

2009 NASCIO Recognition Award Nomination

Kansas Information Resource Management System



Category:
Enterprise IT Management Initiatives



Department of Administration
Division of Information Systems and Communications

Executive Summary

The Division of Information Systems and Communications, also known as DISC, is committed to excellence in customer service, providing IT services and products that our customers need and want at the lowest cost possible. DISC is a fee-based organization best known for serving state government. However, our customers also include local governmental organizations such as city and county governments, education, health care, and law enforcement agencies throughout the state. Providing the best possible service to our consumers enables them to better serve the people of Kansas.

DISC's efforts to evolve and improve the way we do business began at the beginning of FY06. An automated workflow tracking and billing system known as the Kansas Information Resources Management System (KIRMS) began operation. The system offers many benefits, including automating critical processes across DISC bureaus and state agencies by replacing numerous manual and home-grown systems. KIRMS also improves cost allocation and time reporting systems which provides information to analyzing workflow and staffing needs.

KIRMS is an important system that has had a significant long-term effect on our ability to satisfy customer requests. KIRMS facilitates efficient processing of a high volume of work requests - approximately 6600 work requests are processed through the system on an annual basis. As a result, we estimate that 12,800 onsite labor hours are dedicated to completing these work requests annually.

The implementation of KIRMS provided DISC with automated processes for entering work request information, scheduling and dispatching technicians, generating billing information, and gathering a centralized repository of data for reporting needs. KIRMS continues to be improved and enhanced as needs are identified.

Description of the Business Problem and Solution

Problem Statement

DISC provides centralized services in the areas of telecommunications (voice, data and video), centralized computing (mainframe, UNIX, Windows, and storage management) to units of state government. DISC also provides basic IT support for smaller state agencies, county and local agencies, law enforcement agencies, police departments, state universities, newspaper offices that are located in the capitol complex public libraries, and various Boards across the state.

DISC recovers its costs through various fees and rates using an internal billing system. The State of Kansas was using a Billing process and a separate Telecommunications Service Request (TSR) for automated work orders that was very inefficient. Specific inefficiencies were:

- TSR had no automated process to send manually-entered data via email
- Formalizing customer requests often required an iterative and time-consuming process between TSR staff and the customer
- Users had to manually keep track of where a TSR was in the process
- Workflow was communicated verbally
- The Billing and TSR Systems did not share data such as customer information or inventory and required re-keying of information
- No user interface aids existed to assist with data validation or minimizing keying
- Management reports were inadequate
- No uniformity between the systems in behavior or look and feel
- Legacy systems were composed of multiple homegrown and third party applications on a variety of platforms and servers
- Inventory was not directly related to the TSR System.

Barriers and Challenges

- Training 50+ internal users and 500+ external users on a new system
- Cost recovery information was separate from the work request and implementation process which resulted in inadequate billing and incomplete reports.
- Data conversion was complicated due to the variety of data sources of multiple legacy systems. Data sources included paper, spreadsheets, databases and flat files.
- Redefining the current workflow process

Opportunities

- Single-point-of-entry environment that eliminates redundant data entry and fragmented systems
- Speedy customer access to work order request information

- Reduced processing time by streamlining processes
- Increased accuracy
- Improved intra and inter department communication
- Improved ability to monitor day-to-day operations
- Better inventory control
- Establishing accountability for service utilization
- Increased ability to audit outside billing sources
- Accurately allocating costs to the appropriate entity
- Providing quick access to current and historical information
- Fully utilizing automated cable record management eliminated maintenance of multiple un-linked spreadsheets
- Help desk operations and trouble call analysis
- Provide fast access to information for ad hoc reports and queries
- Electronic mail

Assessment and Decision Process

DISC's goal was to select and implement a proven browser-based telecommunications management information software solution. This was also an opportunity to establish a long-term partnership with a proven telecommunications management vendor.

In March of 2004, DISC issued a Request for Proposal (RFP) for the procurement of a Telecommunications Management Software System for the Department of Administration with a closing date of April 21, 2004. DISC reviewed numerous Technical Proposals submitted by vendors.

The vendors were required to demonstrate:

- Experience with telecommunications applications
- A product with a robust set of applicable product features
- The ability to utilize web technology to improve service and reduce operating costs
- Thorough capability to assist in the conversion, installation, training and on-going support processes
- Commitment to technologies that would enhance the useful life of the system

Solution

DISC reviewed the Technical Proposals for product costs, licensing costs, maintenance fees, recurring and one-time costs, training and support. DISC also viewed numerous demonstrations of vendor software solutions. Following this extensive evaluation process, MySoft was identified as the software of choice. MySoft is a software product created by Compco, a privately held corporation. When the software was implemented in the DISC environment, it was re-titled as Kansas Information Resource Management System (KIRMS).

