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Solving Real-World Business Problems in the Field: Highlights From BJA's Global Justice Information Sharing Implementations

This document highlights examples of field implementations of the Bureau of Justice Assistance's (BJA) Global Justice Information Sharing Initiative (Global)-recommended solutions, including the Global Reference Architecture (GRA), Global Federated Identity and Privilege Management (GFIPM) framework, National Information Exchange Model (NIEM), and Global's suite of privacy rights and civil liberties-related resources.

These solutions, collectively referred to as the Global Standards Package (GSP),¹ are consistent with the Office of Justice Programs' (OJP) special-condition language that instructs state/local/tribal jurisdictions to leverage BJA/Global-recommended standards to the greatest extent possible.

Of special note: This version of *Solving Real-World Business Problems in the Field* represents only a sample of the good work under way. This is a living document, one that depends on and benefits from practitioners' contributions to keep the material current, comprehensive, and engaging. To that end, please review these highlights with an eye toward contributing additions and updating entries. While the resource focuses on BJA's Global-recommended solutions, complementary justice information sharing (JIS) efforts and partners' activities that leverage fundamental Global tenets (such as collaboration, interoperability, and privacy and civil liberties protections) are welcome. Please make submissions and inquiries to Global@iir.com.

The GSP national standards are used to save time and money. Because these products were developed by the national justice community and evolved in a cohesive manner, they work well together and reinforce one another (see *Diagram 1: Interoperable Global Standards Package Components*).

The GSP includes the following:

- **National Information Exchange Model (NIEM)²**

NIEM helps to eliminate confusion associated with different data definitions across law enforcement and public organizations by providing a common vocabulary to ensure consistency and understanding among state, federal, and local agencies. NIEM is fundamentally based on the original Global Justice XML (EXtensible Markup Language) Data Model (GJXDM), data, dictionary, and

¹ For more on the Global Standards Package, please see www.it.ojp.gov/gsp.

² For more on NIEM, please see <https://www.niem.gov/>.

associated processes sponsored by BJA and governed by the Global Justice Information Sharing Initiative (Global).³

- **Global Reference Architecture (GRA)⁴**

The GRA offers guidance on the design, specification, and implementation of services and related infrastructure for organizations that are looking for an architectural solution to sharing information through external exchanges and common messaging standards between information sharing systems.

- **Global Service Specification Packages (SSPs)**

These are reference services that serve as the means by which the information needs of a consumer are connected with the information capabilities of an information provider. Developers, architects, and service authors are strongly encouraged to refer to the namespace site⁵ when developing Global service specifications.

- **Global Federated Identity and Privilege Management (GFIPM)⁶**

The GFIPM specifications and guidelines are designed to support security controls when accessing justice information systems, based on commonly understood and applied user access control policies.

- **BJA's Global Suite of Privacy Resources**

BJA is proud to play a prominent role in advocating and helping ensure that privacy rights and civil liberties protections are the fundamental cornerstones to justice information sharing efforts. To that end, BJA has provided long-standing support of Global recommended privacy-related solutions to the field.

To support justice agencies in their efforts to implement privacy, civil rights, and civil liberties policies and protections for the information they collect, store, maintain, access, share, and disseminate, **BJA has developed an online privacy resources site at www.it.ojp.gov/privacy** as a road map to guide justice entities through the diverse privacy policy development and implementation solutions. State, local, and tribal (SLT) justice entities come in all sizes, with a variety of roles and with varying degrees of available resources. This site was developed to illustrate an entire suite of products available for every stage of an entity's Privacy Program Cycle, each designed to meet a range of privacy protection needs.

This impressive collection of over 20 complementary solutions has been recognized and commended across the justice and public safety communities as a significant contribution to the field by leaders from DOJ, the U.S. Department of Homeland Security, and the White House.

³ For more on Global, please see www.it.ojp.gov/global.

⁴ For more on the GRA, please see www.it.ojp.gov/gra.

⁵ To access the namespace site, please visit <http://it.ojp.gov/gsp/services/1.0>.

⁶ For more on GFIPM, please see www.it.ojp.gov/gfipm.

The foundation of the series is the [*Privacy, Civil Rights, and Civil Liberties Policy Development Guide for State, Local, and Tribal Justice Entities*](#),⁷ a practical, hands-on tool for state, local, and tribal justice practitioners charged with drafting privacy policies. It provides sensible guidance for articulating privacy obligations in a manner that protects the justice agency, the individual, and the public. Included are drafting tools, such as sample policies and a policy template.

Training is essential to the effective implementation of any privacy policy, and Global's privacy site includes practical training-related resources including solutions to:

- [*Establish a Privacy Officer Function Within a Justice or Public Safety Entity: Recommended Responsibilities and Training*](#)⁸
- [*Respond to First Amendment-Protected Events—The Role of State and Local Law Enforcement Officers Training Video*](#)⁹

Global also recommends technical privacy solutions via the Privacy Technology Framework.¹⁰ This framework is a methodology and a series of tools designed to support defining the data privacy and confidentiality rules and disclosure obligations based on various roles and conditions.

⁷ To access Global's privacy guide, please visit <https://it.ojp.gov/gist/31/Privacy--Civil-Rights--and-Civil-Liberties-Policy-Development-Guide-for-State--Local--and-Tribal-Justice-Entities--Privacy-Guide>.

⁸ This resource is available at <https://it.ojp.gov/gist/165/Establishing-a-Privacy-Officer-Function-Within-a-Justice-or-Public-Safety-Entity--Recommended-Responsibilities-and-Training>.

⁹ This resource is available at <http://it.ojp.gov/gist/128/Responding-to-First-Amendment-Protected-Events-The-Role-of-State-and-Local-Law-Enforcement-Officers-Training-Videos>.

¹⁰ For more on the Global Technical Privacy Framework, please see <https://it.ojp.gov/gist/64/Implementing-Privacy-Policy-in-Justice-Information-Sharing--A-Technical-Framework>. For documentation and for online training, please see <http://www.technicalprivacytraining.org/>.

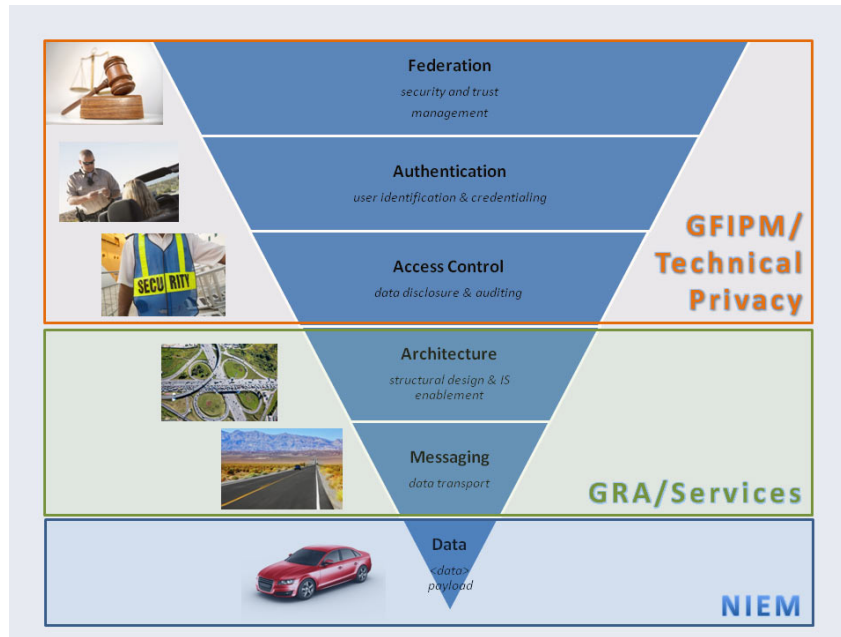


Diagram 1: Interoperable Global Standards Package Components.

The following GSP examples are in various stages of implementation and reuse in the field. For the most accurate status of a project, please contact Global staff at Global@iir.com.

City and County Pilots and Implementations of Global Solutions

- **Hampden County, Massachusetts, Reentry Support**—This project was accomplished with minimal investment by leveraging Global-recommended solutions. It enabled additional expansion through the use and reuse of the Global Standards Package. Specifically, long-standing Global partners, the IJIS Institute, SEARCH, and the Association of Probation and Parole deployed an information sharing capability among the Hampden County Sheriff’s Department, law enforcement and public safety partners, and independent human and social service providers to strengthen the quality and comprehensive support of offender reentry and to support continuity of care, improved public safety, and reduced recidivism.
- **City of Milwaukee, Wisconsin**—This project is a FY 2013 BJA JIS pilot implementation site.

The Milwaukee Frontline Initiative (MFI) is a collaborative effort to reduce gun crimes through coordinated, focused investigations, coupled with prevention and suppression efforts in partnership with Milwaukee Police Department; Bureau of Alcohol, Tobacco, and Firearms (ATF); and regional law enforcement partners. Project success is built on the implementation of information sharing technology solutions that leverage intelligence-led, data driven deployment strategies within the jurisdiction of a major city police agency and its regional partners.

