

NATIONAL INFORMATION EXCHANGE MODEL (NIEM)

APPLYING NIEM TO INTERSTATE SHARING: CONSORTIUM FOR THE EXCHANGE OF CRIMINAL JUSTICE INFORMATION TECHNOLOGY (CONNECT)

Synopsis

The purpose of this case study is to highlight the results and application of NIEM to the Consortium for the Exchange of Criminal Justice Technology (CONNECT), an interstate criminal justice information sharing initiative led by the Alabama Criminal Justice Information Center (ACJIC).

Agency Overview

CONNECT is a consortium of five states that have agreed to pool their collective expertise to make interstate information sharing a reality. Project governance is provided by the CONNECT Leadership Team (Leadership Team), which consists of the following individuals:

- Maury Mitchell, Director, Alabama Criminal Justice Information Center
- Gordon Lansford, Director, Kansas Criminal Justice Information Center
- Michael Overton, Chief, Information Services Division, Nebraska Crime Commission
- Fausto Vega, ICJ Project Manager, Tennessee Administrative Office of Courts
- Kevin Smith, Deputy Director, Wyoming Division of Criminal Investigation, Wyoming Criminal Justice Information Section

Although the administration of the project is centered in Alabama, prototyping will be effectively distributed among the states by the Leadership Team to ensure that the goals of CONNECT are best achieved; i.e., to provide the maximum connectivity and information sharing.

ACJIC is a state agency that serves citizens by providing local, state, and federal criminal justice agencies with critical information. ACJIC is the central point of integration for the National Crime Information Center (NCIC) and Nlets—The International Justice and Public Safety Network—within Alabama. It is a resource for law enforcement agencies throughout the state for sharing both information and

Executive Summary

Challenge

Numerous states have recently developed Web-based portals that allow criminal justice officials to search a wide variety of disparate data sets for information that can be used for both tactical and investigative purposes. However, these portals typically involve intrastate data sharing as opposed to interstate sharing.

Solution

The funds appropriated to ACJIC through the National Governors Association (NGA) and a subsequent allocation through the Bureau of Justice Assistance (BJA) via a \$379,000 Byrne Discretionary Grant for Facilitating Justice Information Sharing were used to (1) develop a business requirements document and arrive at consensus as to the optimal approach for moving forward for sharing portal data between states, (2) develop a system design and a development plan based on the consensus, (3) develop several rapid prototype components to provide proof of concept and generate immediate useable connectivity, and (4) ultimately use NIEM standards to define the set of standard data elements for exchange and develop NIEM 2.0-conformant Information Exchange Package Documents (IEPDs) to transmit data for sharing with other states through CONNECT.

Results

Results through July 31, 2008, include the execution of an Interagency Agreement, development of a business requirements document, and the ultimate creation of three NIEM 2.0-conformant IEPDs, including all required IEPD artifacts and publication to the www.niem.gov IEPD Clearinghouse for use by other states. These IEPDs include (1) a driver's license query, (2) a driver's license simple search and return, and (3) a detailed driver's license return. The Interagency Agreement includes a statement of purpose, the scope of the project, individual responsibilities, and an outline for determining the data to be shared and the method for sharing.

technology resources. Its responsibility extends to data collection and processing of incident, arrest, and other criminal justice information. ACJIC's information sharing systems are designed to help law enforcement agencies make good decisions that result in the safety and security of citizens of Alabama. ACJIC also serves as the information technology and information sharing arm of the Alabama Department of Homeland Security and the Alabama Fusion Center.

ACJIC has been a lead agency in the country in the area of public safety and homeland security information sharing, having been highly successful in developing a new Uniform Crime Report (UCR) processing system—the UCR Local Template for Reporting and Analysis (ULTRA)—and in the establishment of a virtual fusion center—Secure Homeland Access and Reporting Environment (SHARE). ACJIC also recently developed two NIEM 2.0-conformant XML exchanges and is prepared to test the electronic data transmission of Alabama's incident/offense (IO) and arrest data to the FBI's N-DEx repository.

Challenge

Numerous states have recently developed Web-based portals that allow criminal justice officials to search a wide variety of disparate data sets for information that can be used for both tactical and investigative purposes. Examples of databases being shared include driver's licenses, drivers' histories, vehicle registrations, corrections inmate records, probation/parole status, community supervision status, warrants, protection orders, hunting/fishing license repositories, and

“Alabama is proud of our participation in the CONNECT Project. The enhanced level of information available to law enforcement personnel resulting from this project will help protect the safety of citizens in Alabama and beyond.”

