



**State of Minnesota**

**Department of Human Services**

***Minnesota Human Services Shared Master  
Index (SMI)***

**NASCIO 2008 Recognition Awards Nomination**

**Category 2: Cross Boundary Collaboration and Partnerships**

## **B. Executive Summary**

In Minnesota, human services are primarily administered at the county level. The Department of Human Services (DHS) supervises program administration and provides computer systems to automate many administrative functions in accordance with federal and state requirements. However, because the systems were developed to support specific program areas, client data is often duplicated in multiple systems, and caseworkers cannot readily access client data across program areas that reside in multiple systems. To support workers in providing holistic and integrated services, DHS has developed a Shared Master Index (SMI) to match and integrate client records across the major DHS systems that support cash assistance, food stamps, Medicaid, child support, child protection and other social services programs.

Using the client cross-reference, the SMI also gathers data from the major systems to provide field workers with a holistic view of client information across human services programs. SMI makes all of its functionality available through Web services so partner systems at DHS and counties can access data and make use of the SMI services for searching, adding and updating client records.

The major DHS systems provide excellent support for program administration. In addition, many counties, especially the larger ones, develop technology solutions to meet some of their unique needs. SMI provides these counties with the opportunity to integrate their solutions with DHS systems in ways not previously possible. Through the SMI, counties can now link DHS data with local data, and automate workflows and business processes more effectively and seamlessly.

Minnesota's Hennepin County developed an Electronic Case File (ECF) application that is tightly integrated with, and dependent on, the SMI for local operations. The state SMI database is the county ECF database. ECF also accesses data from the various DHS systems through the SMI Web services to present ECF workers with an integrated view of client data across DHS and county-based systems. In addition, the workers access DHS data to automate the indexing and routing of electronic documents within the county. Dakota County and Carver County are currently developing applications that access the SMI Web services for electronic document indexing, forms completion, appointment scheduling and interactive voice response systems.

Accessing DHS data through SMI Web services reduces duplicate data entry for workers and enables more automation of local processes. The tight integration of state SMI and county systems has provided greater efficiency for county operations. In addition, it has saved counties the costs for developing and maintaining these integration functions at the local level.

Building the SMI has been a major collaboration effort across DHS program boundaries which tend naturally to be driven along program and funding lines. A common commitment to serve clients more holistically has enabled program staff to work through issues of data ownership, security and privacy to make the SMI a success.

Integration of the SMI with county systems reflects collaboration across governmental boundaries, and collaboration between the private and public sectors.

## C. Description of business problem and solution, including length of time in operation

### Business Problem:

Government Human Services have historically been administered and funded along program lines. Program areas include: child support enforcement, social services, cash and food programs, and medical programs. Because the federal government heavily funds these programs, federal agencies have provided significant funding incentives in the last 25 years for states to develop computer systems to support more efficient, uniform and consistent administration. Like most states, Minnesota leveraged federal funding to build efficient, effective, complex systems to support these program areas.

The problem with this program-driven model for service delivery and administration is that the people who need services do not fall neatly into government program categories. Caseworkers in the field must match the needs of the people they serve with the programs and services available. One client may be served by multiple programs and have contact with multiple caseworkers, each working on a different aspect of the case along program lines, and sometimes working at cross-purposes. As clients interact with different workers, clients are often asked to explain their situation and provide the same information repeatedly.

In Minnesota, as in many states, DHS and counties are committed to providing more holistic and integrated services to people in need. The Shared Master Index (SMI) application is one manifestation of that commitment.

DHS developed the Shared Master Index (SMI) to match and integrate client data to support integrated service delivery across programs areas. The SMI links common client records across the major DHS systems that support cash assistance, food stamps, Medicaid, child support, child protection and other social services programs. The SMI also gathers data from the major systems to provide field workers with a holistic view of client information across human services programs. SMI makes all of its functionality available through Web services so partner systems, at DHS and counties can access data and make use of the SMI services for searching, adding and updating client records on the SMI.

Hennepin County, Minnesota's largest county where Minneapolis is located, developed an Electronic Case File (ECF) application which is tightly integrated with and dependent upon the SMI for local operations. The state SMI database is the county ECF database. ECF also accesses data from the various DHS systems through the SMI Web services to present ECF workers with an integrated view of client data across DHS and county-based systems. In addition, workers access DHS data to automate the indexing and routing of electronic documents within the county. Dakota County and Carver County are developing applications that access the SMI Web services for electronic document indexing, forms completion, appointment scheduling and automated interactive voice response systems.

The SMI database and Web services to access major systems' client data have been operational in a production environment since January 2007. The database receives new records and data updates daily from each of the major systems. The user base of SMI is

still relatively small. SMI plans to roll out access to SMI during the next year. Rollout of SMI has been slow primarily due to security and data access barriers that are slowly being overcome.

The Hennepin County ECF system has been in operation since June 2007 with a limited user base. Since that time, Hennepin has continued to expand ECF to additional business areas. Carver and Dakota Counties are in development with their new EDMS, electronic forms and appointment schedule systems that access DHS data through SMI Web services.

#### D. Significance to the improvement of the operation of government

The implementation of the SMI is significant both in terms of the system functionality and the direction change it represents in the operation of state and county government with respect to human services.

SMI provides DHS and counties a search and match service for locating and linking client records and their data across systems. It provides human services workers with access to client data across systems and program areas, enabling them to view a client's situation more broadly and holistically, and to coordinate services with other workers dealing with the same client. Most important, empowering workers with information provides support for a more effective relationship with clients. If clients are not required to provide the same information again and again, they are likely to feel more respected in their effort to access human services.

SMI also represents a new direction in the integration of functions for DHS and counties. SMI provides shared services that can be accessed by the major systems as well as counties for searching, adding and updating client records, and accessing data across the DHS systems. This is a major step toward system modernization with principles of re-usability and service oriented architecture across program and system boundaries. SMI provides Web services to its partners, and accesses Web services published by the major systems. Implementing the SMI has brought a new model of architecture and partnership to DHS and counties which can be built upon and expanded into other areas of human service delivery.

#### E. Benefits of the Project – financial and non-financial reasons why this project was a worthy investment

Financially, the SMI project has benefited counties that need to integrate data across their county systems. The SMI has reduced the costs to counties of building and maintaining client matching and linking systems. SMI also saves administrative costs for workers who need to access data across multiple systems. They now can go to one place to get data that formerly they could get only by logging into multiple systems.

As a reusable search and match service, SMI has the potential to reduce costs for the major DHS systems. Currently, most of the systems maintain their own search software and many of them pay per transaction costs for these intensive search functions.

Leveraging the SMI for this processing service will reduce the costs because the SMI runs on servers owned by the department. There are no per-transaction costs associated with this processing.

The non-quantifiable benefits of the SMI are in many ways even more significant. The biggest value the SMI brings to the business of human services is the ability to view a client holistically. This ability positively impacts service delivery because each worker can see the larger context of a client's engagement with the agency.

Concretely, SMI enables:

- Improved communication among workers with common clients;
- Increased respect for clients because their workers are more informed about client situations without having to answer the same questions multiple times;
- More coordinated case plans across program areas;
- Better fraud detection and research;
- More integrated reporting capabilities.