This project employs the following Global-supported goals and approaches:

- Broad scale information sharing around illegal firearms and violent crime—firearms are not limited to any specific jurisdiction or region.
- Intelligence sharing with standardized research components that create violent crime prevention models.
- Information management and visualization with separate layers considering the diverse use within a LE organization: Command, Analyst, Frontline Officer.
- Data sharing framework that is modular so that it is useful and attractive to any LE agency with a need for regional information sharing

Realizing that law enforcement agencies and regional partners use disparate systems to manage information, the MFI successfully navigates nationally-recognized systems (e.g., ATF's *National Integrated Ballistic Information Network* [NIBIN], eTrace, ShotSpotter) against individual agency record management systems. This gives the project application in any region focused on firearm related violent crime. In addition to transportability, benefits and anticipated outcomes include information sharing with officers on the frontline; targeting/linking of suspects based on gun recovery and arrest information; analytic capabilities to help prevent gun-related crimes; and active partnership building.

- **NIEM County Implementation**

- **Pima County, Arizona, Justice-Health Integration Project**
Pima County, Arizona

Like many other jurisdictions across the country, Pima County, Arizona, faces challenges managing offender care and successful reentry into the community as service demands increase and budgets decrease. The Pima County Justice-Health Integration Initiative used NIEM to leverage participating stakeholder information systems, establishing a standard vocabulary so the agencies could share information and translate the content into the language of each system. NIEM's extensibility enabled the project to define medical and behavior health terminology used by stakeholder agencies.

This exchange will promote discharge planning for offenders, improve the efficacy of community care, and subsequently reduce recidivism and associated expense to the community.

This effort went live in August 2014 and will significantly reduce the number of labor-intensive, manual phone calls between medical staff (Correct Care Solutions) at the Pima County Adult Detention Center (PCADC) and the Community Partnership of Southern Arizona (CPSA). The new process will automate the current manual system to determine an offender's behavioral health

treatment history with the regional behavioral health authority (RHBA). Completely automating the system will result in a potential cost savings of \$300,000 and 20,000 hours of personnel time per year. This system promotes the seamless provision of health services within the criminal justice system, and the success of this project reflects a strong interagency partnership among government, nonprofit, and private sector technology agencies.

- **Pennsylvania County Commissioners Association of Pennsylvania (CCAP, Association) Unified Case Management System (UCM)**—Global processes and solutions have been leveraged by CCAP in the development of a UCM. In 2007, as a result of years of the legacy approach of nurturing stand-alone systems, Pennsylvania counties were facing the significant business challenges of inefficient manual data entry, data quality issues, difficulties in using data for management decision making, and inefficient offender processing. Recognizing that quality information is the cornerstone of sound agency decision making, the project first tackled data quality issues. By using the Bureau of Justice Assistance (BJA)-supported solutions, including the National Information Exchange Model (NIEM), CCAP was able to dramatically improve the quality of fundamental data elements (for example, hair color) by 172 percent in the jail CMS, 200 percent in the adult probation CMS, and 232 percent in the district attorney CMS. Turning attention to streamlining efficiencies, CCAP again leveraged BJA-supported solutions, including Global technical and policy recommendations, to develop a centralized CMS that contains a single instance of core offender data, serving as the basis on which additional modules can be built for department-specific needs and requirements. The UCM data model enables automated data exchange among departments and agencies, and between the county UCM and statewide systems—such as the Pennsylvania Court System, Department of Corrections, and Pennsylvania Justice Network—to enhance officer and public safety. Features of this project include the following:
 - Alerts for officer safety, business intelligence, and notification to increase productivity
 - Dashboarding
 - State JNET (Pennsylvania Justice Network) error reporting
 - Data integration with Web services
 - Incident management features

Beyond providing solutions to previously listed business challenges, from a financial perspective, the CCAP UCM has yielded cost savings while simultaneously increasing functionality and generated a unique way to offset county expenses through an optional for-convenience-fee offender Web portal check-in for approved individuals on adult probation. Status as of December 2014: The CCAP UCM project had been implemented in 22 counties (mainly the adult probation module, with many lined up for the district attorney module; jail implementations increased

significantly in the spring). As the effort has progressed, implementation time has been cut by more than half. At this time, the CCAP UCM is approaching statewide coverage, having been implemented in almost every county in some fashion across Pennsylvania.

- **Saginaw County, Michigan**—The city of Saginaw has been one of the top ten most violent cities per capita for the last two decades. This implementation will use national standards to improve cross-system information sharing, enable youth risk/needs assessments, and facilitate better decision making and outcomes for youth in the county of Saginaw. This proposal was submitted by the 10th Circuit Court in Saginaw. The project proposes the design and implementation of a process to develop a comprehensive strategy to gather, share, and use a validated, objective juvenile and youthful offender risk, needs, and strengths assessment system to design cross-system case-planning capability using the Office of Community Corrections, State Department of Corrections, database.

See more at <http://www.ncja.org/advancing-criminal-JIS-TTA/jis-funding-award-announcement#sthash.pKVc1yVv.dpuf>.

State Pilots and Implementations of Global Solutions

- **The Alabama Secure Sharing Utility for Recidivism Elimination (ASSURE)**—

(Note: BJA recognizes the imperative of supporting the implementation of justice information sharing (JIS) solutions, not only to strengthen resources through real-world application and refinement but also to advance capabilities to improve public safety and business outcomes for funded sites as well as other communities through reuse and leveraging of peer expertise. Responsively, in Fiscal Year [FY] 2013, BJA funded sites to pilot JIS solutions, addressing priority problems across the range of topics, often involving partner communities and cross-boundary exchanges. BJA JIS pilot implementation sites will be identified in this report. The ASSURE project is one of those sites.)

This project is using the GSP solutions of GFIPM, GRA, and NIEM to address the following priority justice business problems:

- Lack of information sharing relative to offenders' substance abuse (SA) and mental health (MH) diagnoses and treatment histories among the Alabama Department of Corrections (ADOC), Alabama Board of Pardons and Paroles (ABPP), Alabama Department of Mental Health (ADMH), and community-based SA/MH treatment providers.
- Need to improve access to continuity of care for persons with SA/MH issues for offenders under probation supervision in the community.
- Need to improve access to and continuity of care for persons with SA/MH issues released from ADOC into the community.

By using Global solutions, the ASSURE Project has achieved or anticipates realizing the following successes, improvements, and benefits:

- Developing lawful and effective physical and behavioral health information exchanges between and among law enforcement; public safety; health and mental health providers; human/social services agencies, including substance abuse treatment agencies; and other government and community organizations that need information about individuals involved in the justice system to ensure continuity of care and participate effectively in the pre- and post-adjudication processes without compromising individual rights.
- Increasing the effectiveness and efficiency of the intake and classification process for the community-based MH/SA service providers, ADMH, ABPP, and ADOC by providing access to treatment and supervision records across agency boundaries.
- Reducing reliance on emergency room services by referring people leaving correctional facilities to community-based behavioral health and substance use treatment services and providing clinical information to inform their treatment.
- Ensuring timely access to essential medications for people entering jail or prison by linking correctional health providers to ADMH hospitals and community-based MH/SA service providers.
- Informing behavioral health clients and/or probationers about all insurance affordability programs to improve access to behavioral and physical health care.
- Ensuring timely access to essential medications for persons leaving or prison by linking correctional health providers to ADMH hospitals and community-based behavioral health services.
- Producing more accurate and complete profiles of offenders receiving behavioral health and substance use services through behavioral health services funded through ADMH.
- Producing more accurate and complete profiles of offenders under the supervision of ABPP.
- Producing more accurate and complete profiles of offenders sentenced to ADOC.
- Creating a common, extensible information sharing platform using Global standards.
- Reducing recidivism by helping to ensure that offenders—whether in a community or incarceration setting—receive educational, vocational, rehabilitation, and/or treatment services matched to their individual needs.

- Improving continuity in services provided to offenders as they move between community supervision and incarceration.
- **Hawaii Juvenile Justice Information Sharing**—Submitted by the Hawaii Juvenile Justice Information Committee and supported by the State of Hawaii Department of Attorney General, this implementation will improve juvenile justice information sharing to improve decision making and outcomes for youth. This initiative establishes an Application Programming Interface (API) to modify interfaces of the Kauai County Office of Prosecuting Attorney (OPA) Case Management System and the Maui County Department of Prosecuting Attorney to send and accept NIEM messages for the juvenile justice information system. The API that will be implemented by the prosecuting attorneys on Kauai and Maui will use NIEM.

See more at <http://www.ncja.org/advancing-criminal-JIS-TTA/jis-funding-award-announcement#sthash.pKVc1yVv.dpuf>.

