NIBRS

Acquiring Incident-Based Reporting (IBR) Software and Services

Key Topics for Law Enforcement to Consider

March 2018

NCS-X
National Crime Statistics Exchange

Acquiring Incident-Based Reporting (IBR) Software and Services:

Key Topics for Law Enforcement to Consider

Law enforcement agencies that are committed to participating in the National Incident-Based Reporting System (NIBRS) will base their submission of data on their records management system (RMS). Research indicates that approximately 80% of local law enforcement agencies acquired their RMS from commercial suppliers. In making their transition to NIBRS reporting, most agencies will work with their current service provider to add IBR reporting capabilities to their current RMS and to provide the services (training, software installation and configuration, support) necessary to enable NIBRS compliance and reporting. Depending on local procurement practices and the total cost of the solution, some agencies may issue a sole source contract to the RMS supplier to make the changes and provide the services, but many others will be required to solicit bids using a request for proposal (RFP) or other open competitive procurement process.[1] In some cases, agencies may choose to acquire a completely new RMS.

Regardless of the method for acquiring software and related services, agencies should address some key issues in their RFPs or SOWs for the implementation of IBR. A number of implementation issues need to be considered in the acquisition process, and the list provided below is not exhaustive. To assist in this process, BJS and the FBI have issued a supporting companion document entitled "NIBRS — Acquiring Incident-Based Reporting (IBR) Software and Services: Model Statement of Work" that further expands on best practices for agencies acquiring software and services. The following is provided as guidance in drafting the RFP or SOW:

1. Required conformance to incident based reporting

The service provider should include the following capabilities in the IBR modification or extension to the RMS:

    a. Conformance to the most current version of the National Incident-Based Reporting System (NIBRS) standards, as well as any modifications or further IBR specifications established by the state. NIBRS technical specifications are available on the FBI web site. [https://ucr.fbi.gov/technical-specifications] The software should be able to generate a NIBRS file in a format that conforms to the technical reporting specifications established by the FBI or the relevant State UCR Program Office. It should be noted that the FBI (and state programs) are actively transitioning to XML submissions of NIBRS data, so agencies increasingly should require contractors to conform to the FBI's Information Exchange Package Documentation (IEPD) as published at the time of contract on the FBI web site.

    b. Inclusion of all data elements, edits and quality control rules for entry and validation of data as specified in the FBI NIBRS specifications, and as modified or extended by

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[1] OJP financial policy allows grantees to issue sole source contracts for up to $150,000 without requiring OJP approval. Larger amounts require advance approval and full justification.

the state. The FBI is making a rules engine available for data submissions using the most current XML format (XCOTA) that service providers can use to ensure that their data submissions are NIBRS conformant (https://ucr.fbi.gov/nibrs-xml-x-cota-tool). The NCS-X program is also making an open source *NIBRS Pre-Certification Tool* available that will enable local agencies to test their NIBRS submission before formally reporting the data to either their State UCR Program or the FBI for validation and certification. This *NIBRS Pre-Certification Tool* (which can be accessed at http://nibrs.search.org/nibrs-web) helps reporting agencies identify and resolve data quality issues and potential errors before the files are even submitted to state and federal reporting program.

c. Ability to submit the IBR data to the state in a format and frequency as specified by the state or the FBI in the event the state is not prepared to receive the data and has agreed that the agency should report directly to the FBI. Submissions must conform to the specifications published by the state or the FBI regarding protocols and formats to be used.

d. Assistance with and support for certification of IBR reporting accuracy by the state (or by the FBI where the agency is involved in direct reporting). This should include submitting and correcting IBR data submissions to the point of certification by the state or the FBI

As part of the evaluation process, the agency may wish to require that the software provider demonstrate that state IBR or FBI NIBRS requirements have been met. This can be based on the software provider's experience performing IBR reporting in the state or has assisted an agency to be certified in another state or with the FBI. The service provider should present evidence that the data edit and validation rules will be included in the offering at the time of delivery.

