



Case Study: Integrated Justice

Industry: Public Sector

Customer:
State Department of Law
Enforcement

Challenge:
This southern state wanted to implement a project that facilitated the sharing of crime & public safety information statewide in order to better fight crime and meet federal guidelines. The information resided in more than 500 regional systems across seven state regions and an eighth state node, each with a different approach to data sharing.

Solution:
The state chose Sypherlink's Harvester solution to automate much of the discovery and mapping process. This enabled the state to create a statewide data sharing model that leveraged the federal data structure, enabled regions to remain autonomous in their technology decisions, and overcome resource and funding restraints.

State Accelerates Information Sharing Effort and Compliance with National Standards using Sypherlink Harvester™

One of the biggest challenges law enforcement faces is the ability to manage, analyze and share increasingly large amounts of vital law enforcement across regions, states and, ultimately, the country, using the federal National Information Exchange Model (NIEM). The first step to linking this information is to understand what commonalities exist across the various local and regional agency systems and create a common vocabulary for sharing the information.

Due to the increasing focus on Homeland Security across all fifty states, a leading southern state decided to implement a statewide sharing of crime & public safety information to better track criminals across their state and support federal initiatives. The project encompassed massive quantities of information from more than 500 regional systems across seven state regions and an eighth state node. At the regional level, multiple data sharing approaches and competing systems were already in place as local data sharing efforts had already begun. The state needed to create a single data model that the regions could adhere to while ensuring that the chosen implementation approach would also support the federal NIEM model.

Time, Cost and Political Restrictions Threatened Project

When this state's data sharing project was approved by the federal government, it was given not only a limited budget, but also a very stringent date by which to complete the project in order to keep the funding. If the money was not used by that deadline, the money would be lost. Although the state was clear in their goal, they were challenged by the funding and the timeframe in which they had to complete it. The amount of time and resources it would take to manually evaluate each of the seven regional systems and map them to a single data model was prohibitive. They needed to create the model quickly and accurately, as this was the first of many steps necessary to share data at both the regional and local levels. To complicate matters further, the state also had to deal with regional leaders who had already selected data sharing approaches and systems to meet that met their specific needs, and were not willing to throw them out to comply with state regulations. They, too, were dealing with limited resources and funding and weren't willing to turn back on investments they had already made.



Results:

- Reduced mapping effort and cost by 50%
- Created single statewide data model that also complied with federal guidelines
- Provided immediate and comprehensive information access for all levels (local, state and federal)
- Improved data integrity
- Enabled data flexibility for use in future data-sharing initiatives

Automated Approach Used to Define Statewide Data Model

The state standardized on Sypherlink Harvester as their automated metadata discovery and mapping tool. The unique technology automated the process of discovering the baseline data across the seven regions, including data from relational, non-relational and non-traditional data sources such as spreadsheets and flat files. After understanding the schemas and metadata from the regional data sources and sampling the data, Harvester then utilized its patented heuristic matching process to automate the mapping of the baseline to the target. Finally, the result of the mapping was used to define the target data model, all the while ensuring it leveraged NIEM in the definition.

By taking this approach, the state ensured that the data model met federal guidelines and would easily translate to the NIEM standard for future data sharing initiatives at the federal level. While meeting that upstream requirement, Harvester also facilitated harmony with the state’s downstream regional partners in that it enabled the regions to keep their technologies and methodologies in place while still able to share data with the state. Finally, automating the discovery and mapping process helped the state overcome its resource and funding constraints.

With the new data model in place, the state will focus on using a similar approach to share data between local agencies and their respective regions, and to continue to evolve the state model as necessary. With the completion of this project, criminal information will be available when and where it is needed, giving statewide law enforcement the most comprehensive information across agencies and across jurisdictions.