Compco not only provided the software solution, but was also selected as the project implementation partner. They provided a manager for the duration of the project. The following is a breakdown of the project costs:

Description	Amount
Data Conversion	\$5,000
Implementation Services	\$20,000
License Fees	\$183,800
Travel	\$4,000
Software Maintenance (10-yr period)	\$276,000
KIRMS Administrator Salary, including fringe	62,000

DISC staff also contributed hours towards the project during their regular working hours which reduced overall project costs.

Work on the project began soon after acceptance of a Final Offer for Services from the vendor in June of 2004. Implementation included acquiring and setting up hardware, loading legacy data, documenting, training, and user acceptance testing. The software was deployed to Production in July 2005.

DISC established lists of internal and external users based on legacy data. Users received information detailing training and implementation dates for the software. In addition, a PowerPoint presentation was published by DISC, and detailed the use and functionality of the software.

Significance of the Project

With the implementation of the KIRMS system, customer service was greatly improved due to system efficiencies and increased communication.

Communication: Customers are notified automatically through email when Customer Service receives the work request or trouble issue. Monthly billing statements are sent to customers during the billing process via email with a link to view their billing statement. Billing statements are posted to a web site and include summarization of the detail charges. As a result, our customers have access to their statement immediately after the billing process is complete.

System Support: The system operates in a multi-user environment on a 24/7 basis and handles concurrent users without system degradation. Backups are performed while users are accessing the system, and copies are stored offsite, for disaster recovery purposes. Transaction logs are generated every 30 minutes allowing for point-in-time recovery of data.

KIRMS has incorporated third-party tools and third-party supplied data. They are Cosmos, TeleTech files and Crystal Reports. Cosmos is used to create, export and modify the KIRMS database records. The vendor also used Cosmos to assist with rewriting many of the background processes and billing processes executed within the KIRMS software. TeleTech provides Area Exchange Information which is uploaded to KIRMS, and vendor processes use the information to assist with the billing process for calls. All reports delivered by the vendor were designed using Crystal Reports. Custom management reports continue to be developed using this software tool.

Management Support: The Review Step Processing work flow assists managers with work load distribution, task assignment and service request monitoring. Task assignment is communicated automatically through email notices after the task has been assigned to a technician.

Expandability: Early in 2008, the vendor provided a GUI development tool called Mpower. Mpower allows DISC to customize the delivered software and streamline processes. Mpower's advanced features provide a method of customizing screens, changing field labels, adding edits to fields, adding new user fields, creating email templates, and customizing code and processing within KIRMS.

Late in 2008, DISC undertook a major infrastructure replacement project. As that project has progressed, KIRMS has facilitated network management activities by storing details and descriptions of the equipment. The flexibility of KIRMS enables us to create custom code to enforce naming standards for the different network components.

Future Growth:

E911 - Today, KIRMS is capable of interfacing with third-party E911 software. The vendor plans to implement E911 capabilities within KIRMS as an additional module.

GIS – Both the vendor and the third party Area Exchange Information provider plan to add GIS capabilities to KIRMS. The vendor will be adding location tracking information to assets and inventory within the software. The Area Exchange Information provider will offer a product that will extract zip code from the KIRMS system and create a geographic link for phone number.

Benefits of the Project

Impact of Project

- Integrated system for billing and work request
- Benefits customers – fast response to trouble issues and work request
- Technical and Communication Managers – automated workflow, task scheduling, resource logistics, and improved data quality
- Technicians – ability to access work request remotely via laptop

Outcome from Project

Before	After
<ul style="list-style-type: none"> • Help desk calls were documented in a variety of ways (email, phone, paper) • Workflow did not exist. Work was transferred to next person via phone calls or email • Poor data quality • No accountability for completing work request • Inventory was not adequately tracked, and was sometimes unaccounted for 	<ul style="list-style-type: none"> • All help desk calls logged in one central system • Workflow is automated through Review Step Processing • Improved Data Integrity as a result of validations and naming standards • Ability to easily monitor work request progress • Inventory is tracked from the time of ordering through physical use or installation

Types/Impact of Benefits

The system prevents unauthorized access by using strong passwords and allows the system administrator to define which applications a user may access. The system also provides menu/application level security.

KIRMS allows a manager to schedule multiple jobs in the same geographic vicinity which saves on technician time, fuel costs and therefore, taxpayer dollars.

Financial ROI (Cost Savings due to KIRMS implementation per year):

Lotus Notes License Maintenance	\$2,475
Paper	\$500
Shopkeeper Software Support	\$100
Install Technician Secretary Salary, including Fringe	\$34,000
Lotus Notes Administrator Salary, including Fringe	\$80,000

Non-Financial ROI

- Ability to restore system
- More efficient office moves
- 24/7 support
- Improved Data Integrity
- Secure customer access to data
- Improved communication
- Help Desk operations and trouble call metrics
- Increased efficiency via better distribution of workload
- Improved turnaround time on customer requests