documents/National_Criminal_Intelligence_Sharing_Plan.pdf*).

  1. **Security.** NIJ is interested in security tools, technologies, and techniques that will provide public safety agencies with the necessary flexibility to share data among jurisdictions. This includes data sharing over wireless networks. Of particular interest are methods to resolve security conflicts among legacy information systems and networks. Cost-effective approaches that use systems-oriented architecture or XML (extensible markup language) standards to enable information sharing are encouraged. Rapidly evolving infrastructures, such as the Internet, provide an efficient means to share data among many public safety agencies. Because data are shared, securing the data is essential. Laws, policies, and guidelines that govern security and access to and permissible uses of information can vary greatly and change quickly. These can be legitimate barriers to easy, cost-effective implementation of information-sharing systems by public safety agencies.

  2. **Knowledge Mining.** Public safety agencies collect vast amounts of information. NIJ is interested in proposals to develop affordable knowledge-mining tools and techniques that can derive useful information from the data, within the limits of applicable laws, regulations, and policies, including the privacy rights and constitutional rights of individuals. Of particular interest are projects that also will enable agencies to share information derived from data stored across multiple jurisdictions.

III. General Requirements and Guidance

This section describes the main requirements for submitting your proposal. Complete instructions are in "NIJ Guidelines for Submitting Applications," available on the NIJ Web site at *http://www.ojp.usdoj.gov/nij/funding.htm.*

A. **Submit applications online:** Paper applications are not accepted. Applications must be submitted through the Office of Justice Programs' online Grants Management System. NIJ suggests you begin the process early, especially if this is the first time you have used the system. To begin, go to *http://www.ojp.usdoj.gov/fundopps.htm.* There are three types of documents that can be uploaded to an application package: PDFs, Word Documents, and Text Documents.

B. **Relevance of the project for policy and practice:** Higher-quality proposals clearly explain the practical implications of the project. They connect technical expertise with policy and practice. To ensure that the project has strong relevance for policy and practice, some researchers and technologists collaborate with practitioners and policymakers. You may include letters showing support from practitioners, but they carry less weight than clear evidence that you understand why policymakers and practitioners would benefit from your work and how they would use it. While a partnership may affect State or local activities, it should also have broader implications for others across the country.

C. **Equal opportunity for all applicants:** It is OJP policy that faith-based and community organizations that statutorily qualify as eligible applicants under OJP programs are invited and encouraged to apply for awards. Faith-based and community organizations will be considered for an award on the same basis as any other eligible applicants and, if they receive awards, will be treated on an equal basis with nonfaith-based and community organization grantees in the administration of such awards. No eligible applicant or grantee will be discriminated against on the basis of its religious character or affiliation, religious name, or the religious composition of its board of directors or persons working in the organization.

D. **Cofunding is not required:** You are not required to combine NIJ funds with other funds (for example, you do not need matching funds), but if you intend to use multiple funding sources to support your proposed effort, the budget you submit must show the other funds.

E. **Number of grants to be awarded:** NIJ's grant award process is highly competitive. The number of awards to be made depends on the availability of funds and the number and quality of applications received.

F. **When awards will be made:** The review and approval process takes about 6 months. Therefore, you should not propose to begin work until at least 6 months after the deadline on the cover of this solicitation. Also, you should not expect to receive notification of a decision for at least 6 months after that date. Lists of awards are updated regularly on NIJ's Web site at *http://www.ojp.usdoj.gov/nij/funding.htm.*

G. **Financial audits are required:** If your organization spends $500,000 or more of Federal funds during the year, you will be required to submit an organization-wide financial and compliance audit report before any award is made. The audit must be performed in accordance with the U.S. General Accounting Office Government Accounting Standards and must conform to Chapter 19 of the Office of Justice Programs' *Financial Guide* (available at *http://www.ojp.usdoj.gov/FinGuide).* You may include the costs of complying with these audits in the proposed budget submitted as part of your application. Detailed information regarding the independent audit is available in Office of Management and Budget Circular A–133 (available at *http://www.whitehouse.gov/omb/circulars).*

H. **An environmental assessment may be required:** All award recipients must comply with the National Environmental Policy Act (NEPA). To ensure NEPA compliance, NIJ may require some award recipients to submit additional information.

