

TESTIMONY OF

Donna M. Roy
Executive Director, National Information Exchange Model
Executive Director, Information Sharing Environment,
Office of the Chief Information Officer
U.S. Department of Homeland Security

Before the
House Committee on Ways and Means
Human Resources Subcommittee

April 19, 2012

Chairman Davis, Ranking Member Doggett, and Members of the subcommittee, thank you and good morning. My name is Donna Roy, and I am the Executive Director of the Information Sharing Environment within the Department of Homeland Security (DHS) Office of the Chief Information Officer. I also serve as the Executive Director for the National Information Exchange Model (NIEM) program, a position I have had the privilege of holding for the past three and a half years. This testimony will provide an overview of NIEM, explain the NIEM structure and governance, and discuss select examples of how federal, state, local, tribal, and territorial governments use NIEM to share critical information. Most importantly, I will discuss how government can utilize NIEM to enhance mission performance and gain efficiencies.

What is NIEM?

First, allow me to explain what NIEM is and why it is so important. NIEM is a federally-supported, government-wide initiative that helps communities of people with common mission interests connect and exchange information in order to successfully and efficiently accomplish their missions. NIEM is not a system or database; nor does it transmit, store, or otherwise engage in operational data sharing. Rather, NIEM provides the tools, training, and

community-driven support needed to assist users in adopting a standards-based approach to exchanging information.

NIEM makes it possible for organizations at several different levels and jurisdictions to share critical data, empowering individuals to make informed decisions that improve efficiency and help advance missions goals. In my opinion, NIEM is an example of government collaboration at its best.

NIEM was originally created as a best practice at the state, local, tribal, and territorial levels of government with funding received primarily from the U.S. Department of Justice's (DOJ's) Bureau of Justice Assistance (BJA). NIEM was founded to address the need for quicker access to accurate, complete, and actionable information to enable better decision making. In the business of government, informed decisions can translate into saving time, taxpayer money and, most importantly, lives.

Whether the situation involves protecting citizens, responding to disasters, promoting public health, identifying welfare assistance eligibility, or providing needed support services to children and their families, effective decision-making requires information that often must be exchanged across a broad landscape of systems, agencies, and jurisdictions. Citizens, government partners, and practitioners need access to the right information, in the right format, at the right time to do their jobs effectively. The challenge is clear: how do we connect, with an appropriate policy framework and security model in place, the wide array of systems operating across the whole of government?

NIEM is designed to enable government to address this problem. By providing a common vocabulary and mature framework to facilitate information exchange, NIEM enables diverse communities to “speak the same language” as they share, exchange, accept, and translate information efficiently.

Instead of seeking nationwide integration of all local, state, territorial, tribal, and federal information systems, NIEM focuses on the development of shared services using cross-boundary information exchange across multiple levels of government. In this way, NIEM breaks down agency stovepipes and creates the opportunity for agencies to share information quickly and effectively without rebuilding systems. All 50 states and 18 federal agencies (as of March 2012) are committed to use NIEM in some capacity and at differing levels of maturity.

Because of its unique approach, NIEM does not require building a new system or purchasing new technology. NIEM is technology agnostic and addresses the format of data as it is shared between systems. This allows communities of interest to collectively leverage NIEM irrespective of the particular technologies used within any individual organization. This approach enables federal agencies to keep systems compartmentalized and ensure appropriate safeguards while at the same time wrapping them with a set of standardized exchanges, an appropriate policy framework, and an appropriate security model. The end result is that stakeholders at all levels are able to put information out and receive information into their existing systems, enabling the flow of information across levels and jurisdictions.

NIEM Governance

Next, I would like to explain the structure and governance of the NIEM program. The NIEM program is supported by a joint program office that is administratively housed within DHS's Office of the Chief Information Officer (CIO). The program office receives strategic direction from an Executive Steering Council (ESC) made up of the CIOs from DHS, DOJ, and Health and Human Services (HHS), as well as voting members and ex-officio members consisting of representatives of the Program Manager-Information Sharing Environment, the Office of Management and Budget eGovernment program, the Global Justice Information Sharing Initiative, and the National Association of State Chief Information Officers.