—Becki Goggins,

*Uniform Crime Reporting (UCR) Program Manager,
ACJIC*



local jail records. While of great assistance to criminal justice and law enforcement officials within the state, the sharing of these capabilities across state lines has been limited to a few individuals who obtain the necessary access credentials. Unfortunately, terrorists and criminals do not operate in just one state, and those who are more sophisticated will take advantage of this obvious vulnerability.

In 2006, CONNECT was organized to facilitate interstate sharing of criminal justice information. A \$25,000 grant from NGA was used to fund two conferences to establish a partnership to enhance criminal justice, homeland security, and public protection through joint technology and information sharing among the CONNECT states.

While much progress was made in establishing CONNECT, the project could not move forward without an effective system design and an implementation plan. These documents are essential, especially in a project that involves the integration of data access across several states, each with its own distinct data systems, security requirements, and search engines. To be effective, the design and planning documents must emanate from the stakeholders themselves. To accomplish this and ensure consensus, the process started with the establishment of an Interagency Agreement and development of a business requirements document. This enabled several alternative approaches to the operational aspects of CONNECT to be investigated and presented to the participating states to arrive at a consensus for the creation of the system design and development plan documents.

The design concepts must be validated with working prototypes to the extent possible for two reasons: (1) to validate the design and development plans so that as the

full-scale project moves forward, it is assuredly based on the most effective current information sharing technologies and (2) to “pick the low-hanging fruit” and generate as much connectivity as possible among participating states to build project momentum. This will provide proof of concept not only for search engine access but also for user authentication and all security issues.

The documented design concepts will be validated by prototyping as many of the components as resources will allow. The selection of the components to prototype will be highly dependent on the impact potential and criticality of each component. Every attempt will be made to allocate prototype development resources in a way that will produce (1) an immediate benefit to the participating states and (2) a long-term proof of extensibility of the technology being employed.

Solution

The funds appropriated to ACJIC through the NGA and a subsequent allocation through BJA via a \$379,000 Byrne Discretionary Grant for Facilitating Justice Information Sharing were used to (1) develop a business requirements document and arrive at consensus as to the optimal approach for moving forward for interstate data sharing, (2) develop a system design and a development plan based on the consensus, (3) develop several rapid prototype components both to provide proof of concept and generate immediate useable connectivity, and (4) ultimately use NIEM standards to define the set of standard data elements for exchange and to develop NIEM 2.0-conformant Information Exchange Package Documents (IEPDs) and transmit data for sharing with other states through CONNECT. IEPDs were developed using IEPDs and other artifacts created by other states with input from subject-matter experts and using established methodology, including UML Modeling, NIEM Contributor Mapping Documentation, sample XML Schema, and development and validation of XML (using Visual Studio and XML Spy).

Results

Results through July 31, 2008, include the execution of an Interagency Agreement, development of a business requirements document, agreement on security standards and network architecture, and creation of three NIEM 2.0-conformant IEPDs, including all required IEPD artifacts and publication to the U.S. Department of Justice IEPD Clearinghouse for use by other

states. These IEPDs include (1) a driver's license query, (2) a driver's license simple search and return, and (3) a detailed driver's license return. The Interagency Agreement includes a statement of purpose, the scope of the project, individual responsibilities, and an outline for determining the data to be shared and the method for sharing it.

Other accomplishments to date include, but are not limited to, the following:

- The selection of Analysts International as the consulting contractor to work in conjunction with the project team.
- Development of relevant documentation of all CONNECT state portals to determine relevant aspects regarding functionality and data availability.
- Completed research of similar efforts to CONNECT (e.g., State, Regional and Federal Enterprise Retrieval System [SRFERS] on the West Coast and the Nlets Interstate Sharing of Photos [NISP] pilot project on the East Coast) to compile information and lessons learned.
- Increased awareness of NIEM and other national standards (e.g., Global Federated Identity and Privilege Management) by representatives from all involved states.
- Three successful consensus conferences to reach agreement involving this project.
- State surveys to gather background necessary for the documentation of the business requirements.
- Completed research and documented alternative implementation approaches regarding tools and services.
- A CONNECT development plan.

Participating Agencies

www.acjic.alabama.gov

www.accesskansas.org/kbi

www.ncc.state.ne.us

www.tsc.state.tn.us

attorneygeneral.state.wy.us/dci