2. Migration of legacy data

Legacy data is the data that the agency has captured in the past that may have been designed to support the summary UCR program with its limitations on offense categories and use of the hierarchy rule. Attempts to convert this data to a NIBRS architecture can introduce significant errors and may in many cases be very difficult without actually reentering incident reports under the new rules of NIBRS. Given the limitations in the potential for conversion, such an attempt may actually distort the historical statistics on crime and prevent a continuation of the trend analysis. The complexity and opportunity for error introduced by the conversion of data from a Summary UCR based system to a NIBRS based system suggests that such a conversion is not a sound practice. A preferred approach is that the software provider should be informed that there is no intent to migrate existing data to conform to IBR reporting specifications, but that it is desired that the legacy data be preserved in such a way that summary UCR reports may continue to be generated in order to maintain continuity of historical time series. Accordingly, the software provided must be capable of replicating summary UCR reports for purposes of maintaining historical time series statistics from IBR data for a predefined period.

3. Training requirements

Training needs are an important part of the services that each agency should acquire to make a successful transition to NIBRS, but the needs will vary significantly depending on the extent of the changes that must be introduced and the capability of the agency to provide its own training program and other factors. The following is a list of the full extent of training services that might be appropriate and the agency should determine which of these services are required. These service provider training components can be augmented with additional agency IBR training which can be delivered at no cost from the FBI.

The software provider should make available training for the following audiences:

a. System manager training in the operation of the IBR software including the submission of data to the state or FBI as appropriate;

b. Training for the personnel in the agency responsible for quality control review and correction of incident reports;

c. Training for command and management staff on the processes that are required to produce valid IBR data submissions and on the utility of IBR for local agency purposes;

d. The design of and materials to train officers and analysts that may be involved in data entry of incident reports; and

e. Follow up training addressing any remaining data or process issues pertaining to end users, supervisors, records clerks or system manager issues as determined by the agency to be delivered 6 months following certification of IBR submittal.
[Note: it will provide for more clarity and understanding if the instructions to the software provider specify the estimated number of people to be trained in each of the above categories.]

4. Ongoing software support

The software provider will be required to include support for the IBR software including the IBR submission to the state or FBI and any modifications to the RMS required for ensuring continuing compliance to IBR requirements in the same fashion and in the same degree and for the same time period as specified in the RMS software maintenance agreement currently in place, with a minimum duration of service being one year. Agencies should consider modifying their RMS maintenance agreement to include as a covered cost any future changes to the NIBRS standard required by either the FBI or their State UCR Program.
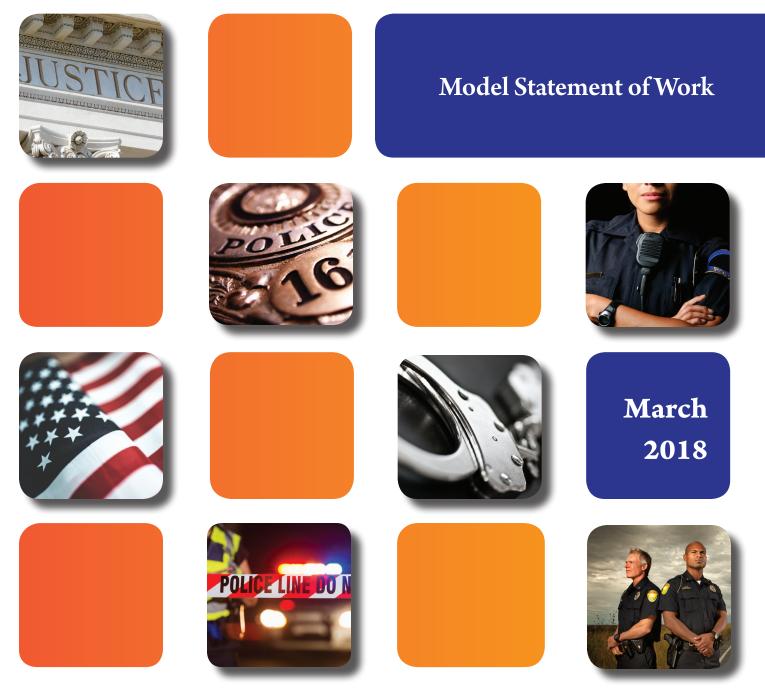
5. Integration of external systems

The agency should include in the RFP or SOW all external systems that may be affected by the implementation of IBR. The RFP or SOW should identify all external systems that are 1) not currently considered as a part of the RMS, and 2) collect data that is helpful and relevant to creating and disseminating incident-based reports so the service provider can determine the method of interfacing such systems to the RMS. The service provider should include in their proposal the means of implementing such interfaces including the specific protocols to be used and periodicity of data transfer where applicable. Examples of external systems that could be

considered relevant include body-worn and in-car camera data, ALPR, facial recognition, evidence tracking systems, mobile reporting platforms, CAD, jail booking, fingerprint processing (AFIS), etc.