- **Iowa Department of Corrections and Mental Health Exchange**—The IJIS Institute is working with the Iowa Department of Corrections (DOC) to facilitate the capability for this exchange to leverage the Iowa Criminal Justice Information System (CJIS) program to implement real-time, case-specific information sharing between the DOC and community mental health case workers in support of improved reentry outcomes for the at-risk population of returning offenders. The ultimate outcomes are reduced recidivism and improved reentry outcomes for Iowa’s offenders transitioning back to their communities. The bidirectional information sharing between corrections and community-based service providers is key to succeeding in those outcomes. Phase I of this exchange will share diagnosis and current and inactive medication information between the DOC and Eyerly Ball (the community mental health provider treating 60% of the mentally ill offenders released from the DOC). Phase II will include progress notes. State of Iowa project partners include the Governor’s Office, Iowa CJIS, Eyerly Ball (community mental health provider), Office of the Attorney General, Iowa State Legislature, and the Department of Human Services.
- **The Indiana Data Exchange (IDEx) Project**—IDEx, a 21-agency effort partnering under funding of the Indiana Department of Homeland Security, includes local, state, and federal agency participation. Using a range of Global-recommended solutions, including the GRA, the Global Federated Identity and Privilege Management (GFIPM) framework, and the National Information Exchange Model (NIEM), the initiative connects disparate state justice and public safety system data, leverages existing investments for enhanced decision making, and increases public safety. Because the planning, design, and initial capital investment were grant-funded, IDEx exemplifies how a state can use federal support to initiate a project, resulting in immediate and long-term cost savings and efficiencies.
- **Kentucky State Police (KSP) Justice Information Sharing Solutions Implementation Program**—*This project is a FY 2013 BJA JIS pilot implementation site.*

KSP leaders realized that in their Commonwealth, attempts are being made to serve warrants, but unknown to the serving agency, some targeted subjects are incarcerated in local jails or state facilities. Also, individuals who are placed on parole may have warrants issued or be rearrested without their parole officers being aware of such actions. Currently, there is no unified location for criminal investigators to view statewide warrant, police report, and incarceration data. In response, the KSP Justice Information Sharing Solutions Implementation Program is using the Global-recommended NIEM technical solution to address this critical gap. The KSP Project has achieved or anticipates realizing the following successes, improvements, and benefits through the use of Global recommendations:

- Increase in the frequency and timeliness of warrants served on currently incarcerated offenders.
- Identification of parolee behavior that might result in revocation of parole.
- Improvement of criminal investigation by increasing the number of data sources available to the KyOPS user community. (KyOPS e-Warrants is the Web portal for the Commonwealth of Kentucky's enterprise electronic warrant repository.)
- **State of Maine Incident Reporting**—The Maine State Police (MSP) wanted an incident-reporting process that law enforcement could use statewide, and at the same time, the Cumberland County (Portland) District Attorney and the Maine District Attorneys Technical Services (MEDATS) office requested a technical solution to enable the county's law enforcement agencies to electronically refer cases to the district attorney. Through the Maine Justice Information Sharing Architecture Steering Committee, the MSP and MEDATS recognized the commonalities of the two projects and agreed to develop a common information sharing infrastructure to complete both initiatives. This project was a BJA-funded GRA pilot implementation.
- **Multijurisdictional Juvenile Justice Data Sharing Program, 20th Circuit Court (Michigan), Juvenile Services**—*This project is a FY 2013 BJA JIS pilot implementation site.*

In Michigan, the Multijurisdictional Juvenile Justice Data Sharing Program, 20th Circuit Court, Juvenile Services, is using Global solutions to address the current lack of complete, consistent, valid, and timely statewide data on juveniles and the lack of access to health-care and education data necessary to complete juvenile needs assessments. For the juveniles in the system, GRA services are used to help determine the fundamental questions of *who* a juvenile is and *what* his or her current status is; GRA services later will be used to provide health-care and education data for juvenile needs assessments. Using Global technical solutions, practitioners working with Michigan's vulnerable and troubled juveniles will have or achieve access to accurate information with which to make better policy decisions, a scalable juvenile justice information sharing architecture, and preliminary steps toward automation of risk/need assessments.

Project leaders continue to meet with a comprehensive group of interested parties, including representatives from the Michigan Department of Technology, management and budget team, State Court Administrative Office, pilot courts, vendors, and training and technical assistance providers SEARCH and the National Center for State Courts. A great outcome of these meetings resulted in modifications to the Judicial Data Warehouse, providing web services for improved access by courts that use the state's case management system.

- **New Jersey Corr-Stat Information Sharing Solutions Project**—*This project is a FY 2013 BJA JIS pilot implementation site.*

In New Jersey (NJ), a disproportionate number of burglaries—*20 percent of the entire state's burglaries*—are committed in the Corr-Stat region, which represents 27 municipalities aligned along the Route 21 corridor in northeast New Jersey. Currently, there is no automated/formalized way to capture, analyze, and share suspicious criminal/burglary activities within the state, no platform to store data linking burglaries in the Corr-Stat region, and no environment to run this information against other state data sets. This inability to share information easily limits the investigator's universe of data to a single agency's systems and resources, constraining the investigator's field of vision and ability to identify patterns and trends in criminal activity; ultimately, this encourages recidivists and serial criminals to “go mobile” across jurisdictional boundaries to commit criminal acts. Using Global technical solutions, the NJ Corr-Stat Information Sharing Solutions Project will provide investigators with access to the following through one portal and sign-on:

- NIEM RMS data in the localized region
- NIEM corrections data
- Product of a developed “investigative specification”
- Multiquery tool for federated searches across available data sources
- Geospatial analytic tools to organize available data

The ultimate goal is to bridge the burglary suspicious activity reporting (SAR) concept with the NJ Information Sharing Environment (ISE) solution model in the Corr-Stat region into one NIEM-compliant framework, enabling law enforcement officers and analysts to focus on analysis rather than on collecting and collating information. Using an associated GFIPM-based authorization scheme will create a secure, Web-based platform to automatically find connections between the all-crimes SAR and other data such as arrests, shootings, carjackings, and incident information from the police RMSs in Passaic and Essex Counties to help solve burglary cases.

- **NIEM State Implementations**—The following projects won the 2014 Best of NIEM awards. They are powerful examples of the benefits of leveraging a standards-based information sharing strategy to successfully address specific business problems.

- **NevadShared Computer Operations for the Protection and Enforcement II**
Nevada Department of Public Safety, Clark County, Las Vegas Metropolitan Police Department, City of Henderson, City of Las Vegas, City of North Las Vegas

The Shared Computer Operations for the Protection and Enforcement (SCOPE) II is a regional initiative to modernize and replace 35- and 45-year-old public safety legacy information systems.

SCOPE II enables 80 law enforcement and justice agencies at every level of government to share information to provide enhanced 24/7 public safety and justice services. Leveraging a shared repository, including person demographics, descriptors, criminal history, and more, SCOPE II provides agencies with more complete and accurate information. This allows staff members to deliver more effective and efficient public safety services through improved processes and better decision making. The benefits in time savings are estimated to be \$8.3 million per year.

- **North Carolina Families Accessing Services Through Technology**
North Carolina Department of Health and Human Services (DHHS)

The North Carolina Families Accessing Services Through Technology (NC FAST) Program introduces new technological tools and business processes that will enable the North Carolina Department of Health and Human Services and the 100 county social services departments to spend less time performing administrative tasks and more time assisting families.

The use of NIEM helped facilitate the design and implementation of services and message exchanges that are common to HHS services in most states, so they can be reused. This provided other states with the opportunity to reuse and build upon a rich set of message exchanges and architectural frameworks, enabling them to provide enhanced, effective, and efficient services to families.

- **Wisconsin Department of Corrections**
State of Wisconsin

Previously, the Wisconsin Department of Corrections (DOC) shared offender information with the U.S. Department of Justice (DOJ) via batch files once a day. Information was sometimes up to 36 hours old—a risk when law enforcement agencies needed up-to-date information to make decisions on public and personal safety.

With funding from the National Crime Information Center Information Sharing Act and in partnership with DOJ, DOC completed two projects to better identify offenders and share real-time information. Offenders are identified through the synchronization process, which sends fingerprint images taken by DOC agencies to DOJ and DOC at the same time.

Now, DOJ receives all alias names, active offenses, and rules of supervision—data elements that could not have been shared with the old batch files. This improves efficiency for the law enforcement community and saves money for the DOC Monitoring Center and agents, since law enforcement agencies no longer need to call the center for the information.

- **The Interstate Commission for Adult Offender Supervision (ICAOS)/New York State Intelligence Center (NYSIC) Information Exchange Project**—Greater information sharing between law enforcement and community corrections, specifically the exchange of information regarding potentially dangerous probationers/parolees transferring supervision from one state to another, is essential to ensuring public safety. Improved information sharing capability in this area increases situational awareness and helps ensure both community and officer safety. The Interstate Commission for Adult Offender Supervision (ICAOS) leverages the Interstate Compact Offender Tracking System (ICOTS), a nationwide information system, to track all probationers/parolees authorized to relocate across state lines. The intent is not to target formerly incarcerated individuals for inappropriate police action but to alert officers to exercise caution when in circumstances in which interaction occurs or may occur with potentially high-risk offenders.

The U.S. Department of Justice's Bureau of Justice Assistance (BJA), through a cooperative agreement with the American Probation and Parole Association (APPA), implemented an exchange with ICAOS and NYSIC according to the principles of the Global Reference Architecture (GRA) and guided by the Offender Transfer Notification Service (OTNS) specification (v. 1.0). After establishing the transfer of information and debugging systematic technical issues, NYSIC began sharing information with local police departments through its e-mail distribution known as the WIRE (Weekly Information Report and Exchange) in September 2013. More than 100 notifications of potentially dangerous probationer/parolee state transfers were disseminated by the end of 2013—about five to ten notifications per week. The exchange process is straightforward: ICAOS, through ICOTS, provides information on potentially dangerous probationers/parolees to NYSIC. NYSIC, in turn, disseminates this information to local law enforcement agencies.

The result is a one-dimensional exchange of information from ICAOS to NYSIC, which is not required to return any substantive information to ICAOS. Notifications vary in content based on the needs and desires of the fusion center. Currently, the exchange provides data elements to identify the probationer/parolee, including pictures and alias(es), sending state, receiving state, address, gang affiliation, whether the probationer/parolee is a registered sex offender, compact case status, National Crime Information Center (NCIC) code and description, arrival notice, and contact

information for the supervising agency. In the case of NYSIC, the notifications are compiled and disseminated weekly. The exchange was built on the principles of GRA; therefore, it has reusable components that are ready to be deployed with any fusion center. Fusion centers wishing to participate and receive notification simply have to provide a server that allows their systems to receive the OTNS information. From there, each individual fusion center determines how and in what format it wishes to disseminate the information to state and local law enforcement. Alternatively, prospective fusion centers may wish to leverage existing connections through the Regional Information Sharing Systems[®] Secure Cloud (RISSNET[™]) to receive the ICOTS alerts for their states.