I. **Protection of confidentiality:** Federal regulations require applicants for NIJ funding to outline specific procedures for protecting private information about individuals as part of the Privacy Certificate submitted with the application package. For complete details, see *http://www.ojp.usdoj.gov/nij/funding.htm.*

J. **New requirement—DUNS number:** Beginning October 1, 2003, a Dun and Bradstreet Data Universal Numbering System (DUNS) number must be included in every application for a new award or renewal of an award. The DUNS number will be required whether an applicant submits an application through the Office of Justice Programs' Grants Management System or using the government-wide electronic portal (*http://www.grants.gov*). **An application will not be considered complete until a valid DUNS number is provided by the applicant.** Individuals who would personally receive a grant or cooperative agreement from the Federal government are exempt from this requirement.

Applicants can receive a DUNS number at no cost by calling the dedicated toll-free DUNS number request line at 1–866–705–5711.

If you have questions, contact the Office of Justice Programs' Office of the Comptroller's Customer Service Center at 1–800–458–0786.

K. Funds cannot be used to lobby: Under the Anti-Lobbying Act (18 U.S.C. § 1913), grantees generally may not use funds to support the enactment, repeal, or modification of any law, regulation, or policy at any level of government. For the complete rules and regulations, see "NIJ Guidelines for Submitting Applications" at *http://www.ojp.usdoj.gov/nij/funding.htm* and OJP's *Financial Guide* at *http://www.ojp.usdoj.gov/FinGuide.*

L. What will *not* be funded: Typically, NIJ *does not* fund the following:

1. Provision of training or direct service.

2. Proposals primarily to purchase equipment, materials, or supplies. (However, your budget may include these items if they are necessary to conduct applied research, development, demonstration, evaluation, or analysis, but NIJ does not fund proposals that are primarily to purchase equipment.)

3. Work that will be funded under another specific proposal.

4. Proposals that do not involve the applied research, development, analysis, evaluation, or demonstration of one or more technologies.

M. Number of grants to be awarded: NIJ's grant award process is highly competitive. The number of awards will depend on the availability of funds and the number and quality of applications received.

N. Call for assistance:

1. For technical guidance about using the Grants Management System, call the hotline at 1–888–549–9901.

2. For questions about this solicitation, the research being solicited, or other NIJ funding opportunities, contact the U.S. Department of Justice Response Center at 1–800–421–6770.

IV. Selection Criteria

NIJ is firmly committed to the competitive process in awarding grants. All proposals are subjected to an independent peer-review panel evaluation. External peer-review panelists consider both technical and programmatic merits. Panelists are selected based on their expertise in subject areas pertinent to the proposals.

Peer-review panelists evaluate each proposal and give their assessments to NIJ. NIJ staff then recommend to the NIJ Director which proposals are most worthy of an award. The Director makes final award decisions.

Successful applicants must demonstrate the following:

A. Understanding of the problem and its importance.

B. Quality and technical merit.

1. Awareness of the state of current research or technology.

2. Soundness of methodology and analytic and technical approach.

3. Feasibility of proposed project and awareness of pitfalls.

4. Innovation and creativity (when appropriate).

C. Impact of the proposed project.

1. Potential for significant advances in scientific or technical understanding of the problem.

2. Potential for significant advances in the field.

3. Relevance for improving the policy and practice of criminal justice and related agencies and improving public safety, security, and quality of life.

4. Affordability and cost-effectiveness of proposed end products, when applicable (e.g., purchase price and maintenance costs for a new technology or cost of training to use the technology).

5. Perceived potential for commercialization and/or implementation of a new technology (when applicable).

D. Capabilities, demonstrated productivity, and experience of applicants.

1. Qualifications and experience of proposed staff.

2. Demonstrated ability of proposed staff and organization to manage the effort.

3. Adequacy of the plan to manage the project, including how various tasks are subdivided and resources are used.

4. Successful past performance on NIJ grants and contracts (when applicable).

E. Budget.

1. Total cost of the project relative to the perceived benefit.

2. Appropriateness of the budget relative to the level of effort.

3. Use of existing resources to conserve costs.

F. Dissemination strategy.

1. Well-defined plan for the grant recipient to disseminate results to appropriate audiences, including researchers, practitioners, and policymakers.