NIBRS

Acquiring Incident-Based Reporting (IBR) Software and Services

Model Statement of Work

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NIBRS Acquiring Incident-Based Reporting (IBR) Software and Services:

Model Statement of Work

Purpose of This Document

State and local law enforcement agencies preparing to transition their crime reporting from the FBI's Summary Reporting System (SRS) to the National Incident-Based Reporting System (NIBRS) of the Uniform Crime Reporting (UCR) Program are faced with making changes to their local crime reporting software and affiliated systems. These changes are compounded where the agency must conform to additional state-specific incident-based reporting requirements above and beyond the NIBRS standards published by the FBI. Agencies will typically seek support from the application service provider or organization that provides the current law enforcement records management system (RMS) for the agency. To assist agencies in making the transition to NIBRS reporting, the Bureau of Justice Statistics (BJS) and the FBI, along with private sector partners, have developed guidance for agencies on how to define the scope of work for an RMS provider to facilitate the NIBRS transition.

Based on discussion and recommendations from practitioners and participating industry providers, this document presents a model or example of the content an agency should consider when creating a Statement of Work (SOW) for the RMS provider to follow in transitioning from SRS to NIBRS reporting. The suggested language and requirements contained in this document should be sufficiently complete to be used in a contract that the agency negotiates with the RMS provider. If an agency does not have an existing RMS and elects to take advantage of a remotely hosted RMS, the provisions in this document are recommended as a definition of the services an agency should require in any such procurement.

Nothing in this document is intended to conflict with or override state or local procurement practices or regulations. The narrative on the following pages is provided as a sample of what an agency should incorporate in their SOW, recognizing there may be additional topics that will have to conform to state or local law or practice or federal funding guidelines.

The concepts and content herein are intended to provide a starting point for agencies when creating a SOW to procure a NIBRS-conformant RMS system or to modify an existing RMS to be NIBRS conformant. A successful transition from SRS to NIBRS reporting, particularly where the agency will be conforming to state-specific versions of incident-based reporting, requires a clearly defined SOW that supports a collaborative and cooperative working relationship with an experienced service provider. Challenges will arise in every project. A well-documented SOW will enable agencies and service providers to navigate to a successful outcome.

This document does not address the preparatory work required in advance of the issuance of a request for proposals (RFP). For a full set of resources for agencies that must conduct a competitive procurement, the IJIS Institute has published a Pre-RFP Toolkit that includes extensive advice, tools, and templates to assist with the preparation and the conduct of a solicitation. The Toolkit can be found at http://www.ijis.org/resource/resmgr/Docs/pre-rfp_toolkit_v3.pdf.

Model Statement of Work for NIBRS Transformation

1. Purpose of Project

The purpose of this project is to assist the [ENTER AGENCY NAME] in the transformation from Summary Reporting System (SRS) of UCR reporting to an incident based reporting capability that conforms with the requirements issued by the FBI for participation in the National Incident-Based Reporting System (NIBRS) and all necessary modifications, enhancements or additions adopted by the state of [ENTER STATE NAME]to complete a state-specific incident-based reporting (IBR) system. This statement of work describes the software and related services the agency seeks to make this transformation from SRS to being state-IBR conformant. The agency expects the provider to accomplish all tasks specified in this Statement of Work (SOW) within [ENTER # OF MONTHS] months following issuance of a purchase order containing this SOW.

The objectives of the project are to produce the following deliverables:

 a. Software modifications and extensions to the Records Management System (RMS) that will provide the capability for state-IBR conformant data collection, validation and submission in accordance with state and federal specifications, as applicable;

 b. Training services in the operation and management of the reporting system as amended; and

 c. Support services for implementation, certification and on-going support and maintenance.

The end result of this project will be the certification of [ENTER AGENCY NAME] by the [ENTER STATE NAME] state UCR Program that the [ENTER AGENCY NAME] meets the state-IBR reporting requirements.