APPA, through a cooperative agreement with BJA, can provide technical assistance and support for those fusion centers that wish to participate. One of the requirements to participate in the exchange is a signed memorandum of understanding (MOU) with ICAOS that outlines the roles and expectations of the exchange partners, including appropriate uses of the supplied information.

The ICAOS/NYSIC Information Exchange Project has broader implications: The exchange described in this overview was a pilot project to explore and demonstrate the benefits to fusion centers of receiving and sharing information regarding relocation of potentially high-risk offenders. The initial pilot has been in operation for over nine months, and early feedback from the field suggests that it is a valuable asset. The pilot also clearly revealed that there are many benefits to implementing this type of exchange in a broader law enforcement arena. The exchange promotes public safety, officer safety, and the collaboration of law enforcement with probation and parole agencies; provides information to law enforcement that might not otherwise be known; and has the potential to mitigate potential threats to the communities it serves.

Benefits of the exchange to the field include the following:

- Leverages existing Global standards and resources, including GRA and OTNS service specification v. 1.0
- Utilizes the National Information Exchange Model (NIEM)
- Promotes interoperability
- ICOTS messages can be routed through existing architecture
- Increases sharing of information pertinent to officer safety and awareness
- Encourages communication and partnerships between probation/parole and law enforcement agencies
- Promotes increased probationer/parolee accountability

- **Pennsylvania Justice Network (JNET) “Traffic Stop” Mobile Application**—Traffic Stop, which was released in April 2015, allows Pennsylvania police officers to key in a license plate or driver’s license number and get information from multiple sources, including the state police, the Administrative Office of Pennsylvania Courts, and the Departments of Transportation (DOT) and Human Services. Previously, police officers would have to search six different databases for the same information, which was time-consuming and tedious, not to mention dangerous, for officers and citizens stopped on the sides of busy highways. Now, officers can enter the information once during a traffic stop to find out whether the car is stolen, whether the subject has a warrant or a suspended or revoked license, or whether the subject is associated with a protection from abuse order.

Traffic Stop is hosted on JNET, a secure portal used by criminal justice and public safety professionals to access data from local, state, and federal sources. The application is built on a Global Reference Architecture (GRA) services implementation approach and NIEM data models. JNET’s infrastructure locates and accesses data from agency databases and operates through Pennsylvania’s Criminal Justice Information Services compliant enterprise data center. The data itself is stored on separate agency servers and databases. JNET Executive Director Eric Webb explained that this approach safeguards the information: “It’s actually more secure with us not owning the data. If JNET did have a breach, the intruder is not really touching databases.”

Secretary of Administration Sharon Minnich, whose office oversees JNET, announced, “At no cost to taxpayers, we have created a tool that will increase public safety and allow officers to perform their jobs more effectively. Officers can spend less time looking up information and be alerted sooner to potentially dangerous situations during traffic stops.” Since the April release, officers have conducted more than 47,000 person and vehicle inquiries. Traffic Stop is already yielding successes in the field: Officer Nathan Groft, Carroll Valley Borough Police Department, reported, “The application is amazing. I can run information quicker than a dispatcher. I have already made several arrests for expired and suspended registrations.”

Suggested next steps and enhancements include adding the capability to display “Certified Vehicle Registration” in the vehicle tag search; emphasizing driver suspension, license class, expiration date, vehicle year, vehicle make, and model; and automatically opening the associated PennDOT record as the default.

- **Pennsylvania Justice Network (JNET) Warrant Exchange Services and e-Warrants**—In 2005, at the direction of the Governor’s Office, the Pennsylvania Justice Network (JNET), the Pennsylvania State Police (PSP), and the Administrative Office of Pennsylvania Courts (AOPC) began to develop an electronic warrant (e-Warrant) issuance process for all magisterial district judge and common pleas warrants. This directive was issued in response to concerns that approximately 60 percent of all warrants issued statewide were not being entered into state and federal warrant repositories.

The primary objectives of this project—which leverages solutions and recommendations of the Global Reference Architecture—were to collect, secure, automate, and enter all warrants into PSP’s Commonwealth Law Enforcement Assistance Network (CLEAN) and the FBI’s National Crime Information Center (NCIC) at the time of judicial approval. Through this process, law enforcement personnel benefit in two significant ways: a reduction in data entry at the time of issuance and the knowledge of all active warrants for subjects they encounter. JNET was asked to migrate as much of that functionality as possible to its system components and to assess what changes can be made to improve the rate of successful automated entry of valid warrants data into NCIC and CLEAN.

JNET currently exchanges warrant information between the Administrative Office of Pennsylvania Courts (AOPC) and the Pennsylvania State Police (PSP). The JNET Warrant Exchange service ensures that warrants issued by the state courts are shared with law enforcement through the PSP CLEAN network. PSP CLEAN in turn shares this information with federal repositories including NCIC, the Interstate Identification Index, and Nlets—The International Justice and Public Safety Network (Nlets).

JNET was also awarded a grant from the National Center for State Courts (NCSC), which was seeking state participation in the development of a Warrants and Disposition Management Toolkit. To explore this excellent toolkit, also supported by BJA, please visit <http://www.wdmtoolkit.org/>.

- **Improving Information Sharing Among State Agencies in Rhode Island**—To enhance information sharing and collaboration between criminal justice agency systems and non-justice agencies, BJA provided funding to pilot implementation of reentry information exchanges in three jurisdictions, two at the state level and one at the county level. The purpose of this BJA Corrections Information Exchange for Offender Reentry project was to use Global Standards Package components and guidelines—including NIEM, GRA, and GFIPM—to offer a standards-based approach to improve reentry information sharing between the Rhode Island Department of Corrections (RI DOC) and its partners in employment, human services, and substance abuse and juvenile criminal justice agencies, as well as community-based service providers that play a role in the reentry process. The RI DOC was selected because of the state’s demonstrated commitment to information sharing and reentry innovation. In addition, the RI DOC is a unified system, which means that jails, probation, parole, and state corrections all fall under the purview of the RI DOC, greatly simplifying the challenge of connecting disparate records systems. One valuable outcome of the project was that RI DOC identified a need to improve the offender intake process by using official juvenile criminal history data to inform risk/needs assessments and case planning. RI DOC partnered with the Department of Children, Youth and Families to obtain this information. As a result, juvenile data will feed multiple assessments at the RI DOC, and adult intake counselors can use this information to ask justice-involved individuals about supervision they experienced as youths. Through this project, the RI DOC will be able to design, develop, and implement a set of electronic data-sharing capabilities to exchange information among agency partners about

justice-involved individuals reentering their communities with the goal of improving the chances of successful reentry, reducing recidivism, and cutting corrections costs.

- **Rhode Island**—SEARCH and NCSC are partnering to enable a juvenile criminal history exchange with corrections to feed risk assessments, and they will use the Global Technical Privacy Framework to ensure that this sensitive information is properly protected. It will provide a foundation for overcoming a common barrier in justice to health and juvenile exchanges generally.
- **Connect South Dakota Project**—The goal of this project is to facilitate statewide information sharing among state and local law enforcement, regardless of disparate geographic location or current Records Management System/Jail Management System (RMS/JMS), through a Connect South Dakota hub. To complete the program's goals, this initiative used the GRA, GFIPM, and *Global Privacy Policy Development Guide and Implementation Templates*, as well as NIEM.
- **Tennessee Department of Corrections Reentry Information Sharing for Felon Reentry**—Using components of the Global Standards Package, including the GRA and NIEM, the IJIS Institute developed and is implementing the Corrections Information Sharing (CIS) Service Specification Package (SSP) in the Tennessee Department of Corrections. The goal of this implementation is to ensure that the reentry process for offenders is managed in a way that optimizes technology to deliver time-sensitive data to key decision makers, enabling real-time sharing of data. Importantly, this information supports and enhances reentry, sound corrections decision-making, and evaluation of the effectiveness of the evidence-based programming being provided to offenders in both the institution and community. Partnering Tennessee state agencies are the Department of Correction, Bureau of Investigation, Department of Safety & Homeland Security, General Assembly, and the Criminal Court.
- **Virginia**—This implementation will establish a prototype to share key offender identifier information between the County of Albemarle and the City of Charlottesville to support evidence-based decision making. A proposal was submitted by the Thomas Jefferson Area Community Criminal Justice Board (CCJB) through OAR/Jefferson Area Community Corrections and is supported by several key stakeholders. The CCJB will implement a prototype to share key offender identifier information between the County of Albemarle and the City of Charlottesville to support evidence-based decision making and provide the means to track incidents, individuals, and offenses, which differs from the current, limited practice of using anecdotal evidence. The project will support data integration, which will enable tracking of incidents, individuals, and offenses across the entire criminal justice system, from arrest to sentencing/treatment, while maintaining individual stakeholders' legacy data systems.

See more at <http://www.ncja.org/advancing-criminal-JIS-TTA/jis-funding-award-announcement#sthash.pKVc1yVv.dpuf>.

