

Pennsylvania's JNET Crafts a Robust Online Driver History Record Tool Using Global Justice XML

In August, 2003, [Pennsylvania's Justice Network \(JNET\)](#) deployed its online Driver History Record application, a cooperative effort between JNET and the [Pennsylvania Department of Transportation \(PennDOT\)](#), which is JNET's debut implementation of the Global Justice Information Sharing Initiative (Global) Justice Extensible Markup Language (XML) Data Dictionary (GJXDD), adding yet another XML standard JNET has mastered to support justice information sharing.

JNET, recognized as a national model for information sharing, was initiated in May 1997 with the founding vision to enhance public safety through the integration of justice information throughout the Commonwealth of Pennsylvania. JNET is a collaborative effort of municipal, county, state, bordering states, and federal justice agencies that developed and provided an online, secure, integrated justice system that allows participating agencies access to driver and offender records, and other justice information.

The GJXDD, a benchmark in justice XML standards, was developed by the Global Initiative, Office of Justice Programs (OJP), U.S. Department of Justice (DOJ). The GJXDD is composed of about 300 data objects, or reusable components, that have inherent qualities that enable access from multiple sources and reuse in multiple applications, allowing the entire justice and public safety community to effectively share information at all levels. The development of the GJXDD represents a significant change in the way practitioners develop their information sharing systems.

Prior to JNET, each Pennsylvania agency had its own computer and database systems which resulted in a fragmented justice environment where requests for critical information took days or weeks to get to the appropriate agencies. Today, JNET helps to solve the disparate problem and represents an unprecedented leap forward in information sharing and cooperation.

"It's a phenomenal tool to both the end user and to the justice process," said Chad Firestone, JNET Communications Manager, "because of the way it was done in the past." When an agency or individual wanted to obtain a driver history, they would fill out a paper form and submit it by mail. It could take two to three weeks for a request to be sent, processed, and returned. There were thousands of forms being processed each month. "Access to this information via JNET has provided an incredible time and cost benefit. JNET has reduced the response time from weeks to seconds," said Firestone.

By using XML to establish internal messaging standards, JNET was able to avoid traditional "turf issues" by leveraging agency's existing computer and database systems, thus ensuring agency independence and control over their data. Agencies publish pertinent case information to JNET, and other justice agencies subscribe to the desired information. As a result, a case is built on an individual as they move through the justice system.

JNET's Driver History Record utilized the GJXDD data element standards to develop a robust Driver History Record tool. Now, "JNET users can directly obtain digital Pennsylvania Department of Transportation (PennDOT) driver's license photographs and demographic information – the JNET application most frequently queried," said Dwight McKee, Senior Special Investigator and JNET Coordinator for the Pennsylvania Office of Inspector General and Chair of the JNET Data Conflict Subcommittee. According to McKee, "With the proper user role, JNET users can access digital photos and signatures, address information, and driver's records, simultaneously."

Zemin Luo, JNET Senior Architect, stated that “in developing the Driver History XML schema, about 80% of the data elements were extracted from GJXDD, with the remaining 20 percent extended to meet JNET project requirements.” The GJXDD is a reliable, stable justice standard that can be customized, evolving as community requirements change.

In a project survey, Luo expressed that “while learning GJXDD standards and developing XML schemas based on GJXDD caused some time delay in deploying the [Driver History Record] project, JNET expects to save resource-related time, and costs, as subsequent GJXDD projects occur. GJXDD will be highly reusable from a XML and object perspective; therefore, JNET projects that real time savings will be gained in future GJXDD-based projects.” The JNET Driver History Record is the first GJXDD-based application for JNET who is in the process of developing additional GJXDD 3.0-based functions.

JNET’s overall success and, specifically, its Driver History Record, has caught the attention of other states. [CrimNet](#), which connects Minnesota’s criminal and juvenile justice systems, plans to capitalize on JNET’s GJXDD application.

“We are excited about using their standards for our [drivers and vehicle services \(DVS\) data](#) . . . GJXDD is structured in a very flexible way that we can add our own state codes and still be able to reuse most of the work that JNET is doing,” stated Dan McCreary, an Information Technology (IT) Consultant for CrimNet. “We will be creating an XML Web service search adapter for our driver’s license records . . . allowing users to search driver’s records and return XML documents that have very consistent tagging of data using GJXDD. This data could then be used for many purposes—searching for records, validating data, and workflow, such as notices and updating change of address information on databases throughout the state.”

CrimNet also recognizes the cost savings in implementing XML standards like the GJXDD. “If we have a single standard, the cost may be about \$50K. If we have fifty different standards, one for each state, this type of interface will cost us \$2.5 million (\$50K X 50). So standards are a really good thing when you have limited budgets,” said McCreary.

JNET has and continues to research, evaluate, prototype and implement state-of-the-art, leading edge technologies. The JNET Web CPIN (Commonwealth Photo Image Network) is an investigative tool for the identification of criminal subjects through existing photo imaging technology. This search application will enable JNET users to search a database of over 2,000,000 photos, scars, tattoos, and descriptive characteristics such as height, weight, age, hair color, and eye color and provide users with a candidate list of suspects with the given characteristics.

The JNET Office is currently developing two additional GJXDD-based applications: an Electronic Citation Filing Project for transferring traffic and non-traffic citations from the Pennsylvania State Police to the court system and a Sentencing Guidelines Project for transferring the guidelines from the Pennsylvania Sentencing Commission to the court system. Both projects are expected to be deployed in the first quarter of 2004. Other GJXDD-based projects planned for the future include a Warrants Project and a Criminal History Record Disposition system update.

Wireless access to JNET has been initiated to provide the justice community the critical justice data they need in the field. This will enable real time access to justice data providing Pennsylvania law enforcement officers the ability to more efficiently and effectively assess the situations they face. Although “there’s not a lot of wireless access equipment in the field right now, the JNET system is ready and available,” said Firestone. “JNET is a very comprehensive system with large amounts of data and high quality digital photos which needs high speed wireless coverage.” As departments continue to deploy mobile data terminals (MDTs), tablet PCs, and laptops, and wireless coverage

becomes more robust and complete, access to JNET in a mobile environment will become widespread.

“The largest users of JNET are local and state police,” said Firestone. JNET provides law enforcement officers with immediate access to critical criminal justice information which helps them to perform their jobs more effectively. The availability of this information has enabled officers in the field to identify and apprehend suspected individuals, solve cases faster, and keep criminals off the street.