Document Title: COPS, Technology Research and Development for Community Policing: Arlington Police Department, Final Report

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Document No.: 183204

Date Received: June 26, 2000

Award Number: 97-IJ-CX-K005

FINAL REPORT

presented to

The NATIONAL INSTITUTE OF JUSTICE

COPS, Technology Research and Development for Community Policing

ARLINGTON POLICE DEPARTMENT

Intranet / Briefing Workstations

Submitted March 9, 2000
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ABSTRACT

A challenge facing police agencies today is the ability to comprehensively provide useful information to the right segments of the organization at the right time. Most police agencies began using computer technology long ago as the primary tool to enhance their information capabilities. However, accessing the myriad of databases and computer systems to extract useful information has turned into a monumental task. Such was the problem at the Arlington Police Department that prompted creation of the APD Intranet.

The concept is simple and direct. Useful information is critical for effective community policing and a high level of service to the public. Most police records management systems (RMS), including ours, do not provide easy access to valuable information, especially for employees without the skills or time to sift through multiple databases. In addition, most police departments, including our own, use communication methods that are fragmented, unreliable and inefficient. An excellent example is the traditional patrol briefing "ritual". We believe that the time spent in briefing is unproductive in that officers rarely receive the type of information that will assist them with problem solving in the community.

Our project provides officers with computerized briefing stations and a multi-faceted computer program that provides officers with information critical to problem solving and beat management. The briefing program resides on a departmental Intranet and consists of many components, including:

- *electronic mail - written communications internal and external to the department*

- *briefing sheet - provides daily administrative and operational information*

- *beat inquiry - provides crime and calls for service data on specific beats*

- *RMS inquiry – ability to search names, vehicles, property, incidents, etc from our RMS system,*

- *decision support system - identification of potential problem areas*

- *beat management - tracks the planning and resolution of community problems*

BACKGROUND

In response to the problem, the Arlington Police Department secured a Federal Grant to develop an Intranet. Using funds provided via the National Institute of Justice, COPS Technology Research and Development Partnership program, we were able to hire a computer programmer and developed the Intranet in-house.

The original focus at the outset of developing the Intranet was to address the unique information needs of patrol officers as they prepared to "hit the streets" at the beginning of shift. The intent was to replace or supplement the traditional patrol briefing or "roll call" with a brief session at a quick, easy to use computer application...i.e. the project name "briefing stations". During the computerized briefing, officers would easily access a wide variety of information relevant to that officers' beat. The goal was to provide officers with the ability to access and analyze information specific to their area of responsibility rather than rely on generic reports.

As the project developed, it became apparent that the Intranet could provide value to police personnel in many other assignments. Policing today demands informed officers and employees at all levels of the organization. This need extends to a centrally managed repository for large amounts of resource materials such as phone lists, general orders, penal code, policy / procedural manuals, etc.

TECHNICAL APPROACH

The APD Intranet is essentially made up of three components or layers: the presentation layer that appears on the desktop, a "middleware" layer that supports communication between the presentation layer and the database, and the databases that contain the information being accessed.

The desktop or presentation layer viewed by the user on his computer screen is composed on static HTML pages. HTML is an "industry standard" and is completely and easily replicable.

The "middleware" layer was created using a product called "Cold Fusion," a complex program unique to the application and databases accessed. This layer, while completely replicable, provides more of a challenge because of the technical skills required.

The APD Intranet accesses several databases to provide information to the user: they include MS Access, SQL Server and Oracle. Every component of the Intranet is completely searchable by keyword, using Verity.

The Intranet is accessed through any of the Department's 325 personal computers using MS Windows Internet Explorer.

SUCCESSES

After its first full year of operation the APD Intranet is responsible for a multitude of successes. Three significant examples are 1) linking of data systems, 2) the frequency of Intranet use, and 3) Intranet's ability to support problem-solving efforts.

A police department's records management system (RMS) is only one part of the total information picture. There are multitudes of databases existing separately from the RMS. Even if they do exist on a network, it is extremely inconvenient and time consuming to mine through all these data sources. The Intranet solves this problem with a component called the Beat Information Gateway (BIG). The BIG system can deliver virtually all useful information to the officer with one inquiry. Additionally, the Intranet serves as a web-based query tool for essentially all RMS files...names, vehicles, incident reports, property, jail inmates in custody, mugshots, and much more. The Intranet is extremely flexible and allows an employee to customize reports for beats or expand them to the entire city. With the click of a mouse officers can analyze crime trends, map hot spots, review sex offender files, update beat management profiles, and conduct a variety of other information inquiries. By accessing the Intranet employees can find out about community meetings, registered sex offenders, problem-solving projects, and a variety of other information that didn't exist on any database prior to the Intranet. The Intranet helps to resolve the problem of fragmented databases and information sources.

No information tool is effective if it isn't used. Prior to the Intranet officers were reluctant to conduct their own data searches. They either waited for the information to be delivered to them, or in most cases, simply did without. There were two very good reasons for this reluctance to gather important information— the officers either didn't have the time or the skills to conduct the search. The Intranet has corrected both of these problems. It delivers information fast and easy. The Intranet has the capability to customize information. Front-line employees have neither the time nor the inclination to sort through reams of data to find information specific to their area. Because employees can set personal user profiles the Intranet sorts information automatically...utilizing "push" technology. Officers can indicate that they are only interested in viewing information relative to their beat and shift. The system knows based on the user log-in that a particular user for example only wants to view information for the night shift in beat 220. Specific information is now "pushed" to that officer and he does not have to "surf" through information that is not relevant to him. In short, the Intranet is an easy source of valuable information that can be sorted by time, date, and geographic location.

A survey of users indicates that 80% access the intranet at least three times per week...25% use the intranet three or more times per day. The system resides on

network server and is accessed through a web browser on any departmental computer in any of our six facilities

The Arlington Police Department is committed to employing problem-oriented policing. The Intranet supports this effort with its COPSOLVE component. COPSOLVE allows officers to electronically report progress on their assignments so supervisors can review and manage their work, 24 hours a day. Additionally, the database is searchable by the type of problem, allowing officers to see what other have done when faced with the same situation.

While the Intranet benefits the entire department, the primary benefactors of information sharing across shifts and geographic boundaries are the citizens of Arlington. Information helps reduce crime, and reduced crime equals fewer victims. The synergy created through this tool that provides virtually instant citywide communication is remarkable. Crime trends are easily identified through the Beat Information Gateway (BIG) component, and are promptly addressed through the COPSOLVE component. Crime bulletins, complete with mug shots, are posted to aid officers in solving cases and to help protect personnel from dangerous individuals. A team of officers, detectives, analysts, and supervisors now targets criminal activity instead of individual officers duplicating efforts in isolation with sporadic success. Citizens in areas surrounding Arlington also benefit when detectives are able to immediately share intelligence with other agencies on time-sensitive cases.

All employees, regardless of computer skill level, can provide comprehensive service to citizens more rapidly than ever before. Close patrols or vacation watch requests are easily entered and instantly communicated to the beat officer the moment he signs onto the system

Recently, the Arlington Police Department was honored to present the Intranet at the Police Executive Research Forum's annual Problem-Oriented Policing Conference. According to, Dr. Craig Fraser, PERF's Director of Research, the APD Intranet is one of the most advanced police information tools in the world. Such comments are prompted because the APD Intranet fills a tremendous void. It places the power of information technology and data mining at the fingertips of every person in the organization, regardless of their computer skills.