Community supervision officers and Washington, D.C., police on "accountability tours" exit a house after talking to an offender.

By Frank Lu and Laurence Wolfe

TECHNOLOGY THAT WORKS:

An Overview of the Supervision and Management Automated Record Tracking (SMART) Application

Criminal justice practitioners know that effective information management can be the difference between a successful and an unsuccessful agency. Line staff must maintain and update complex offender records that often include information from multiple sources. As a result, the system should provide easy access and an easy-to-use interface to encourage staff to enter data in a timely manner. At the same time, managers must be able to trust the data that the system produces. The programming behind the interface must accurately reflect how cases move through the agency. In short, criminal justice information systems have to look very simple and yet act very sophisticated.
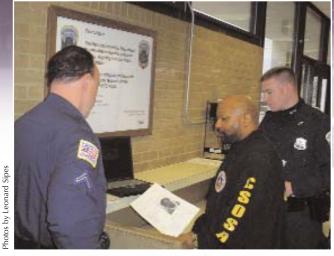
Community corrections information systems make particularly complicated demands on system architects. Offenders change residences and jobs frequently, and come in and out of contact with family and friends. As the nation's capital entered a new era in community supervision, a new information system was built enabling electronic case management, rather than time-consuming data entry. The Supervision Management and Automated Record Tracking (SMART) system combines case management functions with an emphasis on agency performance. A hand-held version of the new system (SMART lite) will soon accompany officers into the field to allow real-time data entry and access to case records. As the federal Court Services and Offender Supervision Agency (CSOSA) Director Paul A. Quander Jr. stated, "Our information system reflects our commitment to best practices and innovation. We recognize that accurate information is critical to our ability to protect the public."

CSOSA's Creation

Established by Congress in 1997, CSOSA assumed probation and parole supervision of about 14,000 offenders from, respectively, the District of Columbia Superior Court and the D.C. Board of Parole. CSOSA also inherited both agencies' antiquated and poorly maintained information systems. "From the beginning, record-keeping was a tremendous challenge," said Tom Williams, CSOSA's associate director for Community Supervision Services. "We knew that the old systems were hard for the officers to use and contained lots of duplicate or incomplete records. It was a real challenge just to keep [the systems] functioning, and they were often down."

Since its inception, CSOSA has set out to transform community supervision in the District of Columbia. From two chronically underresourced and understaffed agencies, CSOSA set about building a model community corrections agency based on research-driven programming and operational best practices. With congressional support, CSOSA implemented a community supervision model based on four key operational concepts: risk and needs assessment, close supervision, treatment and support services, and community partnerships. Additional resources enabled active and monitored caseloads to be dramatically reduced, from more than 100 offenders per officer in 1997 to an average of 50 today. The agency built capacity to provide substance abuse treatment and educational programming. Supervision officers moved out of a centralized headquarters and into field locations closer to the offenders on their caseloads. CSOSA established valuable partnerships with neighborhood organizations and other criminal justice agencies such as the District's Metropolitan Police Department. "CSOSA emphasizes community and supervision equally," said Cedric Hendricks, CSOSA associate director for legislative, intergovernmental and public affairs. He added, "Our mission is to improve public safety. We know that to do that, we have to be an active presence in the community."

From left to right: Metropolitan police officer Brian Herringa, CSOSA officer Warren Leggett Jr. and Metropolitan police officer Jason Bagshaw use the SMART system and paper record to discuss a case.

Agency managers never lost sight of the need to improve information management both to increase operational efficiency and to enable CSOSA to report results. Although an interim system was developed in 2000 to combine data from the two legacy systems, this was always viewed as a short-term fix. In 2001, CSOSA initiated a market survey to evaluate existing off-the-shelf software packages. Customizing an existing product would certainly save time, but the survey revealed that existing products could not be modified to meet agency needs. It also was determined that vendor involvement would complicate future system enhancements, as well as potentially increase the cost. In September 2001, the agency committed to building its own information system to capture its unique approach to community supervision.

