

SAMS has a proven track record of success at the federal, and state government agency levels. The SAMS Hub was used in the E-Vital initiative that was established to automate and streamline current paperbound processes among government agencies that require access to vital records data according to state and federal laws and regulations. As one of the Office of Management and Budget's (OMB) 24 Quicksilver **egov** initiatives, this system went live in August of 2002. A key feature of the system is that all messaging happens in 5 seconds or less. The following technologies have been successfully integrated with the E-Vital system:

ASP, JAVA, XML, Visual Basic, HTML, JavaScript, .Net, C#, MSMQ, IBM WebSphere, SSL, VPN; and Oracle, DB2, and Microsoft SQL Server databases.

In June 2003, OMB awarded E-Vital the **egov "Pioneer Award"** for technological innovation in high-tech government-to-government solutions. In July 2003, the NECCC selected E-Vital for their award for "**Cost Effective Solutions in Government**". The E-Vital system has a broad range of application within the federal government and is currently being considered for utilization within a number of agency's within the Federal government. Systems Made Simple (SMS) is a high technology software engineering company specializing in complex Internet solutions. Our SAMS solution enables agencies to access highly sensitive information from individual SAMS Responder databases while maintaining a high level of system security and integrity.



**Systems
Made
Simple**

...the Software Engineering Company

www.systemsmadesimple.com

One Northern Concourse Syracuse, New York 13212 (800) 893-9883
FAX: (315) 455-3120



Systems Made Simple

SECURE-ACCESS MESSAGING SYSTEM (SAMS)

Systems Made Simple, Inc | One Northern Concourse | Syracuse, NY 13212 | (800) 893-9883
www.systemsmadesimple.com

SAMS is an acronym for a Secure-Access Messaging System. SAMS is a secure network designed to improve the quality, security, and speed of data exchange. SAMS was created to enable geographically dispersed agencies to communicate using defined message sets, through a rules based query engine, to derive predefined response types and data sets. Utilizing proven electronic authentication methods as well as secure, online verification of data transfer, SAMS provides the ability to rapidly access data, in a secure environment, while having a minimal effect on source agency processes and data.

The SAMS system leverages new technologies to provide a real-time, on-demand information network that implements a triple DES encrypted XML message format using SSL to ensure secure communications. This system provides a number of advantages:

- (1) It provides a secure medium for SAMS agencies to query individual databases within a given agency's pre-established access criteria;
- (2) The system leverages new technologies to reduce the time required to complete some processes from weeks to seconds.
- (3) SAMS provides agencies with an intuitive, simple to use process to request information from any participating agency's system;
- (4) The system does not interfere with current agency business processes.
- (5) The SAMS system's Intelligent Query Engine also provides the added benefit of helping the SAMS agent to fine-tune the request based on possible anomalies in the request data to increase the likelihood of a match.

The SAMS system is comprised of two basic types of participants: Requestors and Responders. A key component of the system is the definition and development of a Message Event Transaction (MET) that defines the structure under which the participants communicate. The MET is developed, as part of the implementation process and becomes the standard for authorized agencies to exchange information. The MET is an XML-based message format, designed to support two-way transactions, and cater to your specific needs. A request message is generated and routed to the responder where the source data is housed. The SAMS Responder component will provide the requestor with the desired data based on the results of its query of the database. The response message is then formulated and returned to the requestor agency for processing.

At the heart of the SAMS system lies the SAMS Hub. The figure shows the architecture of the SAMS system. There are three primary components: the SAMS Requestor; the SAMS Hub; and the SAMS Responder. As depicted in the figure, the SAMS Hub receives all requests from SAMS Requestors in a triple DES encrypted XML message format. The SAMS Hub evaluates information in the message header and determines which responder the request should be routed to. At each responder site the SAMS Responder component receives the MET Request message and interprets all encrypted information contained within the message format. This design enables the SAMS Hub to exist outside of both the requestor and responder environments while still providing a secure medium for both (i.e., neither agency has access to the others environment other than through the SAMS Hub; and the SAMS Hub has no access to the actual request or response data).

The SAMS Responder dynamically generates a set of queries to be performed against the responder's database. The responder database provides a response to each of the executed queries. The SAMS Responder component then constructs the appropriate encrypted response message and returns the response to the requestor through the SAMS Hub. At no time does the SAMS Hub have the key to encrypt/decrypt the message thereby ensuring the highest level of security between all participants.

Security, speed and audit logging were primary components of the SAMS Hub design. This scalable environment comes with benchmarking tools to test an unlimited number of requestors and responders. This design allows the SAMS Hub to provide access to on-line data *in under 5 seconds*. Additionally, all transactions are logged within the SAMS Hub, this coupled with our billing component allows for monthly billing for all requests that are processed using a pre-determined billing structure which is configurable for all participants.

Systems Made Simple has deployed technical solution for the SAMS system using either Microsoft's .NET architecture on the hub and Microsoft's message queuing technology to handle incoming and outgoing traffic or a "all-Java" solution which utilizes Java Message Queuing. On the responder end SMS's solution utilizes Java programs to provide a portable Responder component that can execute on any responder architecture.