- **Statewide Automated Victim Information and Notification (SAVIN)**—Victims of crime have an increased vulnerability and have frequently been concerned about protecting themselves from offenders who may have committed crimes against them. To assist these victims, it is essential that they have the capability to access information about their offenders’ cases and statuses. SAVIN implementations take advantage of standards to provide victims with information about court schedules, release and parole dates, and other information that allows them to reduce the risk of repeat incidents and prevent further victimization. The IJIS Institute is currently using the Victim Notification Service Specification Package (VN SSP) to allow agencies and jurisdictions to more quickly, effectively, and efficiently get data to victims. This VN SSP includes data elements and definitions for the exchange of offender information from a criminal justice “notifying agency” system (such as a county jail or a court) to a Victim Notification Provider (VNP) system. In addition to providing for timely status information updates and notification of key events to crime victims, this information sharing standard enables a standardized exchange to be used between notifying agency systems and victim notification systems. Further, via the use of the VN SSP, agencies are able to open up new data sources and provide victims with data that was previously unavailable.

SAVIN implementations have been completed in the following agencies/jurisdictions: the Indiana Supreme Court and the state Department of Corrections in Alabama, Illinois, Indiana, Montana, North Dakota, South Dakota, and Wisconsin Department of Corrections.

- **Alabama SAVIN Implementation**—The IJIS Institute worked with the Alabama Justice Information Center (ACJIC) to implement GRA/NIEM-conformant data exchanges using the Victim Notification (VN) Service Specification v 1.0. ACJIC developed a Victim Notification System (VNS) to provide victims and/or Victim Service Officers (VSO) with the capability to search for information about an offender and register to be notified when a city-, county-, or state-level participating criminal justice agency enters new or updated information about a particular offender. The focus of this SAVIN Technical Assistance Project (S-TAP) implementation was a GRA/NIEM-conformant data exchange between the Talladega County Jail’s Southern Software Jail Management System (JMS) and the ACJIC Jail Information Management System (JIMS), a server-client based JIMS developed by ACJIC for county and municipal jails. This standards-based exchange replaced a daily secure file transfer protocol (SFTP) file with a real-time Web service to provide new, updated, or deleted offender information to JIMS once the data is entered into the Talladega County JMS. JIMS then provides the triggering mechanism to send any new or changed events to the VNS for updates to be shown offender searches and also in the sending of notifications-based, registered-users settings. ACJIC also receives a daily file from the Alabama Department of Corrections (ADOC) updating the records of 30,000+ offenders housed in their facilities. Both the JIMS and the ADOC data are available to the Alabama VNS. The Alabama standards-based exchange was completed between the AL VNS and the Talladega County Jail Management System as of June 2014.

- **Illinois SAVIN Implementation**—The IJIS Institute worked with the Illinois Criminal Justice Information Authority (ICJIA), Illinois Office of the Attorney General, state SAVIN Program lead agency, and Illinois Department of Corrections (IDOC) to implement a standards-based information exchange capability from the Illinois Department of Correction’s new offender management system (Offender 360) and VINE™, the state’s victim notification system (VNS). During this project, the IDOC was undergoing migration from the existing mainframe offender management system to Offender 360 and worked with the IJIS Institute team to engage and deploy a new standards-based exchange using the VN Service Specification v 1.0. Previous SFTP exchanges from the existing mainframe system to the VINE™ system occurred at regular intervals but not as a result of triggering events. The S-TAP implementation created XML data structures and Web services that enable the capability for a GRA/NIEM-conformant data exchange with the VINE™ system based on real-time triggers initiated when new or updated information is provided on an offender’s custody status. The exchanges developed as part of the S-TAP implementation allow for more reliable updates to victims based on the improved capability to share information between the Department of Corrections, Prisoner Review Board (PRB), and Illinois VINE™ System.

The Illinois S-TAP provided a unique and powerful demonstration of multiagency collaboration.

Achieved as of December 2014, completion of the Illinois VN implementation project between the IDOC, Offender 360, and the Illinois VINE™ provides improved access to real-time information to be shared from other partners, such as the Illinois PRB, with victims. It is expected that this project will further enable incorporation of the Illinois PRB into the Offender 360 system with its own module, allowing for additional records, information, and notification to be provided to crime victims in Illinois.

- **Indiana SAVIN Implementation**—Using NIEM, the GRA, and the capabilities defined within the SAVIN SSP, the IJIS Institute is enabling interoperability between the Indiana Department of Correction (IDOC) and Division of State Court Administration’s Judicial Technology and Automation Committee (JTAC), despite the fact that there are two separate vendors supplying Indiana’s SAVIN system and the court management system. This standards-based implementation allows Indiana to leverage BJA’s investment in the development of the SAVIN IEPD and SSP to create interoperability where no information sharing currently exists. Moreover, this enhanced capability ensures the safety and security of victims in Indiana by increasing the types of notifications that they will receive and improving the speed with which other notifications are delivered.
- **Montana SAVIN Implementation**—Since the Montana justice community had already made the decision to adopt NIEM as the standard for information exchanges, when the Montana Department of Corrections (DOC) started a project to exchange information for victim information and notification purposes, it

discovered that the project was not yet defined in NIEM. The work began on the IEPD for exchanging information for victim information and notification data, and NIEM elements were used where they existed and created where they did not. The SAVIN IEPD allowed for the use of standards-based information exchange of DOC data with its Victim Notification System (VNS) service provider for the first time. This standard was later expanded to include parole data as well.

- **North Dakota SAVIN Implementation**—The IJIS Institute worked with the North Dakota Criminal Justice Information Systems (CJIS), North Dakota Information Technology Department (ITD), and Office of North Dakota Courts Information Technology Office to create, test, and implement a standards-based exchange between the North Dakota Judicial Branch’s Odyssey Court Case Management System and North Dakota VINE™, the state’s Statewide Automated Victim Information and Notification system.

North Dakota VINE™ is part of the state’s CJIS program, located within North Dakota’s ITD. North Dakota has a unified court system and includes data from all district courts and several municipal courts. The overall objective of this implementation was to send victim notification-related data from the Odyssey system to North Dakota VINE™, when data is entered, modified, or deleted by court clerks in any county. Previously, data from the Odyssey system was sent to the Victim Notification System via FTP; this implementation of the national Victim Notification (VN) Service Specification v 1.0 improved North Dakota’s process by providing more timely and comprehensive data on court cases, events, and dispositions.

The North Dakota implementation provided a reference implementation of the national VN Service Specification v 1.0, leveraging NIEM and the GRA. Additionally, development and deployment of aggregate services for North Dakota VINE™ helped resolve issues previously reported by victims regarding the receipt of multiple notifications per case per day (some of which were without accompanying context information help determine which notifications were actionable). Aggregate services addressed this issue by providing victims with the most recently updated information and appropriate notification as defined by North Dakota VINE™.

- **South Dakota SAVIN Implementation**—This implementation will enable South Dakota to use the current Connect South Dakota infrastructure to implement a new SAVIN system. A proposal was submitted by the South Dakota Division of Criminal Investigation (SDDCI) with support from the State Administering Agency. Through this initiative, SDDCI plans to use the current Connect South Dakota infrastructure to implement a new SAVIN system to interface 11 local jail management systems using Zuercher Technologies, integrating local JMS data with SDDCI as the information HUB. SDDCI plans to use the SAVIN SSP; the SOA and Web Services using the GRA; and NIEM.

See more at <http://www.ncja.org/advancing-criminal-JIS-TTA/jis-funding-award-announcement#sthash.pKVc1yVv.dpuf>.

- **Wisconsin SAVIN Implementation**—The Wisconsin DOC is planning to use the Victim Notification standard to create a new exchange between its recently upgraded Offender Management System (OMS) and the VNS. This work will allow for expanded information and notification to be provided to crime victims in a timelier manner and with greater efficiency for both the DOC and the VNS.

Multi-State and Regional Pilots and Implementations of Global Solutions

- **Automated Regional Justice Information System (ARJIS) Southwest Officer Real-Time Notification (SWORN) Project**—The SWORN Project leverages Global-recommended standards and guidelines (such as NIEM) to link the California Department of Corrections and Rehabilitation (CDCR) Law Enforcement Automated Data System (LEADS) and U.S. Immigration and Customs Enforcement (ICE) data with ARJIS’s State, Regional, and Federal Enterprise Retrieval System (SRFERS). This information sharing capability has enabled the flow of real-time parolee information between law enforcement and corrections/probation and parole officers wirelessly via Android tablets; integration of facial recognition capabilities, enabling officers to take and wirelessly transmit photos to SRFERS with the tablets, where they are processed against mug shots to accurately and immediately identify subjects (person matching) in the field; and the “pushing” of Be On the Lookout (BOLO) alerts to officers in the field, leveraging the same infrastructure that tracks parolee violations and warrants. It is important to note that ARJIS is the nation’s first instance of Federal Bureau of Investigation Criminal Justice Information Services (FBI CJIS)-approved exchanges using handheld devices.
- **Mid-Atlantic Regional Information Sharing (MARIS) Initiative**—*This project is a FY 2013 BJA JIS pilot implementation site.*

The National Criminal Justice Association (NCJA) is working with State Administering Agency leadership from the states of Delaware, Pennsylvania, Maryland, and the District of Columbia to implement the MARIS initiative using Global tools. NCJA is working with MARIS states to establish governance structure, bylaws, and a participation agreement. In addition, it is partnering with SEARCH to implement GFIPM. Ultimately, these states are expected to share information between their state portals.

