

IACP TECHNOLOGY CLEARINGHOUSE



Law Enforcement Technology Program Survey

Agency Name: [Charlotte-Mecklenburg Police Department](#)

Technology Program Name: Police Master Information System

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Agency Size: Total Sworn-1386; Total Civilian-424

Agency Type: Municipal Police, County Police (consolidated)

Technology Program Status: Department Wide Permanent Program

Mobile Hardware Type and Quantity: Laptop-1300

Printer: n/a

How is data transmitted from the Field to the Station? Wireless

How is data transmitted from the Station to State and Data Collection Authorities?

Paper

Funding: COPS MORE 95 and 96 grants, Local matching funds, Local additional funding

Hardware Manufacturers: [Digital](#) VP575-Laptop computer workstation; [Sun Solaris](#) 4000-PDB Server; [Compaq](#) 6000-Servers (Network); [Dell Optiplex](#)-Desktop computer workstations; [Compaq](#) 6000-Application Interface Server (Mobile Data System); [IBM](#) ES9000 & [IBM](#) 3090-Legacy Mainframe

Software Manufacturers: [Oracle](#) - Offense reporting, field reporting, and future alert contact network; [Microsoft Office 97 Suite](#)/MS Exchange - Correspondence, E-mail, & Presentations; [Microsoft Windows NT 4.0](#) - Operating System (Server and Workstation); [Oracle](#) - Internal Affairs System; CAD Manufacturer not yet determined.

Program Narrative Overview:

The Charlotte-Mecklenburg Police Department is approximately two years into the development of a master information system designed to promote and support our philosophy of Community Problem Oriented Policing (CPOP). The system is comprised of several key components, all of which are viewed as critical to the overall success of the information system and to the actualization of CPOP within this police department.

The first component is the Police Local Area Network (LAN). The LAN is being developed at this time with scheduled implementation set for early July 1998. The LAN is structured in a way that links all workstations within the headquarters building and workstations at 18 remote police facilities (district offices, training academy, service area centers). The LAN servers will be centrally located within the headquarters facility and will be connected with workstations in the headquarters and remote sites via a 10/100Mb Ethernet ATM Sonnet ring. The LAN will operate on a Windows NT 4.0 server/workstation platform and will utilize Microsoft Exchange/Outlook 97 as its E-Mail server/workstation application.

A second component of the system is the Mobile Data Communications System (MDCS). This component, scheduled for implementation in August-September 1998, will enable officers to receive their dispatches, perform queries of local, state and federal databases, perform the wireless transfer and query of police offense reports, field interview records and other local records, and will allow officers to utilize E-Mail (with attachments) in a wireless setting, thereby eliminating many of the traditional communication barriers which exist between members of the patrol force and investigators and administrators. The MDCS will enable officers to have field access to mugshot photographs. In addition, the MDCS will provide field officers with access to the legacy IBM mainframe computers. In essence, the MDCS has been designed to truly promote and actualize the 'mobile office.'

The KB-COPS records management system (Knowledge-Based Community Oriented Policing System) is a custom developed database which provides the department with advanced reporting detail and querying capabilities, based upon the elements of the North Carolina criminal statutes. The implementation of KB-COPS will occur in modules beginning in June 1998 and continuing through Summer 1999. The department has conducted a thorough needs analysis and design concept, including templates for the police offense report and supplemental individual offense categories (e.g. robbery, burglary, larceny, etc.). Oracle Corporation will begin the coding of this project in February 1998. KB-COPS, CAD and Field Interview will reside on a SUN Solaris 4000 PDB server.

The Computer Aided Dispatch (CAD) system will provide the traditional functions a CAD system provides, with several enhancements. The CAD will aid the department in becoming less 'call-for-service' driven and enable officers to manage time for problem-solving efforts through making appointments and call selection features. The CAD will provide address histories to officers in the field to enhance safety and provide the necessary background to identify and begin resolving problems. Also, the CAD will enable enhanced query capabilities as well as interfacing directly with the KB-COPS records management system. The CAD is scheduled for implementation in Summer 1999.

The Field Interview system will enable officers to directly input field interviews from laptop computers in the police vehicles and to query the field interview database when they contact a suspicious person. The effect of this system is that officers will be able to more easily and readily identify patterns among suspects in offenses and take appropriate measures to investigate them further or to refer information to investigators for proper follow up. The result is that fewer suspects in crimes will be able to slip through the net woven by incomplete, ill-conceived, or inadequate paper-to-computer collection systems. This component is scheduled for roll-out in June 1998.

The Future Alert Contact Network (FALCON) is a triggering/alerting software application being developed through a joint venture between the CMPD and the University of North Carolina at Charlotte. Its purpose is to use technology, more so than officers, to sort through reports and records to establish patterns, trends, particular offenses or incidents, contacts with individuals or suspects, etc. The application is based on officers setting database queries for any of the databases mentioned in this narrative. Incoming reports are filtered through FALCON and, upon a query threshold being met, FALCON sends an E-Mail, a page, or both to the inquiring officer. The officer can then respond accordingly to address an issue to which he or she is alerted.

The Internal Affairs Case Management component, which will automate all internal investigation forms and data, is designed to enable the department to conduct trend and other analyses of complaints in general or against individual officers, case dispositions, problem behaviors, and training and policy issues.

Important Technology Lessons Learned:

The Charlotte-Mecklenburg Police Department has undergone an exhaustive process of identifying and analyzing its information system and data needs. The needs analysis was conducted involving a majority of the department's patrol, investigative and civilian staff. It was conceived in the spirit of providing the data and system needs of those who make community policing a reality. While the system enables the management and direction of resources and data, and will provide the department with information necessary to fulfill its mission and obligations to the community, it is not a 'management' system.

Off the shelf software products were incapable of fulfilling the needs identified by the department. As a result, the department has had to look to software vendors for custom development of applications to meet its information system needs. This situation is likely to be the case for many departments throughout the country.

The results of the needs analysis are likely to be very applicable to police organizations both large and small throughout the country. The development of system components such as Field Interview, FALCON, and possibly Internal Affairs are also likely to be transferable in such a manner. However, the KB-COPS records management system and CAD are likely to have more limited transferability, such as throughout the State of North Carolina. Particularly with KBCOPS, the system is based upon the criminal statutes (and thus the elements of offenses) of North Carolina. Such an application can be modified to incorporate the elements of offenses of another state, however, these changes would require additional coding and programming costs.

The department has developed a very comprehensive information system plan and is proceeding in a fashion which places it at the forefront of technology initiatives and applications within police agencies. We open our doors to all who are interested in learning more about these initiatives. We believe that the lessons we have learned and the analyses we have completed can and should be available to other agencies both large and small.