The NIEM Program Management Office (PMO) is the operational arm for NIEM. The NIEM PMO executes the vision of NIEM established by the ESC while managing NIEM's day-to-day operations. The PMO coordinates with communities of interest, principal stakeholders, and other information sharing and exchange initiatives to promote collaboration and interest in NIEM priorities.

To carry out its mission, the NIEM PMO receives support from a framework of three national committees, comprised of stakeholders from various levels, that provide community consensus recommendations to ensure the program responds to the requirements of a broad stakeholder base consisting of federal, state, local, tribal, territorial, international and private sector partners. The three committees are the NIEM Communications and Outreach Committee, the NIEM Technical Architecture Committee, and the NIEM Business Architecture Committee. Each committee is supported by one full time staff member in the PMO, and each committee provides essential

guidance to NIEM practitioners.

First, the NIEM Communications and Outreach Committee is responsible for recommending approaches to increase the effectiveness of outreach to the stakeholder community, ensuring the NIEM training curriculum is effective and appropriate, and engaging stakeholders at various forums as appropriate. The NIEM Communications and Outreach Committee is currently chaired by the Director of the Alabama Criminal Justice Information Center.

Next, the NIEM Technical Architecture Committee (NTAC) is responsible for defining the technical architecture that governs NIEM. The committee is led by two co-chairs from the DOJ CIO, and SEARCH, The National Consortium for Justice Information and Statistics. NTAC members are key stakeholders and representatives of engaged Communities of Interest (COIs). The member may represent operational practitioners and subject matter experts, key stakeholder agencies, domains, COIs, and systems developers across all levels and branches of government, as well as solution providers.

The primary mission of NTAC is to define the technical and structural architecture associated with NIEM development and implementation. NTAC develops, implements, and maintains the technical specifications for the NIEM community. In addition, NTAC is responsible for ensuring robust and effective development of the NIEM core structure and complementary processes to support and enable users to efficiently develop, use, and reuse NIEM-conformant model package description components.

Finally, the NIEM Business Architecture Committee guides the development, harmonization, evolution, and implementation of the NIEM core data components and operating processes from a business architecture perspective. It seeks to meet the operational needs of stakeholders and really drive NIEM value. Today, the NIEM Business Architecture Committee is co-chaired by representatives from the State of Missouri and NLETS, the International Justice and Public Safety Network, headquartered in the State of Arizona. The committee itself is composed of representatives from each of the 14-plus mission areas or “domains.” It is through these domain representatives that data content is contributed, harmonized and evolved to meet common needs across all mission areas. Domain representatives are charged with ensuring the NIEM model is developed in a manner that supports information exchange within the community and encouraging reuse across communities.

Each of NIEM’s domains is supported by a Community of Interest that is representative of federal, state, local, tribal, territory, or private sector stakeholders. The NIEM Business Architecture Committee is also working to assess appropriate international representation into several of the domains in support of the Beyond the Border initiatives between the United States and Canada. Currently, NIEM serves the following domains:

- Biometrics;
- Children, Youth, and Family Services;
- Chemical/Biological/Radiological/Nuclear;
- Cyber Security;
- Emergency Management;
- Health;

- Human Services;
- Immigration;
- Infrastructure Protection;
- Intelligence;
- International Trade;
- Justice;
- Maritime; and
- Screening.

NIEM's business-oriented governance and implementation methodology both increases transparency and efficiency. In addition, since NIEM developers nationwide follow the same methodology, they can borrow from and reuse each other's work. This helps to reinforce the national collaborations that strengthen NIEM's governance structure. Because the Extensible Markup Language data model is composed of data components that cross sectors, functions, and geographic boundaries, it enables users in one jurisdiction, organization, or agency to reuse and build upon solutions developed in a different one. This reusability of the data components reduces the design and development time needed to build new solutions.