2. Project Tasks and Deliverables

 a. Task 1—Project Management and Reporting

   i. Within 15 days following the execution of a contract under this statement of work, the provider shall submit a project schedule and implementation plan for the review and approval of the agency.

   ii. The provider will manage all provider personnel assigned to ensure that policies of the agency regarding contractor personnel are followed.

   iii. The provider will submit reports describing tasks completed, problems encountered, schedule compliance and next increment work plans on a recurring basis as determined by the agency.

   iv. The provider will submit a final report describing work accomplished, data validation tests and results.

b. Task 2—Software Modifications and Enhancements

  i. The provider will create and test required modifications, extensions or additions to the RMS installation of both mobile computing and fixed computing software so as to create field and fixed data entry of incident data that conforms to FBI and state incident-based data collection, reporting, and validation specifications.

  ii. Data elements in the incident reporting software must conform to the National Incident Based Reporting System (NIBRS) standards and any modifications, extensions or additional IBR specifications established by the state. If no additional state reporting standards are required or defined, the provider will ensure compliance with the latest version of the FBI NIBRS user's manual[1] and technical specification[2] as published on the FBI NIBRS web site. In addition, the software should also enable the creation and submission of IBR data to state or FBI NIBRS reporting programs that conforms to the current version of the FBI's Information Exchange Package Documentation (IEPD) Specification, as published on the FBI web site at the time of contract. Version 4.2 of the XML IEPD can be found at https://ucr.fbi.gov/technical-specifications.

  iii. A capability to automatically translate local and state offense codes to NIBRS offense classifications along with the utility software to create and maintain the lookup table that will be required to make this translation must be provided. *[Note: BJS has encouraged the state UCR/NIBRS programs to take responsibility for making available a conversion table that maps their state master charge code table to NIBRS Offense Codes and if this option is available, the award will include the requirement that the State supported table must be utilized.]*

  iv. The resulting system must include all data elements, edits and quality control rules for entry and validation of entry as specified in FBI NIBRS specifications as modified or extended by the state. NIBRS validation rules as modified or extended by the state must be incorporated in data entry programs so that mandatory data elements are captured and validation rules are applied at the point of incident data entry.

  v. The provider will create the ability to submit the IBR data to the state in a format and frequency as specified by the state, or to the FBI in the event the state is not prepared to receive the data and the state has agreed that the agency may begin reporting directly to the FBI. Submissions must conform to the specifications published by the state or the FBI. Submission specifications are specified at [ENTER LINK].

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[1] https://ucr.fbi.gov/nibrs/nibrs-user-manual
[2] https://ucr.fbi.gov/nibrs_technical_specification_version_3.2_pdf

vi. The provider will create the capability to extract incident data from the NIBRS conformant RMS system in a form following open standards such as XML or comma delimited files that can be submitted to analytical software of the agency's choosing.

vii. Documentation of all modifications and software provided shall include the changes to system documentation and User Manuals as needed to explain the changes or additions made to the RMS under this project for the purpose of NIBRS reporting, and shall include both User Manual updates and technical (system) changes or additions.

c. Task 3—Data Conversion

[Note: Legacy data is the data that the agency has captured in the past that have been designed to support the UCR SRS program, with its limitations on offense categories, data elements and coding schemes, and provisions regarding the hierarchy rule. Attempts to convert legacy incident reports to a NIBRS architecture would be difficult or if not impossible without significant expenditure of personnel resources reviewing, recoding, and reentering legacy incident reports that, in many cases, do not capture the specific reporting requirements and specifications mandated by NIBRS. Given the limitations in the potential for conversion, such an attempt may distort the historical statistics on crime and prevent a continuation of the trend analysis. The complexity and opportunity for error introduced by the conversion of legacy data from SRS to NIBRS suggests that such a conversion is not a sound practice.]

i. There is no intent to migrate existing data to conform to IBR reporting specifications, but it is desired that the legacy data be preserved in such a way that summary UCR statistical analysis is supported to provide historical comparisons beyond the transition to IBR.

ii. For data entered after the IBR transition, in addition to creating the required IBR submission files, the system must continue to provide the option to generate SRS data equivalent to the UCR SRS Return A for [ENTER # OF MONTHS] months following implementation of the IBR modifications.

d. Task 4—Training to Be Provided

[Note: The training needs are an important part of the services that each agency should acquire in order to make a successful transition to NIBRS, but the needs will vary significantly depending on the extent of the changes that have to be introduced and the capability of the agency to provide its own training program and other factors. Training in the use of NIBRS or state codes and rules of counting and classification are the responsibility of the agency or state/FBI training teams, but training in the use of the RMS and field reporting applications should be the primary responsibility of the software provider. The agency should determine which of the services defined below are required.]