CSOSA launched SMART, a fully Web-based application, in late January 2002. It was developed in partnership with SRA International Inc. and moved from requirements analysis to initial implementation in about five months. "We were on a very aggressive schedule," Williams said. "The lack of an effective case management system negatively affected the morale of all staff in the agency. We wanted to change that as quickly as possible."

Unlike traditional case management solutions, SMART is "offender-centric" — all the data revolve around the offender, with the specific case information represented as simply one attribute of an offender. This model is particularly representative of the real business process of supervising offenders on parole, probation or supervised release, since the agency is truly concerned with offender activities rather than with court actions or other records.

The Development Process

To bring the new information system online in record time, CSOSA's information technology team worked closely with Community Supervision Services to gather requirements and chart the flow of information in the new system. Requirements subcommittees were formed for each of the agency business processes. A key factor in the project's success was not only to secure senior management buy-in from the onset, but form a partnership with the business users and the vendors. Agency leaders emphasized the importance of strong user participation in providing the requirements for the system. "It was essential to involve line staff and supervisors in the system's design," Williams said. "For the end result to be truly user friendly, the users had to have a lot of say in how the system looked."

During system development, CSOSA staff and consultants worked to build an information system that could follow an offender's progress throughout supervision. The requirements gathered from the users, coupled with comments from the March 2001 General Accounting Office (GAO) report *D.C. Criminal Justice System: Better Coordination Needed Among Participating Agencies* (www.gao.gov/new.items/d01187.pdf) calling for increased coordination among the District of Columbia's criminal justice agencies, resulted in the following core requirements, which the new system needed to address before it could be called a success:

- Reduce paperwork as a step toward the long-term goal of a paperless office;
- Provide automatic notification of events in support of CSOSA policies and procedures;
- Track historical data;
- Seamlessly integrate with other agencies, where appropriate and viable;
- Provide secure access from inside and outside the agency;
- Present a usable and navigable interface;
- Produce management-level and operational reports;
- Include a fully searchable diary function;
- Provide access via the Internet; and
- Assist senior managers in their supervisory roles.

SMART's initial release addressed the core agency business needs. Since then, additional modules to provide enhanced functionality, automated workflow and added business functionality have been added. Specifically, SMART 1.0 consists of the following core modules and functionality:

- Intake, including automatic assignment of cases to supervision teams based on offender demographics and round-robin cycles;
- Reports, including detailed management-level caseload summaries, operational reports for use by case supervisors and reports to capture agency performance on key outcome and output measures;
- Home page defaults to show caseload lists, team assignments or branch assignments;
- Security roles to restrict access to modules based on a user's assigned role;

- Limited access for external users (e.g., judges, U.S. Attorney's Office, Metropolitan Police Department) to review case information and documents;
- Tracking of offender demographics, including physical descriptions, identifiers, housing and employment history, contacts, drug test results, assessments and victim data;
- Replication of drug testing results;
- Detailed supervision information, including dockets and charges, supervision sentences and violations;
- Treatment referral, placement and tracking module;
- Automatic generation of complex presentence investigation and alleged violation reports to the releasing authority;
- Attachment of case documents, including Word documents, offender photos and Adobe PDF documents;
- Electronic signature and workflow feature, including the integration of the supervisors' signature image into a noneditable, secure document for delivery to the courts;
- Spell check for running record (diary) entries; and
- Tracking of offenders in community service and vocational, educational and employment programs.

A Public Safety Payoff

The initial release of SMART gave CSOSA's community supervision officers a new set of case management tools. "SMART is the most comprehensive computer-based [supervision] system I have seen," said Akil Walker, a community supervision officer. "The different subtexts in SMART allow you to have a complete picture of an offender from housing and employment to drug usage to sanctions and appropriate interventions. SMART allows me to access physical descriptions of our offenders and cross-reference them with recent sex offenses that have taken place in the metropolitan area."

From its launch, SMART's ease of use made it a tremendous success with staff. More than 250 staff members, including all supervision officers, received initial training in the first month following release. "Everything is at your fingertips immediately," said Tosha Trotter, a community supervision officer. "You do not have to read someone's handwriting. The information is current. You can respond with accurate and timely information. You hit a few buttons; you can get anything at all."

