

Data Sharing

Georgia Tech assists U.S. government agencies with National Information Exchange Model.

BY JOHN TOON

Imagine a situation in which emergency medical, fire, law enforcement and hazardous materials personnel respond to an emergency — only to find that they all speak different languages and cannot communicate with one another. That scenario unfortunately describes the challenge government agencies often face today when they want to share information among incompatible database systems.

To address this long-standing concern, the U.S. Department of Homeland Security and U.S. Department of Justice are collaborating with related federal agencies on a technology that will facilitate sharing of vital public safety and criminal justice information. Known as the National Information Exchange Model (NIEM), the new interagency effort will provide a foundation for sharing information using extensible markup language (XML), an open standard that allows exchange of information regardless of computer system or platform.

"The National Information Exchange Model (NIEM) was created to assist in developing a unified strategy, partnerships and technical implementations for national information sharing

across all levels of government in support of justice, public safety, judicial, intelligence and homeland security interests," says Jim Feagans, NIEM project manager at the U.S. Department of Justice. "Improving our nation's ability to exchange mission-critical information cannot be solved by any one entity alone. It will require a partnership among organizations, governments at all levels and industry."

With technical support from the Georgia Tech Research Institute (GTRI), the NIEM builds on the successful Global Justice XML Data Model developed earlier for the criminal justice community nationwide. The NIEM has released early drafts of the system components and programming tools, with the goal of a completed system ready for use by November 2006.

"By establishing a single standard for XML applications, the NIEM will build a foundation for exchanging information between the U.S. Department of Homeland Security, U.S. Department of Justice and supporting organizations responsible for emergency management, intelligence and other areas," explains John Wandelt, principal research scientist at the Georgia Tech Research Institute's (GTRI) Information Technology and Telecommunications Laboratory. "Building on the success of the Global Justice XML Data Model, NIEM will extend the benefits of a common data model to other agencies at the federal, state and local levels."

To accomplish that, NIEM is developing broad-based support among potential user groups by involving them in the development process.

"NIEM recognizes that the development of successful solutions to improve critical information exchange requires a focus on user needs and requirements," Feagans notes. "This means ensuring the appropriate input of both practitioners and policy-maker

representatives across disciplines, jurisdictions and levels of government. Hence, NIEM supports a local government and practitioner-driven approach to improving information exchange, and will work cooperatively with the nation's local and state governmental national associations."

GTRI assisted with the Global Justice initiative and now serves as the technical lead for the NIEM Project Management Office - which was established as a collaborative effort between the Department of Homeland Security and the Department of Justice. Working with GTRI, the group is identifying the core data components, reusable XML exchange packages and business-process models for information sharing that should be included in the NIEM. The Global Justice XML Data Model serves as a foundation for the expanded system.

"This project focuses on applying reusable components as the foundation and building blocks for our XML exchange packages," explains Michael Daconta, metadata program manager for the Department of Homeland Security. "This standardization of exchange packages is critical to allowing the kind of information data sharing and interoperability needed among agencies with similar missions."

@ Read more at: gtresearchnews.gatech.edu/newsrelease/niem.htm

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BELOW: A new interagency effort will provide a foundation for first responders to share information using extensible markup language (XML), an open standard that allows exchange of information regardless of computer system or platform. Georgia Tech Research Institute engineers provided technical support for the project.



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