i. System manager training for operating the IBR software including the submission of data to the state or FBI as appropriate.

ii. Training for agency personnel responsible for quality control review and correction of IBR related errors with incident reports.

iii. Training for command and management staff on the processes that are required to generate IBR vs. summary reporting and on the utility of IBR for local agency purposes.

iv. The design of and materials for the conduct by the agency of a course for all officers and analysts that may be involved in data entry of incident reports.

v. Follow-up or refresher training covering end users, supervisors, records clerks or system managers as determined by the agency to be delivered 6 months following certification of IBR submittal.

e. Task 5—Implementation Assistance

i. Support for testing and on-site implementation support for a minimum for [ENTER # OF DAYS] days/weeks following initial live operations;

ii. Assistance with and support for certification of IBR reporting accuracy by the state, or by the FBI where the agency is involved in direct reporting, including submitting of IBR data and the corrections thereto up to the point of actual certification by the state or the FBI. While it is recognized that the agency is responsible for training officers or data entry personnel in the basics of NIBRS reporting and for correcting errors reported during the certification process, the software provider must support the agency in correcting any deficiencies in the software or processing of the data attributable to the software provided until the agency meets the certification standards defined by the state or FBI.

iii. As an optional component to include in the SOW and contract, the software provider shall review the external systems available to the agency that are (1) not currently considered as a part of the RMS, and (2) collect data that is required for creating and disseminating incident-based reports to determine the method of interfacing such systems to the RMS. The software provider shall propose an option for implementing such interfaces that includes the specific protocols to be used and periodicity of data transfer where applicable. This provision only applies to such systems as may be currently implemented or are in the process of being acquired at the time of IBR implementation. Examples of external systems that could be considered relevant include body-worn and in-car camera data, ALPR, facial recognition, evidence tracking systems, mobile reporting platforms, CAD, jail booking, automated fingerprint processing (AFIS and LiveScan), etc.

f. Task 6—Post Implementation Support and Maintenance

    i. Service levels to be provided. The service level agreements contained in any existing maintenance contract or service level agreement will be applied to the new IBR software as amended or modified.

    ii. Software maintenance will be provided to correct any errors or deficiencies on the same terms and for the same duration as the existing maintenance agreement in place, or for one year if no maintenance contract is in place.

    iii. User support will be provided to respond to reported problems and issues with IBR reporting for a period of one year following implementation of the software as defined herein.

    iv. The software provider will provide support for the IBR software including the IBR submittal to the state or FBI and any reasonable modifications to the RMS required for ensuring continuing compliance with IBR requirements in the same fashion and in the same degree and for the same time period as specified in the RMS software maintenance agreement currently in place, with a minimum duration of service being one year.

    v. Within a reasonable time as specified by the agency, the software provider shall make any reasonable changes to the software or data handling and submission that may become required based on changes to the data content, validation rules, or submittal protocols made by the state or the FBI as adopted by the state for so long as the agency maintains a software maintenance agreement in good standing. These changes shall be considered covered under said maintenance agreement and will be delivered at no additional cost to the agency.

3. Terms and Conditions

a. Personnel qualifications: Personnel assigned to work on this project shall be of demonstrable professional experience. The agency has the right to cause the removal of any individual from the project who is found to be unprofessional or not to provide satisfactory service or for cause related to violation of criminal law or regulation. Provider shall ensure that all personnel involved in the project comply with FBI CJIS security requirements.

b. Privacy and security restrictions: All applicable local, state, and federal rules, regulations, and authorities regarding protection of privacy and security of data shall be respected in the conduct of this project. The software and services provided under this project shall conform, at a minimum, and as applicable, to the FBI CJIS Security Policy 5.6 which can be accessed at https://www.fbi.gov/file-repository/cjis-security-policy-v5_6_20170605.pdf/view

c. Working spaces provided and access control: All provider personnel on-site and engaging in the delivery or service under this agreement shall abide by the agency's

policies and procedures for contractor access to spaces and the provision of working areas, as well as FBI CJIS security requirements for those personnel.

d. Change management process: Any changes to the deliverables outlined in this SOW or elsewhere in contract documents shall be made in writing and approved by both parties upon the negotiation of the scope of work and compensation as agreed to.

e. Acceptance criteria: The software is deemed completed and accepted at the time the state or FBI certifies that the agency's submittals meet the criteria for error rates and consistency. Services are deemed completed and accepted upon their delivery.