Another officer (who asked not to be identified) described how SMART contributed to the agency's public safety mission. "There was a murder of a young woman in the District, and the Metropolitan Police Department had scant information about a possible suspect," the officer recalled. "Within a few minutes, we were able to run a series of screens regarding aliases and offenses, and we were able to provide a list of possible suspects. When the investigation narrowed the field to one suspect, we were able to provide a recent digital photograph and the names, addresses and telephone numbers of relatives, friends, co-workers and treatment providers. The suspect was quickly found and brought to justice."

This kind of responsiveness makes SMART a valuable management tool. Quander, the CSOSA director, points to the system's ability to inform policy. "SMART is a tremendous asset to the agency's operations," he said. "For too long, justice system managers could only guess the impact of their operations and strategies. SMART allows us to formulate policy and set the agency's direction based on results. We intend to demonstrate conclusively that close supervision of offenders, coupled with appropriate sanctions and interventions, is a cost-effective method of reducing recidivism."

SMART tracks the agency's progress at all levels. Soon after initial implementation, CSOSA began examining ways in which SMART could be used to track individual employee performance. All case management activities are recorded in SMART, making the electronic case record the most accurate and complete reflection of an officer's work. "It really makes sense to look at employee performance from the standpoint of the case record," Williams said. "Not only does it help ensure data quality, it keeps the officer mindful of everything that goes into good case management."

The system is designed to provide reports at the agency, branch, team and individual officer levels. Key case management activities can be measured at any level. For example, the system can generate reports both on how many offenders received multiple positive drug tests and whether the supervision officers referred those offenders for treatment services. As the federal government increases its emphasis on performance measurement and linking an agency's budget with its performance, SMART enables CSOSA to report its achievements and justify requests for additional resources. "We can quantify what we're doing, how well we are doing it and where it is getting us," Quander said. "This allows us to target our resources and determine exactly what else we need."

Long-Term Commitments

Bringing SMART 1.0 online was only the beginning of CSOSA's long-term commitment to performance management and data quality. Enhancements to the first module were planned even before initial implementation. SMART's growth is based on the principles of object-oriented software development, which makes requirements easier to capture and allows new functions to integrate seamlessly with the existing system.

In addition, the agency has adopted a strategy to build both in-house capacity and external consulting relationships that ensure access to strong technical skills. CSOSA's Office of Information Technology has adopted a team approach to bring system analysis, architecture, engineering, testing and software development skills into the agency. A SMART users group meets regularly to discuss data quality and integrity issues and plan corrective actions. System developers continue to meet with users to capture the unique requirements of CSOSA's business processes.

SMART's ease of use has allowed CSOSA to concentrate more on the quality of information that goes into the system and less on training officers to manipulate it. "It's great that the system is so easy to use," said Debra Kafami, a supervisory management analyst for Community Supervision Services and chair of the SMART users group. "Most officers are very receptive to improving their data quality once we demonstrate how that data is used. And for those who don't have very good computer skills, the system doesn't frighten them away."

Kafami also issues SMART Notes, technical memos that clarify data definitions and procedures. "It's really the best way to communicate," she said. "We developed SMART Notes out of necessity, but now everyone knows that when they see one come over their e-mail, it means some new information about SMART is available to help them do their job." The 49 notes are also available as a "help" feature within the system.

SMART has played a key role in CSOSA's efforts to revitalize community supervision in the District of Columbia. By providing supervision officers with a state-of-the-art system that is both powerful and easy to use, CSOSA's leaders have recognized the critical relationships among record keeping, case management and performance reporting.

SMART fulfills each of these functions, enabling the agency to move beyond the goal of performance management and into the reality of information-based decisions. With its modular architecture and extendable platform, SMART can react flexibly to new business needs. Its reliability, sturdiness and ease of use translates into increased business efficiency. "SMART is an incredibly powerful tool in a very sleek package," Quander said. "We've only begun to explore its capabilities. We're very excited about what SMART can become, particularly the upcoming mobile version that officers can take into the field."

CSOSA has successfully developed and implemented a new generation of criminal justice information system. As SMART continues to grow, CSOSA's leaders are certain that the system will become an industrywide model for supporting best practices in community supervision.

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