The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

Final Copy of Case Study

YEAR:
2012

STATUS:
Laureate

Organization:
San Joaquin County

Organization URL:
http://www.co.san-joaquin.ca.us/default.aspx

Project Name:
Integrated Justice Information System (IJIS)

What social/humanitarian issue was the project designed to address? What specific metrics did you use to measure the project's success?

San Joaquin County Information Systems Division was faced by a huge challenge. With the decreasing funds and staff in San Joaquin County, it became critical that the Information Systems Division provide support in development of new Case Management Systems so the functionality provided by these systems could fill in the gap made by the decreasing manpower in Law and Justice Departments. A summary of the business challenges and expected benefits are: decreasing budgets - decreased cost of building capability, streamline processes, and cut cost per activity; growing county population - modernize and strengthen infrastructure; changing demographics - provide new self-service capabilities using modern technology; aging criminal justice information system - major infrastructure modernization; and service constrained by organizational structure/process - adopt new technology and standards such as National Information Exchange Model (NIEM) and BPM/SOA to enhance collaboration and agility internally and externally. Additionally, we never lose sight of our core business of protecting the public, which means leveraging new technologies and techniques to keep the public safe with fewer resources. The Integrated Justice Information System (IJIS) provides a Web-based system to link over 650,000 residents, 6,600 internal users, 18 agencies countywide and other law enforcement systems nationwide. This modernization initiative focused on these three aspects: replace an outdated and difficult-to-maintain warrant system to improve the county's ability to manage making arrests, issuing warrants, and maintaining histories, and to transition to the new state court system; implement service-oriented architecture (SOA) to simplify integration between

several county law and justice systems with diverse architectures and transfer law enforcement data to the court system's mainframe; and ensure the highest level of security for sensitive data.

Please describe the technologies used and how those technologies were deployed in an innovative way. Also, please include any technical or other challenges that were overcome for the successful implementation of the project.

Our choice to modernize IJIS using SOA and Business Process Management (BPM) technologies is both aligned with our strategic vision and meant to lower our business risks by providing agility and a phased implementation rollout.
Think Big: We chose a BPM and SOA for our long-term EA modernization. It had to be robust, scalable, secure, standards-based, and open to last and meet our long-term vision. Start Small: Our first production system on was the Local Area Warrant System (LAWS), which was completed in less than 6 months. Move Fast: 4 additional systems (On-line Citation Inquiry-Payment Systems, Probation Web-based Criminal Conviction Assessments System, JCAD (mobile CAD interface), District Attorney CyberLaw Case Management System and Adult Probation CMS) were deployed from 2010-2011. With the tightening budgets, we had to move from a waterfall methodology to an agile development model. When we first started our modernization project, there was not a comprehensive technology training program in the county, and the technology skills of the county workforce varied greatly from department to department. One of the key benchmarks we set for ourselves early on was to dedicate resources for SOA. We then established a structured project team directly supported and sponsored by the CIO. Additionally, we used an agile development methodology, which required a broader education process to ensure all stakeholders knew what to expect as we rolled out capabilities. The project team consisted of core IT staff and subject matter experts (SMEs) matrixed into the project team throughout the project. Key members of this team also sit on the Governance Board that manages change management, project scoping, budgeting, and service-level agreements from both a business and IT perspective. Our Change Management Board approves any changes submitted by the business.
5. Please list the specific humanitarian benefits the project has yielded so far. :
IJIS provides a Web-based system to link over 650,000 residents, 6,600 users internal users, 18 agencies countywide and other law enforcement systems nationwide. After implementation, San Joaquin County realized the following overall benefits: Adult Probation manages 15,000 active probationers and links to 7 separate systems online through 24 active interfaces; management of approximately 240,000 court cases and related information for the Probation Department; county police departments save $20,000 annually in license fees due to reusable integration; new interfaces were built in 1/6 the time compared to mainframe, saving 20 weeks per interface; 25% less officer time spent on non-productive activities (* 200 = 40 FTEs time being utilized more efficiently); 500 daily citation payments online, benefiting residents (>$500K annually); 100 daily probation assessments now automated (4,000 average records accessed daily); sharing of the data now averages over 30 million transaction annually; collaboration available with state and national systems with web service interfaces (now >800 transactions daily); development cycles from 12 to 6 months initially -- now 3-month cycles (saving over 12 Full Time Equivalent developers); going green, cutting printing by an estimated 1 million pages per month; end-to-end access for field personnel (e.g., mobile access to officers) coupled with the efficiency gains from all end users versus old mainframe access points; average access times reduced to < 3 seconds from hours; secure and trustworthy solution with new on-site/field access; single view of the operation versus mainframe multi-application access; and reduce or eliminate risk of wide systematic failure. The San Joaquin County modernization initiative has been recognized by California AOC as a benchmark justice modernization effort, and has also been recognized by CIO 100, Government Computer News and other significant awards.

Please provide the best example of how the project has benefited a specific individual, enterprise or organization. Feel free to include personal quotes from individuals who have directly benefited from the work.

Our IJIS program has met all its milestones on time and budget, and realized our strategic objectives of: improving county service delivery; expanding county services; realizing efficiencies. This modernization effort led to 5 new systems going into production: JCAD LAWS Interface (November 2009); On-line Citation Inquiry-Payment Systems (Feb 2010); Probation Web-based Criminal Conviction Assessments System (September 2010); District Attorney CyberLaw Case Management System (May 2011); Adult Probation Caseload Case Management System (Aug 2011). New capabilities include: integration with state and federal systems (using NIEM standard) in real time, mobile interfaces for police vehicles and call centers, and secure self-service citation system for residents. With the move to BPM and SOA, we can now make interfaces in 4 weeks, when it took us 24 weeks on the mainframe. And these new interfaces are also much more productive for the end users. After the LAWS went into production, we are continuing to build out capabilities with 4.5 FTEs augmented by SMEs when required. Our stakeholders span the residents of San Joaquin County, Sheriff's Office, Public Defender, District Attorney and Probation Department, as well as other local, state and national law enforcement entities. The new systems now supporting them are Local Area Warrant System (LAWS), On-line Citation Inquiry-Payment Systems, Probation Web-based Criminal Conviction Assessments System, District Attorney CyberLaw Case Management System, and the Adult Probation Case Management System (mainframe replacement). We also regularly work with state and federal entities to promote and collaborate on best practices. The San Joaquin County modernization initiative has been recognized by the California AOC as a Best Practice Implementation that not only provides continued value to San Joaquin County, but also a potential road map for success statewide. This program has recently received numerous awards and recognition.