Accomplishments to date include the following:

- The Participation Agreement (MOU) was agreed upon by all participants and legal teams and is being executed by the MARIS partners. Through this accomplishment, the governance team was able to finalize the governance bylaws.
- The MARIS technical team has set up a monthly conference all to finalize the federated Service Specification Package (SSP), National Information Exchange Model (NIEM) conformant message, and security trust fabric leveraging Global Federated identity Protection management (GFIPM). These materials are now

under final review. Maryland will serve as the hub for the message transaction. SEARCH is engaged in developing the Web service that will be hosted on the hub and broker the system data exchanges between the partners. This service is developed and in the testing phase.

See more at <http://www.ncja.org/issues-legislation/criminal-justice-information-sharing/recent-JIS-activities#sthash.QHtKcyXA.dpuf>.

- **Open Justice Broker (OJB)/OJB Consortium (Consortium, OJBC)**—Four years ago, the states of Maine and Hawaii adopted the Global Standards Package (GSP) as the technical foundation of their statewide information sharing initiatives. Using the GSP, Hawaii implemented a one-stop query that gives practitioners a single point of access to criminal history, warrant, and firearm registration information. Meanwhile, Maine built automated incident reporting, allowing prosecutors to save personnel resources on data entry of information from police reports and simultaneously allowing agencies to contribute to the FBI N-DEx repository. Subsequently, following GSP guidance, these states have built a subscription-notification capability that allows probation officers to be alerted when supervised individuals have law enforcement contact. Recently, the states of Michigan and Vermont have also joined the Consortium, reusing the technologies originally built by Maine and Hawaii and adding more of their own.

In April 2015, the four states—via the Consortium—released the core components of this work to the public under an open source software license that encourages other jurisdictions to reuse and build on what they have created at very low cost. The Global Information Sharing Toolkit (GIST) toolkit has been instrumental in the OJBC’s development: Without common standards and guidelines, it would be much more difficult for four states to build technologies that “plug together” and enable reuse.

See an excellent blog post on the value of Global to the efforts of the OJBC at <http://www.ojbc.org/ojb-and-global-toolkit/>.

National Pilots and Implementations of Global Solutions

- **AMBER Alert™ Program**—Leveraging Global-recommended standards, this voluntary partnership among law enforcement agencies, broadcasters, transportation agencies, and the wireless industry activates an urgent bulletin in the most serious child-abduction cases. The goal of an AMBER Alert is to instantly galvanize the entire community to assist in the search for and safe recovery of the child.

AMBER Alerts are broadcast through radio, television, road signs, and all available technology referred to as the AMBER Alert Secondary Distribution Program. These broadcasts let law enforcement use the eyes and ears of the public to help quickly locate an abducted child. DOJ coordinates the AMBER Alert program on a national basis. The program is used in all 50 states, the District of Columbia, Puerto Rico, and

the
U.S. Virgin Islands.

As of August 24, 2015, AMBER Alerts have helped save the lives of 772 children nationwide.¹¹

- **Dru Sjodin National Sex Offender Public Website (NSOPW)**—The NSOPW (located at <http://www.nsopw.gov/>) promotes public safety by providing access to currently available public sex offender information from existing official sex offender registries in one location. DOJ recognized the need for communities to have timely and comprehensive access to information on registered sex offenders. As a result, NSOPW was created and, since 2005, has been providing real-time access to sex offender registration information across the country—24 hours a day, 7 days a week. With just one inquiry from a single Web site, anyone can access registered sex offender information for all 50 states, select U.S. territories, the District of Columbia, and certain federally recognized Indian tribes. Many of the states' Web services use NIEM to share information with the NSOPW.

The Dru Sjodin National Sex Offender Public Website:

- Promotes public safety by using existing sex offender information.
- Requires no special certifications, training, or fees for users.
- Maximizes state and local agencies' ability to retain control over their data.
- Provides round-the-clock Website availability with up-to-date information on registered sex offenders.
- Provides comprehensive sex offender information from all participating jurisdictions with one search.
- Allows for a variety of search options—by name, state, county, city, address, or ZIP codes.

Between January 1, 2015, and June 30, 2015, a total of 15,896,198 offender searches were performed on the NSOPW.

- **First Nationwide Officer Safety Event Deconfliction System**—Officer Smith from Anytown Police Department (PD) is working a burglary ring investigation into activities at 123 Main Street, Anytown, USA, and enters his search warrant into RISSafe, the officer safety event deconfliction system operated by the BJA-supported Regional Information Sharing Systems (RISS). RISS leverages Global-supported solutions and practices including standards-based information exchanges (NIEM, the Global Justice XML Data Model) and federated identity and privilege management solutions (GFIPM, NIEF). Meanwhile, Detective Jones from the state police is working a firearms investigation at the same location and enters his arrest warrant into Case Explorer, the officer safety event deconfliction system operated by the Washington/Baltimore High Intensity Drug Trafficking Areas Program (HIDTA). Unbeknownst to Officer Smith and Detective Jones, the Drug Enforcement Administration (DEA) is also conducting an investigation into drug activities at the

¹¹ This statistic was provided from the following source: www.missingkids.com/AMBER.

same Main Street address. The DEA agent enters his surveillance data into SAFETNet, an officer safety event deconfliction system operated by various HIDTAs around the country. Until now, **none of the officers in this scenario would have known that other investigations were concurrently ongoing, even though they entered investigation information into their respective deconfliction systems.** This might not only interfere with investigative efforts; it could also put the officers in potential conflict, causing personal harm or worse.

As of May 2015, thanks to the efforts of the players above, foundational information sharing (and Global) principles such as standards-based exchanges, and the creation of a **Partner Deconfliction Interface (PDI)** among law enforcement information systems, each of the officers involved is now notified of potential conflicts and is provided with officer/detective/agent contact information. The Partner Deconfliction Interface is the first nationwide officer safety deconfliction system, enabling the involved investigators in our scenario to combine and coordinate their collective investigative efforts to create the best and safest strategy for implementation. Last year, more than 350,000 events were entered into officer safety event deconfliction systems by more than 3,500 police agencies. Those numbers are expected to grow as more agencies work to expand their usage of deconfliction systems.

To understand the imperative of event deconfliction, please review *A Call to Action: Enhancing Officer Safety Through the Use of Event Deconfliction Systems*, located at <https://it.ojp.gov/gist/149/Event-Deconfliction-Unified-Message>.

Individual event deconfliction systems were developed over many years by various entities for specific purposes. This is the first time that the three primary systems have been interconnected, thereby creating a virtual nationwide officer safety event deconfliction system where **entry into one system means entry into all systems.**

- **Gang Intelligence Information Sharing**—Gangs nationwide have continued to grow and provide a challenge for law enforcement. While there are efforts locally and regionally to collect and share gang intelligence, there is no national capability to access the data residing in various silo systems across the country. The BJA Gang Intelligence Exchange (GIX) Project is designed to create the capability for law enforcement to access and share the data that resides in various state, local, regional, and federal systems. This project builds on the successes and methodology of previous BJA-funded federated search initiatives to make gang intelligence information from myriad systems available through a single federated search capability. The project used a NIEM Information Exchange Package Documentation (IEPD) as the basis for a Service Specification Package (SSP) to provide access to appropriately credentialed law enforcement officials. In addition to the use of NIEM and the GRA-conformant SSP, the GIX Project used LEXS for early messaging. While the project does not currently use GFIPM, the SSP is GFIPM-ready.

The GIX Project was one of the first to use the NIEM Unified Modeling Language (UML) profile and migrated a NIEM 2.0 IEPD to NIEM 2.1 using the tool.

This project was in limited production in Texas and Indiana. However, all funds were exhausted before pilots were widely implemented in either state. The GIX Project was primarily a collaborative effort between the IJIS Institute and the Institute for Intergovernmental Research (IIR). The IJIS Institute provided project management and industry expertise; IIR was responsible for the development of the GIX portal and integration of the federated search.

- **Interstate Compact Offender Tracking System (ICOTS)**—ICOTS is utilized by states to notify, accept, and exchange information about transferring offenders. There are 300,000 ICOTS users nationwide. Global standards were utilized to develop the system, which allowed the reuse of technology assets across four projects, enabled loosely connected organizations to collaborate, deployed open source software, achieved significant cost savings, and allowed implementation within a few months.
- **Justice-to-Health Exchanges**—Information sharing between the criminal justice and health care communities has the potential to enhance both public safety and health outcomes by reducing redundancies, enhancing continuity of care, and generating efficiencies in both domains. In Phase 1 of this project, 34 beneficial opportunities for interdomain information exchange were identified by a working group of experts from both the health care and justice communities. In Phase 2, the IJIS Institute is working in close coordination with the Global Strategic Solutions Working Group (GSSWG) on prioritization of the high-value exchanges for implementation and with the Global Standards Council (GSC) to develop GRA-conformant SSPs to support prioritizing those high-value justice-to-health information exchanges developed in Phase 1. IJIS will support this effort with technical assistance, develop performance measures and mechanisms to determine whether the exchanges are working as intended, and assess the impact the exchanges have on the processes and outcomes of both the justice and health care systems.
- **Nationwide Suspicious Activity Reporting (SAR) Initiative (NSI)**—The NSI is a partnership among federal, state, local, tribal, and territorial law enforcement that establishes a national capacity for gathering, documenting, processing, analyzing, and sharing SAR information. The development of the NSI represented one of the early implementations of a NIEM-based law enforcement data exchange that leveraged the U.S. Department of Justice’s (DOJ) LEXS. Using NIEM, the NSI program created a common IEPD standard to share SAR data generated by all of the nation’s fusion centers and the U.S. Department of Homeland Security (DHS). The IJIS Institute was successful in convincing leading RMS solution providers to embed the NIEM SAR IEPD into their existing products to improve interoperability between those RMS systems and the deployed NSI information sharing platform.
- **NIEM National Implementations**
 - **The Office of Biometric Identity Management (*formerly US-VISIT*)**—The Office of Biometric Identity Management (OBIM or “Office,” formerly the United States Visitor and Immigration Status Indicator Technology Program, or US-VISIT) supports the U.S. Department of Homeland Security's responsibility to

protect the nation by providing biometric identification services that help federal, state, and local government decision makers accurately identify the people they encounter and determine whether those people pose a risk to the United States. OBIM supplies the technology for collecting and storing biometric data, provides analysis, updates its watchlist, and ensures the integrity of the data. The vision of OBIM is “a more secure nation through advanced biometric identification, information sharing, and analysis.”

