



DHS Realizes NIEM Successes

The National Information Exchange Model (NIEM) initiative was launched in 2005 as a partnership between the U.S. Department of Justice (DOJ) and the U.S. Department of Homeland Security (DHS) to address Homeland Security Presidential Directive HSPD-5 on information sharing.

Much of the publicity that NIEM has received has been focused on the justice and law enforcement domain. It would appear at first glance that DHS had fewer successes with NIEM; however, nothing could be farther from the truth.

Donna Roy, executive director of the NIEM Program Management Office and director of the Enterprise Data Management Office with the U.S. Department of Homeland Security, recently noted that "DHS has had a variety of successes with NIEM and at the same grand level that N-DEx has been for the Department of Justice. Over 35 percent of the major IT Programs in DHS are working on implemented standardized information exchange using NIEM, with an expected increase to 60 percent by the end of 2009. Major drivers for adoption at DHS include requirements of all new IT programs and modifications to existing programs to use NIEM, based on the DHS-wide System Engineering Lifecycle. NIEM is working for DHS, and we will continue to both use NIEM and support the use of NIEM in federal, state, tribal, and local information sharing initiatives."

In his testimony to Congress on July 23, 2008, Charles E. Allen, Under Secretary for Intelligence and Analysis, Chief Intelligence Officer, Department of Homeland Security, noted the following:

"In the last twelve months DHS has dramatically increased its adoption of the National Information Exchange Model (NIEM). NIEM is a data standards management initiative co-sponsored by the Departments of Homeland Security and Justice with extensive participation by State and local stakeholders. The implementation of the NIEM standard in an information technology (IT) system enables data to be translated into a common language and shared more easily with other IT systems. This effort is essential because without data standards, system-to-system data exchanges are often difficult, both within agencies and with external partners. Data standards like NIEM not only enhance our ability to connect the dots that exist in numerous IT systems, they also enhance our ability to categorize data and ensure appropriate user access and usage in accord with privacy and civil liberties rules."

The following projects show how some component departments of DHS are realizing opportunities through NIEM adoption within major IT investment programs.

U.S. Citizenship and Immigration Services (USCIS)—E-Verify



The Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) mandated that employers verify the employment eligibility of newly hired employees. Employers needed a fast, nonburdensome mechanism to obtain this information about employment eligibility to reduce unauthorized employment, minimize verification-related discrimination, and protect civil liberties and employee privacy. A partnership was formed between DHS and the Social Security Administration (SSA) to rise to this challenge. The agencies created a tool called E-Verify, which is an Internet-based system jointly administered by DHS through USCIS and the SSA. It allows participating employers to determine whether newly hired employees are authorized to work in the United States by verifying the information provided by the employees on Form I-9 against more than 449 million records in the SSA database and more than 60 million records in the immigration databases managed by DHS components, including Customs and Border Protection, Immigration Customs Enforcement, and USCIS. E-Verify is a system that facilitates information sharing with DHS components, external agencies, and the private sector. It supports the DHS standard for development of information exchange using the National Information Exchange Model (NIEM), adoption of Information Exchange Package Document (IEPD) development process, and deployment of NIEM-compliant Service Oriented Architecture (SOA) service. The use of NIEM strengthens USCIS' ability to share information based on standardized data element names and definitions. The publication of NIEM-based IEPDs in the DHS Data Architecture Repository also enhances the discovery and reuse of information exchange.

Federal Emergency Management Agency—Homeland Security Exercise and Evaluation Program

The Federal Emergency Management Agency (FEMA) is using NIEM for several components of the Homeland Security Exercise and Evaluation Program (HSEEP). The National Exercise Scheduling System (NEXS) is the nation's comprehensive online scheduling tool that is available to first responder, emergency management, and homeland security communities at the federal, state, tribal, local, and private sector levels. NEXS facilitates scheduling, conflict resolution, and synchronization of all exercises. Another component of the HSEEP is the Corrective Action Program (CAP) System, which is a Web-based application allowing homeland security officials to track, prioritize, and analyze corrective actions following exercises or real-world events. CAP enables users to quickly enter data from a finalized After Action Report (AAR), track the progress of corrective action implementation, and analyze and report on trends in improvement plans. For both NEXS and CAP, NIEM-conformant IEPDs were developed for the variety of information exchanges that occur within and among the various systems and elements involved in the HSEEP.

Domestic Nuclear Detection Office —Southeast Transportation Corridor Pilot

The Domestic Nuclear Detection Office (DNDO) in coordination with DHS/Customs and Border Patrol is providing NIEM-based information exchanges with state and local entities, to include those that successfully participated in an interstate radiation detection information sharing effort—the Southeast Transportation Corridor Pilot Program.



DNDO is a jointly staffed, national office established to improve the nation's capability to detect and report unauthorized attempts to import, possess, store, develop, or transport nuclear or radiological material for use against the nation and to further enhance this capability over time. The department's continuing Southeast Transportation Corridor Pilot (SETCP) deployed radiation detection systems at interstate weigh stations throughout the Southeast Corridor to detect and interdict illicit nuclear and radiological materials on the nation's interstate highways.

DNDO implemented the pilot program to develop and demonstrate a regional concept of operations, including alarm resolution protocols, and to enhance regional communication infrastructure and collaboration for information exchange.

Other Projects

There are a variety of other NIEM initiatives within the DHS, including:

- The DHS Law Enforcement Information Sharing Services initiative has also deployed information sharing technologies and operating policies supporting information sharing between ICE and local law enforcement agencies in Seattle, Washington; Laredo, Texas; and Los Angeles, California.
- DHS is further using NIEM to develop the next version of the Common Alerting Protocol, a simple, general format for exchanging all-hazard emergency alerts and public warnings over different networks. This capability provides valuable analytic inputs into the ISE-SAR and alerts, warnings, and notifications (AWN) processes with emerging patterns derived from local warnings that might indicate undetected hostile acts.
- Customs and Border Patrol (CBP) is using NIEM in a variety of information exchanges, including vetting of individuals applying for naturalization and sensitive positions, processing of trucks arriving at borders, information sharing between CBP and ICE, security of containerized cargo and data exchanges with Census, and exchanges with the Food Safety Inspection Service.
- NIEM is also developing a standard for interoperability between Emergency Operations Centers in a number of state and local communities that will be an important part of connectivity efforts between collocated fusion centers and the ISE.

More information will soon be available on several of these projects in upcoming NIEM Adoption and Use Case Studies, which are located at www.niem.gov.