# Pennsylvania Justice Network's (JNET) Master Charge Code (MCC) Service Optimizes Statewide Charge Code Interoperability

Contributed by Dwight McKee, Co-Lead
Pennsylvania JNET's Master Charge Code Project

When an individual is officially charged with a crime, justice and law enforcement agencies routinely assign abbreviated codes to identify the offense in their computer systems. Most often, these criminal offense charge codes are created in-house by single or multiple local and state agencies. As a result, code inconsistencies can occur from agency to agency, as well as with statute code definitions. In Pennsylvania, however, a Master Charge Code (MCC) project is under way to consolidate and standardize criminal charge codes across the Commonwealth and to develop a centralized database that would automate charge code cross-referencing.

Pennsylvania Justice Network's (JNET) new MCC service is being developed as a Web-based central repository for electronically accessible charge code information—the only system of its kind in Pennsylvania—optimizing statewide charge code interoperability across disparate agencies and agency systems. According to James Dyche, JNET Information Systems Manager and MCC Committee Co-Lead, "JNET's Master Charge Code project is one of the first services we've implemented to address the more complex integration challenges. This project represents a key milestone that moves JNET toward a true service-oriented architecture (SOA) in supporting justice integration." The MCC service, designed and built by Deloitte Consulting, LLP, will house a set of standard master charge codes, display the most current statute code definitions, and will be efficiently updated in an automated and timely manner.

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 provide an online, secure, integrated justice system that provides participating agencies with access to justice information. Prior to JNET, each Pennsylvania agency had its own computer and database systems resulting in a fragmented justice environment where requests for critical information took days or even 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. The MCC service is one more step JNET is taking to more tightly integrate Pennsylvania's justice information.

The Pennsylvania State Police (PSP) assisted JNET in testing the MCC service and realized the usefulness and utility the MCC service provides. Deborah Bressler of the PSP's Incident Information Management System Project stated, "I have been using the MCC test site to do some interagency research. It is wonderful and has saved me much time in my analysis."

While JNET hosts, supports, and maintains the MCC application, the Pennsylvania State Police serves as the overall administrator, leading, facilitating, and managing MCC services. Agencies that have contributed charge code data to the MCC include the Administrative Office of Pennsylvania Courts (AOPC), Pennsylvania State Police (PSP), Juvenile Court Judges' Commission (JCJC), the Pennsylvania Commission on Sentencing (PCS), and the Pennsylvania Chiefs of Police Association (PA CHIEFS).

According to Linda Rosenberg, Director for the [Pennsylvania Commission on Crime and Delinquency's](#) (PCCD) Office of Criminal Justice System Improvements, "The PCCD has provided grant funding to the Pennsylvania Commission on Sentencing in support of JNET's MCC effort.  This project has brought together the major criminal justice agencies responsible for collecting, storing, and transmitting adult and juvenile offender data to accomplish this consolidation task.  PCCD fully understands the importance of efficient usage of federal justice assistance funds and the need for statewide collaborative efforts to improve information sharing across the criminal justice system.  The MCC is a prime example of the types of collaborative initiatives that PCCD supports towards meeting our strategic goal to promote communication and information sharing through the implementation and effective use of technology."

The ability to access, through JNET, a common set of criminal offense codes and descriptions will improve electronic information sharing throughout Pennsylvania's justice legal system and will streamline processing functions and  arrest disposition reporting.   "MCC has already been useful to the Pennsylvania Commission on Sentencing  as a starting point for defining codes for new offenses," said Mark Bergstrom, PCS Executive Director and MCC Grant Administrator.  "As the application is further deployed, it will serve as an excellent research tool for obtaining details on the processing of charges from arrest through sentencing."

MCC's fully functional master charge code database includes a Web interface that is enhanced with online searching, viewing, and updating capabilities.  Incorporated into the MCC design is the use of Extensible Markup Language (XML) message formats that are compliant with the latest version of the U.S. Department of Justice's (DOJ) [Global Justice XML Data Model](#) (Global JXDM).   Using Global JXDM-conformant XML has simplified messaging interface development and integration.  Developed by DOJ's [Global Justice Information Sharing Initiative](#) (Global), the Global JXDM is an XML standard designed specifically for criminal justice information exchanges.  Through the use of a common vocabulary that is understood system to system, Global JXDM enables access from multiple sources and reuse in multiple applications.

Leveraging JNET's architecture, JNET user agencies will benefit from real-time message alerts using JNET's translation and messaging infrastructure to convey new and amended charge code information in a publish-subscribe format.  Additionally, the MCC service will automatically populate the standardized code tables with new and amended statute data.

"MCC is the first step in resolving charge code data conflicts," said Randi Lorah, Applications Developer with the Pennsylvania State Police.  "For a number of reasons, agencies have been unable to move to a standard.  With MCC, we now know how the codes relate to each other across agencies.  The charges now map to one master charge code."  Not only can the MCC service map agency charge code information to a master charge code, it can also cross-reference agency charge codes; store agency-specific custom charge code data; notify agencies in an automated, timely manner when legislation creates new or amended charge codes; and display full-text criminal statute language that is derived from internal tables and LexisNexis® services.  Additionally, a copy feature enables users to print MCC information and to populate electronic justice documents with pertinent statute language.

In planning for the MCC service, all possible categories of codes were considered in scope, including, but not limited to, Uniform Crime Reports (UCR), National Incident-Based Reporting System (NIBRS), National Crime Information Center (NCIC), American Association of Motor Vehicle Administrators (AAMVA), Criminal History Repository (CHR), Incident Information Management System (IIMS), Crime Network (cNET), Prosecutors Management System (PMS), LIVESCAN Automated Fingerprint Identification System, and the Commonwealth Photo Image

Network (CPIN).  Ultimately, more than 23,650 codes from seven agency systems were loaded. Taking into account complex cross-reference mapping between agency codes and the master codes, MCC's repository currently exceeds 30,900 codes.

By adopting JNET's MCC application, agencies that are upgrading or designing justice systems will have the ability to expand their integration capabilities and reduce development costs.  Pennsylvania's justice community will realize many benefits, such as:

- Standardization and a step towards genuine integration.

- Removal of agency redundancy and duplicative storage.

- An automated access to disparate agency system charge code representations.

- A single cross-linking system for "relating" to disparate agency system charge codes.

- A "standard" charge code description and versatile way for classifying charges.

- A high level of granularity.

- Multiagency governance of MCC services and future enhancements.

In recent months, the MCC project has finalized its Web application pilot, completed user acceptance testing, and has now begun migrating the notification and messaging components into production.  Currently, MCC Phase 1 is undergoing final system validation.  Full deployment to JNET's 24,000 users is expected in early 2006.  MCC Phase 2 will address the following enhancements:

- Automate full-text statute functionality using Web services and JNET SOA integration to update MCC tables and transparently authenticate user access to LexisNexis services.

- Establish a Web-based link outside of JNET's secure environment to enable MCC service access by non-JNET agency users and research portal requirements for general public access.

- Expand messaging and notification capabilities necessary for updating MCC financial data, routing agency charge code data to MCC, and conveying new event messages.

- Create a MCC service data export feature.

For more information on JNET or JNET's MCC service, contact Dwight McKee, MCC Committee Co-Lead, at dwmckee@state.pa.us.