Not only does OBIM leverage the Global-recommended National Information Exchange Model (NIEM) for its critical exchanges, the Office is the steward for the Biometrics domain in NIEM. By facilitating the sharing of biometrics information between organizations, NIEM serves as a central element in the coordinated global effort to maintain and refine operations focused on security, intelligence, law enforcement, international trade, travel, and immigration by means of identity management and assurance. The NIEM Biometrics domain provides a platform for the Biometrics and Identity Management Community of Interest to review and harmonize standards and schemas, to provide and receive technical assistance and training, and to communicate and engage across this diverse user group.

The NIEM Biometrics domain was launched in July 2012. Since its inception, members of the domain and key stakeholders have successfully worked to create a framework of best practices to foster collaboration and technical assistance within the biometrics and identity management communities. Through the efforts of domain members, the formal release of NIEM 3.0 in late 2013 contained the first complete biometrics schema within NIEM.

- **U.S. Army Tactical Infrastructure Enterprise Services Coalition Warfare Program**—This project was awarded the 2014 Best of NIEM honor.

The Tactical Infrastructure Enterprise Services Coalition Warfare Program (TIES CWP) used NIEM to improve interoperability and information sharing between the United States and coalition partners. During a June 2014 demonstration, the U.S. Army successfully exchanged position reports, air track information, and observed position reports with coalition partners using NIEM 3.0-conformant messages through a request-response Web service environment. It was the first time this type of information had been exchanged among participants.

The U.S. Army has taken several foundational steps to introduce the NIEM approach to NATO for improving data interoperability among NATO and coalition forces and for demonstrating how NIEM-based data exchange implementations can help fulfill NATO's Federated Mission Networking information sharing requirements.

- **Nlets—The International Justice and Public Safety Network ([Nlets](#))**—Nlets is the primary conduit for the transfer of law enforcement data across the United States. In 2014, more than 1.5 billion transactions ran over the Nlets network, up from 1.03

billion just four years prior, with an average response time of less than a tenth of a second.

Nlets Executive Director and Global Executive Steering Committee Member Steven Correll attributes an important factor in Nlets' longtime success to the implementation of Global standards. "While Nlets has been a mainstay of secure justice exchange across the U.S. and Canada for nearly 50 years, it was the creation and early adoption of Global standards that took our abilities and usage to a whole new level. Each of the advances Nlets celebrates can be traced back to the adoption of Global national standards to leverage new capabilities in information sharing. Opening up new data sets with new partners while passing information previously labelled 'too large' or 'difficult'—such as delivering driver's license photos between states to officers on the roadsides—has certainly made justice and public safety professionals more efficient in their missions."

Among the latest Nlets enhancements are initiatives designed to improve the transfer of relevant photos across the Nlets network as well as data standardization efforts.

- The Targeted Interstate Photo Sharing ([TIPS](#)) initiative enables law enforcement agencies to attach images to administrative messages, "be on the lookouts" (BOLOs), and Amber Alerts. Agencies that are not able to configure their message keys to receive photos can still view incoming images through Photolink, a service that provides a secure Web link to incoming images. Currently, 14 states can send administrative messages with photos over Nlets, and another 6 states are in process.

- Nlets has also been a leader in law enforcement data standardization. Nlets implemented the Global-supported NIEM standard for its Criminal History Information Exchange Format ([CHIEF](#)) project, which facilitates better criminal history reporting and information management by transitioning state rapsheet formats to a standardized schema. The majority of states now format criminal history rapsheets in a version of this standard, and Nlets is in the process of developing additional message key standards to further improve data transfer.

Nlets is governed by its representatives: one from each state and selected federal law enforcement agencies. Nlets staff looks to the membership for direction, working hand in hand with these law enforcement professionals to enhance and improve the transfer of critical law enforcement data.

- **Prescription Drug Monitoring Information Exchange (PMIX)**—The primary program goal of the PMIX is to establish a national interoperability architecture, specifications, and a reusable infrastructure for the secure, reliable, and sustainable interstate exchange of state Prescription Monitoring Program (PMP) data. The PMIX leverages service-oriented architecture (SOA) principles through the GRA to minimize custom development and maximize future agility. The PMIX facilitates the exchange of prescription history reports with other Prescription Drug Monitoring Program (PDMP) systems and authorized organizations using appropriate data and information exchange open standards, defines high-level security requirements for

information exchanges, and provides a PMP interoperability execution infrastructure for security-related functions and exchange-facilitating intermediate hubs. Moreover, using NIEM and the GRA, the project has been successful in connecting PDMPs to create the model and methodology for a true national sharing of data. The RxCheck hub, supported by the IJIS Institute, is the reference implementation of PMIX and—using NIEM and GRA—has successfully established connections with Kentucky, Alabama, Massachusetts, Oklahoma, and Maine.

- **Sex Offender Relocation and Notification Act (SORNA) Interjurisdictional Relocation Service (SIRS)**—SORNA aims to close potential gaps and loopholes that existed under prior law and to strengthen the nationwide network of sex offender registration and notification programs. To facilitate effective information sharing, the SORNA Exchange Portal was created to serve as the mechanism by which jurisdictions’ sex offender registry officials securely communicate with one another. The current exchange portal has limitations in terms of time, cost, and information provided. To solve the current issues, a standard is being developed utilizing the GRA to share sex offender information electronically via a system-to-system exchange, with no manual intervention required.
- **Georgia Tech Research Institute’s (GTRI) Trustmark Pilot**—With support from the U.S. Department of Commerce’s National Institute of Standards and Technology (NIST), Georgia Tech Research Institute (GTRI) is pursuing a pilot in support of the National Strategy for Trusted Identities in Cyberspace (NSTIC). NSTIC is a White House initiative to work collaboratively with the private sector, advocacy groups, and public-sector agencies to catalyze an “identity ecosystem” in which technologies, policies, and consensus-based standards support greater choice, trust, security, and privacy when individuals, businesses, and other organizations conduct sensitive transactions online. GTRI’s pilot project leverages several existing standards and frameworks, including the Global Federated Identity and Privilege Management (GFIPM) standards.

Under the grant, GTRI will develop and demonstrate a trustmark framework that facilitates cost-effective scaling of interoperable trust across multiple Communities of Interest (COIs) within the Identity Ecosystem and enhances privacy through transparency and third-party validation. A trustmark is a rigorously defined, machine-readable statement of compliance with a specific set of technical or business/policy rules.

Trustmarks have the potential to enable wide-scale trust and interoperability within the Identity Ecosystem by helping to foster transparency and widespread operational convergence on the specific requirements for each dimension of interoperability, including communication protocols and profiles, cryptographic algorithms, business-level user attributes for access control and audit purposes, and various levels of policy such as privacy policies and practices. Trustmarks can also reduce the complexity of the Identity Ecosystem’s trust landscape and turn what would otherwise be a collection of poorly interconnected “federated identity siloes” into a more cohesive trust environment. In addition, trustmarks can enhance privacy within the Identity

Ecosystem by helping COIs define clear, concise, and rigorous privacy rules that participating agencies must follow.

The pilot also will build on the National Identity Exchange Federation (NIEF), and GTRI plans to partner with the National Association of State Chief Information Officers (NASCIO) and one or more current NIEF member agencies, such as Los Angeles County and the Regional Information Sharing Systems (RISS), during the implementation phase.

Current trustmark pilots include the following:

- Alabama’s ASSURE Project—This project, highlighted elsewhere in this report, is leveraging the trustmark benefits to create a secure, Web-based portal to share appropriate information regarding clients, probationers, and inmates.
- Los Angeles County Sheriff’s Department (LA SD)—LA SD participants in this pilot list the following as some of the benefits and advantages of the NIEF/trustmark approach:
 - Reuse of identity providers for access to systems and resources including the California DOJ SmartJustice, LA County Criminal History Records System (CCHRS), LA County Sheriff’s Emergency Operations Center, LA Fusion Center, and FBI’s Law Enforcement Enterprise Portal (LEEP).
 - Ensures third-party certification of identity provider/service provider technical interoperability and agency security policies and procedures.
 - Simplifies providing local law enforcement access to LA County shared systems by utilizing distributed federated identity local vetting of authorized users.
 - Improves ability to selectively authorize or deny access to resources at the individual, role, or organization level.
- Nlets Justice Portal—Quick and seamless access to the portal via the NIEF trustmark framework will allow law enforcement, justice, and public safety communities immediate access to all Nlets resources in the event of a disaster.
- Regional Information Sharing Systems (RISS)—Trustmarks will allow RISS and partners to create secure portal identities that can be trusted by information sharing partners who may not be in a structured federation. Information sharing partners will know that RISS credentials are backed by certification in a variety of interoperability criteria that are critical to instilling trust in the law enforcement and criminal justice information sharing environment. RISS anticipates that trustmarks will allow for more secure information sharing partnerships in the future and can be established relatively quickly.
- Texas Department of Public Safety (DPS) TEXMAP Web Mapping Application—TEXMAP provides approved users with access to a variety of data, ranging from secure critical infrastructure and law enforcement data to public data, such as registered sex offender home addresses. A Texas DPS leader noted: “As DPS moves toward enabling more services through federated standards, the

ability to expose these services via the NIEF trustmark framework will allow DPS to better serve the Texas law enforcement and first responder community.”