2. Suggestions for print and electronic products NIJ might develop for practitioners and policymakers.

V. Requirements for Successful Applicants

If your proposal is funded, you will be required to submit several reports and other materials as follows:

A. **Final report:** The final report should be a comprehensive overview of the project and should include a detailed description of the project design, data, and methods; a full presentation of scientific findings; and a thorough discussion of the implications of the project findings for criminal justice practice and policy. It must contain an abstract of no more than 400 words and an executive summary of no more than 2,500 words.

A draft of the final report, abstract, and executive summary must be submitted 90 days before the end date of the grant. The draft report will be peer reviewed upon submission. The reviews will be forwarded to the principal investigator with suggestions for revisions. The principal investigator must then submit the revised final report, abstract, and executive summary by the end date of the grant. The abstract, executive summary, and final report must be submitted in both paper and electronic formats.

For evaluation studies, the report should include a section on measuring program performance. This section should outline the measures used to evaluate program effectiveness, modifications made to those measures as a result of the evaluation, and recommendations regarding these and other potential performance measures for similar programs. (This information will be particularly valuable to NIJ and other Federal program agencies in implementing performance measures for federally funded criminal justice programs.)

B. **Interim reports:** Grantees must submit quarterly financial reports, semi-annual progress reports, and a final progress report. Future awards and fund drawdowns may be withheld if reports are delinquent. Post-award reporting requirements are described in "NIJ Guidelines for Submitting Applications," available at *http://www.ojp.usdoj.gov/nij/funding.htm.*

C. **Materials concerning protection of confidential information and human subjects:** Recipients of NIJ research funds must comply with Federal regulations concerning the protection of private information about individuals. Recipients also must comply with Federal regulations concerning protection of human subjects. In general, all research involving human subjects that is conducted or supported by NIJ funds must be reviewed and approved by an Institutional Review Board before Federal funds are expended for that research. NIJ may also ask grant recipients for additional information related to privacy and human subjects testing.

    Additional general information regarding NIJ's requirements for privacy and protection of human subjects appears in "NIJ Guidelines for Submitting Applications," available at *http://www.ojp.usdoj.gov/nij/funding.htm.* Complete information about NIJ's requirements can be found at *http://www.ojp.usdoj.gov/nij/humansubjects*.

D. **Electronic data:** Some grant recipients will be required to submit electronic data and supporting documentation, such as a codebook or dictionary, capable of being re-analyzed and used by other researchers. The materials must be submitted by the end date of the grant. Grant applicants should ensure that the proposed timeline and budget accommodate these requirements.

E. **Performance guidelines:** NIJ collects data to comply with the Government Performance and Results Act (GPRA), Public Law 103–62. Generally, these data are contained in a grantee's final report (discussed in Section V of this solicitation), but NIJ may request additional information to facilitate future planning and to ensure accurate reporting to Congress and others on the measurable results of grants. For complete details, see "NIJ Guidelines for Submitting Applications," available at *http://www.ojp.usdoj.gov/nij/funding.htm.*

Tips for Submitting Your Application

1. Begin the application process early—especially if you have never used the online Grants Management System before. NIJ will not accept applications received after the closing date and time listed on the cover. To start the process, go to *http://www.ojp.usdoj.gov/fundopps.htm.*

2. Be sure your application package includes—

    C   Abstract of no more than 400 words.

    C   Complete budget, including detailed worksheet and narrative.

    C   Program narrative.

3. Review "NIJ Guidelines for Submitting Applications" for complete instructions, available at *http://www.ojp.usdoj.gov/nij/funding.htm.*

4. Although your proposal may budget for the purchase of equipment if the equipment is necessary to conduct the project, NIJ will not fund applications that are primarily to purchase equipment, materials, or supplies.

5. Call for help:

    C   For technical guidance about the Grants Management System, call the hotline at 1–888–549–9901.

    C   For questions about this solicitation, the research being solicited, or other NIJ funding opportunities, contact the U.S. Department of Justice Response Center at 1–800–421–6770.

View or print a copy of this document from the NIJ Web site *(http://www.ojp.usdoj.gov/nij/funding.htm)* or request one by calling NCJRS at 1–800–851–3420 or e-mailing askncjrs@ncjrs.org.

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NIJ is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.