



## **Meth Precursor Tracking Interstate Exchange IEPD Tennessee Meth Task Force and Kentucky Cabinet for Health and Family Services**

### **Client Agency**

Tennessee Meth Task Force  
Chattanooga, Tennessee  
Kentucky Cabinet for Health and Family Services  
Frankfort, Kentucky

### **Participating IJIS Institute Staff**

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### **Dates Services Provided**

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### **Overview of Technology Assistance Request**

The federal *Combat Meth Epidemic Act (CMEA) of 2005* standardized methamphetamine (meth) precursor tracking at retailers nationwide, requiring retailers to log purchases of all meth precursors (chemicals serving as raw materials in the manufacture of meth). This legislation was augmented in Tennessee by the *Meth-Free Tennessee Act of 2005*, which led to creation of a store precursor purchase program by which retail purchases could be reported electronically to a state tracking database ("the Pond").

This Pond database operates under the auspices of the Tennessee Methamphetamine Task Force (TMTF), which is leading the effort to develop regional and national precursor tracking capabilities with assistance from the Bureau of Justice Assistance (BJA).

The TMTF Methamphetamine Intelligence System (TMIS) enables law enforcement officers to submit queries against data extracted from the Pond about individuals whose precursor purchases have exceeded the legal limit over a specified period.



Individuals who purchase meth precursors for illicit purposes have discovered they can escape detection by threshold-based programs by spreading their purchases across multiple states. Information exchanges between state precursor tracking systems can help combat this conduct by enabling multi-state threshold calculations based on purchases across multiple states.

The Methamphetamine Precursor Tracking (MPT) National Information Exchange Model (NIEM) Information Exchange Package Documentation (IEPD) will further this goal by providing a common exchange model that can be utilized nationwide. More specifically, it will provide state meth precursor tracking programs with instructions and guidelines on how to exchange NIEM-based requests and responses regarding recorded purchases.

### Type of Technology Assistance Services Provided

The team created a set of NIEM-conformant XML schemas that implemented the document structure identified in the Mapping. The one significant difference between these schemas and those that are typically produced is that the base schemas were approached from an enterprise perspective and not from an exchange perspective. In practical terms, this means that all of the exchanges were modeled from the perspective of the domain, to better achieve re-use with future applications.

The end-product is a set of linked schemas, each serving a different purpose:

- ◆ An enterprise level schema set, which defines the domain structure for all exchanges relating to both MPT and PMIX. This schema set is not used in practical terms and serves as the root level specification for all exchanges within the enterprise related to MPT. This schema set is comprised of:
  - A **subset schema**, extracting from the full NIEM namespaces just those types and elements needed for the precursor tracking IEPs;
  - An **extension schema**, defining an IEPD-specific namespace to hold types and elements needed for the precursor tracking IEPs but not currently defined in NIEM.
- ◆ Enterprise Constraint schema sets, which lock down the cardinality of individual exchanges. There is one constraint set per exchange. It is also here that the document level Exchange schema is defined. In traditional IEPD exchange modeling, the constraints only apply to the subset. From an enterprise perspective, it applies to:
  - The IEPD enterprise extension schema;
  - The IEPD subset schema; and
  - The **document schema**, defining the specific exchange root element.

The engagement also created a set of schema-valid, sample XML instances to illustrate the schema's use for each exchange. This sample was utilized for the following additional purposes:

- ◆ A mechanism to help ensure the integrity of the schema set;



- ◆ Development documentation specifying precisely what an instance should contain;
- ◆ Inputs to XML-object binding tools for generating instance manipulation source code; and
- ◆ A source of the message structures for Web Services definitions.

The set also included the subset schema package produced by the SSGT.

Management findings and several high-level technical artifacts are contained in this report. Detailed technical artifacts were packaged into a comprehensive IEPD and posted on the Office of Justice Programs IEPD Clearinghouse Web site (<http://it.ojp.gov/iepd>).

### **Overview of Observations and Recommendations**

A copy of the TA report can be found on the IJIS Institute website at [www.ijis.org](http://www.ijis.org).

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