Follow the progress of trustmark pilots at <https://trustmark.gtri.gatech.edu/trustmark-pilot-results/>.

Field Implementations in Progress

- **BJA’s FY 2014 JIS Implementation Pilot Sites**—Continuing the agency’s commitment to supporting solutions in the field (and the transportability of promising and successful approaches), BJA has funded the following sites’ JIS-related pilot implementations:
 - **Alabama Justice Information Sharing Project**—The Alabama Department of Mental Health and Mental Retardation is focused on enhancing the Alabama Secure Sharing Utility for Recidivism Elimination (ASSURE) data portal (highlighted previously in this report) to allow for information sharing between criminal justice and mental health/substance abuse agencies and providers. The project goal is to create the infrastructure and documentation to participate in a trust system framework that can be replicated.
 - **Essex County (New Jersey) Justice Information Sharing Project**—The Essex County Sheriff’s Office (ECSO) is focused on piloting a project to streamline the office’s current warrant data process. The goals of the project are to implement a two-way interface enabling electronic data transfer and automatic warrant information system updates between state systems and the ECSO warrant system.
 - **Georgia Information Sharing Initiative**—Using Global standards, this project is focused on linking risk/needs data and health data from the state database to a data portal/case management system. The goal is to share pertinent information regarding criminogenic risk, mental health/substance abuse status, and returning citizen needs between the state prison system and local community service boards to support, among other things, better service delivery and reentry success.
 - **Iowa Information Sharing Program**—The Iowa Department of Corrections will build a secure, two-way exchange of information to close the gaps in treatment and provider information and to improve reentry outcomes. The goal is to improve corrections-mental health information sharing to reduce relapse and recidivism by reentering citizens. (Also see the Iowa Department of Corrections and Mental Health Exchange, highlighted earlier in this report.)
 - **Maryland Justice Information Sharing Solutions Implementation Program**—The Maryland Governor’s Office of Crime Control & Prevention will enhance the ability of the Maryland Department of Public Safety and Correctional Services and local jails to share inmate and institutional records across agency and jurisdictional boundaries. The goal of this project is to enable Maryland to link inmate data systems from all state-operated correctional facilities and local jails.

- **North Dakota Justice Information Sharing Solutions Implementation Program**—The North Dakota Office of the Attorney General will create a Statewide Intelligence System that will improve agencies’ communication with other data repositories and allow for a seamless approach to intelligence management. The goal of this program is to create a new system that works in conjunction with the Regional Information Sharing Systems, High Intensity Drug Trafficking Areas, and El Paso Intelligence Center systems.
- **Pennsylvania Justice to Health Information Sharing Initiative**—The Pennsylvania Justice Network (JNET) will improve information sharing capabilities by promoting direct system exchange between laboratories and justice systems within Cumberland County. By using health and justice standards (including a Global Reference Architecture-conformant Web service), the JNET will enable brokered exchanges to reduce the administrative processing time of laboratory results.
- **South Dakota Criminal Justice Information Sharing Initiative**—This project is focused on increasing the capacity for criminal justice information sharing in the state by enhancing two existing projects (previously outlined in this report): South Dakota CONNECT and South Dakota SAVIN.

For the most accurate status of one of the above pilots, please contact BJA Associate Deputy Director J. Patrick McCreary at james.p.mccreary@usdoj.gov.

- **Illinois Department of Corrections Reentry Information Sharing with Counties**—The IJIS Institute developed and is implementing a NIEM- and GRA-based Corrections Information Sharing (CIS) Service Specification Package (SSP) in Illinois. When fully implemented, the CIS will enhance offender reentry strategies for two disparate jurisdictions: Lake County and St. Clair County. Examples of the type of data that will be shared are parolee identifiers, release data, jurisdiction of originating offense, resident address, incarceration history, parole officer information, parole board orders, known medications, mental health needs or addiction concerns, education level, classes or programs completed while incarcerated, and benefits information. These county pilot sites will serve as models for future Illinois expansion statewide and will be used to build automated business processes that can manage the flow of information and activities across systems and applications. Project partners include the state’s Department of Juvenile Justice, Criminal Justice Information Authority, Lake County Sheriff’s Office, Rockford Police Department, Administrative Office of the Courts/Probation, Attorney General’s Office, St. Clair County State’s Attorney’s Office, Illinois Association of Chiefs of Police, General Assembly, Illinois State Police, Illinois Framework (enterprise governance body), Prisoner Review Board, Treatment Alternatives for Safe Communities (TASC), and the Office of Governor.
- **New Jersey Information Sharing Environment (NJ-ISE)**—The NJ-ISE initiative is designed to provide law enforcement, public safety, and private sector communities

with the information they need to better understand their environments—including threats and hazards—and, more appropriately, to allocate the resources at their disposal. Utilizing NIEM, GFIPM, and the GRA, the NJ-ISE is moving toward a production environment to fuse information from multiple sources and unlock information systems from participating stakeholders at all levels of government, making the systems accessible to trained analysts, facilitating a more comprehensive crime picture (including threats and hazards) on a local, state, regional, and even national scale. This information then can be shared with field officers, investigators, and chief executives, enhancing the overall public safety efforts related to violence reduction, crime control, counterterrorism, and emergency operations.

Accomplishments to date include the following:

- Secure access to information for participating agencies, utilizing the project’s collaboration platform, is being offered.
- The foundation for providing network, data, and application services in a trusted environment has been established.
- All requirements to push the criminal suspicious activity reporting (SAR) information into the collaboration platform, as well as initial interface design review sessions, have been completed.
- Test runs utilizing XML SARS have been completed.
- Advancements have been made to the collaboration portal capabilities, including connecting to Passaic County and added Passaic and Bergen County Corrections data, and the addition of New Jersey Department of Corrections data is imminent.
- **National Prison Rape Elimination Act (PREA) Data Standard State Implementations**—Once implemented, the consensus-based National PREA Data Standard will enable the effective and efficient collection and sharing of PREA-related information by using the components of the Global Standards Package (GSP). It will also eliminate the need for manual collection of PREA data and enable automated reporting by extracted PREA elements from a state’s offender management system, providing administrators with a more timely and comprehensive report. The National PREA Data Standard will capture all the data elements contained in the Bureau of Justice Statistics (BJS) Survey of Sexual Violence (SSV),¹² providing the capability for the state to automatically generate the associated form, saving significant time and resources. The National PREA Data Standard will also help correctional administrators address conformance with PREA-related processes, data collection, reporting, sharing, and privacy. The IJIS Institute will measure the impact of the PREA data standard six months after implementation. Following are PREA field implementations in progress:

¹² The Survey of Sexual Violence (SSV) is part of the BJS National Prison Rape Statistics Program to gather mandated data on the incidence and prevalence of sexual assault in correctional facilities under the Prison Rape Elimination Act of 2003 (PREA; P.L. 108-79).

- **Arkansas Department of Corrections PREA Data Standard Implementation**—The IJIS Institute is implementing a PREA data standard in the state’s offender management system. The data standard was developed with guidance from a work group consisting of representatives of key national organizations, including the American Correctional Association, American Jail Association, American Probation and Parole Association, Corrections Technology Association, International Association of Chiefs of Police, Council of State Governments Justice Center, PREA Resource Center, National Institute of Corrections, Bureau of Justice Assistance, and practitioner advisors from six state departments of correction (Arkansas, Iowa, Minnesota, Montana, Mississippi, and New Mexico). The work group identified critical PREA data elements to improve overall information sharing, data analysis, and data quality for effective and efficient information sharing for PREA-related events. The IJIS Institute will measure the impact of the PREA data standard six months after implementation in Arkansas.

- **Iowa Department of Corrections PREA Data Standard Implementation**—The IJIS Institute is implementing a PREA data standard in the Iowa Department of Corrections’ offender management system. The data standard was developed with guidance from an advisory board of members from key national organizations who identified critical PREA data elements to exponentially improve overall information sharing, data analysis, and data quality for effective and efficient sharing of information associated with PREA-related events. The work group included representatives from the American Correctional Association, American Jail Association, American Probation and Parole Association, Corrections Technology Association, International Association of Chiefs of Police, Council of State Governments Justice Center, PREA Resource Center, National Institute of Corrections, Bureau of Justice Assistance, and practitioner advisors from six state departments of correction (Arkansas, Iowa, Minnesota, Montana, Mississippi, and New Mexico). The IJIS Institute will measure the impact of the PREA data standard six months after implementation in Iowa.

- **New Mexico Corrections Department PREA Data Standard Implementation**—The IJIS Institute is implementing a PREA data standard in New Mexico’s offender management system. The data standard was developed with guidance from an advisory board of members from key national organizations who identified critical PREA data elements to exponentially improve overall information sharing, data analysis, and data quality for effective and efficient sharing of information associated with PREA-related events. The IJIS Institute will measure the impact of the PREA data standard six months after implementation in New Mexico.