North Dakota Highway Patrol

CASE RECORDS MANAGEMENT SYSTEM
AND
IN-VEHICLE REPORT WRITING

September 2005

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Project Name: HP Case/Records Management System and In-vehicle Report Writing

Project Short Name: HPCRMS

Agency: North Dakota Highway Patrol

Business Unit/Program Area: Field Operations, Administration, and Law Enforcement Training Academy

Date: Start Date: September 2005; Target Completion Date (Wrap-up of all post-implementation work) June 2006

Project Description:
The Highway Patrol would like to implement an off-the-shelf, UCR compliant Case/Records Management System with both online (desktop and wireless) and offline field reporting. The system would also assist the Highway Patrol to move towards paperless case file management by integrating photos and other information into the system.

RMS (Records Management System) and field reporting systems will work seamlessly over the mobile data network to provide troopers with detailed information to complete their stop. Also, more critical information is available while en route to the scene of an emergency. This project would give troopers more information to do their jobs and increase capabilities. In this era of heightened national security, it is paramount that our troopers have critical information at their fingertips. Accuracy and timeliness of data is crucial in keeping the state of North Dakota safe and secure.

A newer feature of many off-the-shelf RMS packages is crime mapping. Community-oriented policing is creating the demand for targeting and reducing crime and crashes by using mapping tools to access, display, and analyze incident data. This data typically includes incident locations, known offender addresses, landmarks, police jurisdictions, and other location-based information. The capability to integrate crime and crash data with Geographic Information System (GIS) software and data layers enables law enforcement personnel to establish patterns and trends. This information allows officers to be deployed where they are most needed. The spatial distribution of incidents will allow the department to maximize the use of departmental assets to satisfy the ever-growing demand for department services.

Business Need/Problem:
The Highway Patrol has outgrown its current case management system. The current system is seven years old, is not UCR compliant and does not have the reporting capabilities to produce time sensitive reports. While the system does provide in-vehicle field reporting, it does not provide for “off-line” capability. The Mobile Data system has many low to no coverage zones. If officers are outside the coverage area, they are currently unable to complete any reports. Because it is unlikely there will be total

seamless mobile data coverage in the next few years, any offline data collection system is critical.

As the CJIS effort within our state has intensified, the HP began to analyze the output of our current system and what it would take to link it to the hub. While there are common data elements between the systems, our system is lacking several items. We have a unique coding system that is used on case and incident reports as well as field contacts. Even name information is different; for example, our system does not have a field for suffix – a suffix like Jr. is stored in the last name field. These differences would make searching the hub cumbersome.

Solution:
The HP created an internal workgroup to analyze what elements and procedures the HP needs in its data collection system. The group was able to classify the elements into three main categories: requirements, electives, and individual requests. The HP identified two possible solutions: purchase a CRMS package or use LERMS.

The Highway Patrol, after evaluation of the alternatives, has chosen to purchase Motorola's NetRMS and Cruiser application. It was determined that this system reasonably met our data needs and also met our budgetary constraints. Pricing was attractive as a result of the CJIS state contract. The system will facilitate our move to a UCR based reporting system and also provide both online and offline in-vehicle report writing capabilities. Because it is also the product that CJIS has implemented, it will easily interface with the CJIS hub.

FIT with HP's Mission:
The mission of the Highway Patrol is to provide public safety through high visibility, enforcement, and education. A goal of the new HPCRMS is to provide timely reporting to management and help them identify problem areas and schedule the resources to enforce them. One of the key features of the new HPCRMS will allow for offline roadside report writing, increasing visibility to the motoring public.

Cost Benefit:
Benefits of implementing an RMS:

- The HP will be able to compile and disseminate more information rapidly, while increasing real-time, accurate, secure information flow to the CJIS Hub. This benefits all law enforcement agencies statewide by providing access to HP information.
- Provide additional system capacity for anticipated future growth of the quantity of information.
- Improve timeliness of management reports.
- Minimize data handling by the officer entering information on-scene.
- Develop consistent reporting.

Benefits of field reporting are:

- Enables officers to work in proximity to the roadways instead of having to go to an office to complete their reports. This benefits not only the HP with increased efficiency, but also the citizens of North Dakota by the increased visibility and shorter response times.
- The additional information provided by the technology will improve trooper safety by providing information to the field faster in emergency situations.
- Increased data collection at the field level will continue to allow our traffic stops to be paperless. The trooper can write both citations and field contacts online; this allows the data to be available immediately to the other troopers working the state. With our current system, 78 percent of our citations were done online; with the addition of a more stable, expandable system, that number can easily increase.
- Enhance data integrity.

NetRMS Costs:

Item	Estimated Cost
NETRMS	$106,375
NETGEO	$5,750
Project Management	$25,800
Cruiser	$100,625

Alternatives:

Alternative #1: Other RMS package

When the HP began its quest to find a new records system, we contacted several other law enforcements agencies to find out what packages were being used and what problems they were having. The package that came to the top was Intergraph. Intergraph offers a complete CAD, RMS, and field reporting system that would have more than met our needs; the main deterrent was the price.

Other RMS Package:

Item	Estimated Cost
RMS	$450,000
Field Reporting	$175,000
Project Management	$30,000
Yearly Maintenance	$50,000

Alternative #2: CJIS LERMS

CJIS LERMS currently offers records management software for a per officer cost. A drawback is that the current version does not have field reporting capabilities. At this time the HP does not feel that it can give up ownership of its main reporting system to a system that is governed by a separate group. The Highway Patrol covers anything from accidents to basic traffic stops, we also handle weight enforcement and several federal programs, so our data and reporting needs change. We feel that move to CJIS LERMS would hinder us at this time.

CJIS LERMS

ITEM	Estimated Cost
Biennium cost for 136 sworn officers ($25/mo)	$81,600

Project Risks:

RISK EVENT	POTENTIAL	IMPACT	CORRECTIVE ACTION	ASSIGNED
Cost Over-run	Medium	High	Review scope, limit changes to scope; possibly remove small tasks.	Project Manager Project Team
Deadlines not met	Medium	High	Find and correct problem. Assign more personnel to area(s) affected.	Project Manager Project Team
End User Buy in	Low	High	Identify areas of concern. Address each area with training.	Project Manager
Scope Changes	High	Medium	Convene workgroup to rate the change/ changes based on need and cost. If needed, incorporate changes into scope through impact of project change form; update costs to reflect new budget.	Project Manager