NIEM in Action

The NIEM value proposition is being demonstrated every day across the country to address compelling social issues such as health, human, and social services; improve public safety; and strengthen homeland security. I would like to share a success story in New York City (NYC).

With an estimated population of 8.1 million, NYC is one of the most densely populated cities in the United States. ACCESS NYC, a free website and online tool developed by the NYC HHS “HHS-Connect project,” allows users to apply for more than 35 city, state, and federal human service benefit programs, search for office locations, and create pre-populated application forms.

An overarching theme of the NYC HHS-Connect project was to enable information sharing among disparate NYC agencies. A challenge seen in many different HHS-Connect projects was ensuring that previous and potential point-to-point data transfers were implemented such that additional agencies could participate with minimal rework through use of existing data assets. NIEM made this possible by allowing the same information exchange to be used for the transfer between HHS and the U.S. Department of Education (ED), as well as between HHS and the NYC Department of Social Services, Human Resources Administration (HRA).

This functionality is dependent on a data exchange between ACCESS NYC and a several external systems, specifically a third-party vendor the NYC Department of Education uses to process its School Meals paper applications. To satisfy the need for standards, consistency, and incremental growth, the city adopted NIEM as a foundation of the NYC Health and Human Services solution.

In order to make use of the strong foundation already provided by NIEM, several health and human service data components were created to extend NIEM to support their data exchange requirements. Today, the ACCESS NYC service is available online.

The most significant benefit of using NIEM for this project was the creation of “common” NIEM extensions that were used across all NYC HHS-Connect projects. For example, the data component extensions created for the School Meals information exchange are also being used for the NYC HHS-Connect Worker Portal exchanges. In addition, a second request for School Meals data from the HRA was implemented using the School Meals exchange previously noted.

Another related result of this information sharing initiative was the creation of an internal SharePoint site for discussing any NIEM experiences within NYC government. This enables NYC government agencies to collaborate and share information about the use of NIEM and host lessons learned about NIEM applications from which other government agencies can benefit.

On the federal level, the HHS’s Administration for Children and Families (ACF) recently signed an agreement with the NIEM program to steward the development and maintenance of a Human Services domain to support the sharing and exchange of NIEM conformant information across the Human Services community. Key stakeholders in this community include human service providers, both government and non-profits, at the state and local level, federal human service agencies both in and outside of the ACF, human service associations, universities, and court systems and judges. Some of the initial areas the Human Services domain is looking to develop exchange information for include the following:

- **Child Welfare to Homeless Services Exchange:** A family involved with the child welfare system in a given jurisdiction enters the homeless service system. Upon entry, workers in both systems would be alerted and could maintain family services and insure the safety and well-being of the involved children.

- **Income Verification Exchange and Assistance Eligibility Exchange:** A single mother loses her job which, she believes, makes her eligible for some local, state, and/or federal benefits. She doesn't know which. Rather than visiting each office individually in-person (food and nutrition services, housing assistance, cash assistance, heating/energy assistance, child care, etc.), she can now go to one central location and, through an income verification and other exchanges, receive real-time information about and apply for the benefits to which she and her family are eligible.

This work will build on and complement the existing Children, Youth, and Family Services domain sponsored by the Department of Justice, which also seeks specifically to support the needs of those most vulnerable in our society – children and the families that support them. With the support of DOJ BJA and DOJ Office of Juvenile Justice and Delinquency Prevention (OJJDP), the domain brings together the youth and family services, juvenile justice, and the courts communities to comprehensively address the needed services of children and their families, particularly those involved in the justice system. An example issue that will be addressed is:

- **Criminal and Child Abuse to Child Care and Foster Parent Licensure Agencies Exchange:** Obtaining background checks for prospective foster parents is time consuming and, in many states, only yields criminal background or abuse and neglect data on that one state. There are similar issues with the hiring of staff to provide childcare services in childcare centers or in private homes. An exchange that expedited the sharing of information between the providers and a national criminal and child abuse and neglect database would allow appropriate foster parents and childcare providers to be licensed and

would reduce the number of inappropriate licenses issued, better protecting children from potentially harmful situations.

The NIEM Human Services domain, together with the Children, Youth, and Family Services domain, will improve both the use of limited resources and the services provided to children and families. It will support the human service community and the larger NIEM community by making data exchanges discoverable, understandable, accessible, and reusable across multiple partners. We anticipate that NIEM will continue to contribute to interoperability in these domains.

NIEM is also being employed to combat the growing threat of prescription drug abuse. Most states now operate – or are preparing to operate – prescription monitoring programs that track prescription drug dispensing data across pharmacies, hospitals, and other dispensaries. However, the challenge lies in sharing this data across state lines with other state monitoring programs, leaving the door open to cross-border doctor shopping and illicit drug use.

With the support of the BJA, and working with federal agencies such as HHS, Drug Enforcement Administration, and Office of National Drug Control Policy; the states; and private industry groups such as IJIS, an effort was begun to define a nationwide approach to sharing prescription drug data across state lines using a standardized, NIEM-based approach. This approach was tested by state leaders in Kentucky (Kentucky All Schedule Electronic Reporting System, or KASPER) and Ohio (Ohio Automated Rx Reporting System, or OARRS), two states that share a border and have been hit especially hard by the problems associated with drug abuse. Interstate data sharing solutions being implemented today fully leverage NIEM as the standard for data

exchange. Using a common data format will assist states in avoiding costly rework or having to develop interfaces with multiple systems in order to share with other states. It is worth noting that this approach will not require any state to significantly modify its internal systems, processes, or procedures to participate in the information exchange.

This effort represents a significant success for NIEM for a number of reasons, but perhaps most importantly; it connects practitioners across the health, regulatory, and law enforcement communities to address common challenges. NIEM enabled a standardized data model for sharing prescription dispensing data, but it also allowed for the implementation of specialized access control rules that account for each state's unique legislative and policy environment.

Therefore, no protected health information is ever shared with anyone that does not have both the legal right and the business need to view that information. Ensuring the privacy of citizens who are involved in the healthcare system was the top priority of the project, and it was made possible through the use of information sharing tools like NIEM. NIEM was also designed specifically to enable the type of cross-agency and cross-jurisdictional sharing that occurs frequently in the prescription monitoring environment; therefore, the success of this effort is seen by us all as a success for the NIEM program.

It is important to note that the NIEM process does not inhibit or restrict compliance with appropriate Privacy, Civil Rights/Civil Liberties and Security policies, Laws and/or regulations. The NIEM process allows the flexibility for organizations to comply with their applicable laws, regulations and policies for the protection of data. The NIEM PMO has elevated the best practice used by many organizations in implementing NIEM which encourages a dialogue with

privacy and civil liberties oversight officials to define and identify specific data elements that should be afforded increased protection in the implementation process.

Conclusion

In the difficult fiscal times facing government today, it is core systemic improvements that will save scarce financial resources, improve the effectiveness of government and, ultimately, make our country safer. NIEM is one of these rare systemic improvement opportunities.

Today, April 19, 2012, NIEM is seven years old. On April 19, 2005, the CIOs of DOJ and DHS signed a Memorandum of Understanding to establish the interagency program, bringing to fruition the work done at the state and local level of government to build a national model for sharing information. Through years of maturing and improving, NIEM is now recognized and used by international partners such as Canada, Mexico, and member countries of the European Union. While it is true that NIEM was developed in the United States for use by those in the United States, it is highly adaptable and scalable to programs of all size and scope. NIEM can and does enable a wide variety of partners to share information, irrespective of borders.

I have a sincere passion for good government, and I am energized by how NIEM helps break down the institutional barriers standing in the way of it. On a more personal note, as a previous foster mom, I am particularly touched by the positive changes NIEM is making in the lives of the most vulnerable in our society – children and the families that support them. The information exchanges fostered by NIEM practitioners help streamline the administration of government services, increase transparency, and reduce waste and inefficiency with a proven, cost-effective

solution. I look forward to discussing further how the NIEM program can continue to drive real improvements in effectiveness and efficiency in government operations and services.