

The Tactical Computer Project: A Team Approach

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*By Lieutenant Michael
J. Clancey, Alexandria
Police Department,
Virginia*

In 1993, Charles E. Samarra, chief of the Alexandria, Virginia, Police Department, created a Tactical Computer Committee to oversee the selection and implementation of mobile computers. Led by a sworn commander, the committee included both sworn officers and civilians. All departmental components were represented, including patrol, investigations, administrative services, technical services, records and fleet management. G. Thomas Steele, commander of Automated Services, was assigned to coordinate and guide the project.

The goals for the Tactical Computer Project were based on a department strategic plan guided by the National Incident-Based Reporting System (NIBRS) and NCIC 2000. Using information from this strategic plan and input from committee members, the committee established the project's essential elements: a pen-based, lightweight yet rugged mobile computer capable of full function outside the vehicle in a law enforcement environment.

The second step was to identify monies to fund the project, such as grants and seized drug assets. (Although local government supplied little or no monies, its support was critical to the project's success as it expanded well beyond the department's own capabilities and resources.) Once the minimum needs were established, requests for proposals (RFPs) were disseminated to find a vendor(s) that could provide technical expertise and facilitate implementation of the project. One of the committee's first decisions was to use a "turn-key" vendor that would be responsible for all aspects of software and hardware selection, as well as equipment mounting and mode of transmitting.

Committee members then set out to identify and select a vendor that would meet its needs. With completed RFPs in hand, the committee arranged interviews with the respondents to make sure each vendor offered Windows-based software and experience in projects like the Tactical Computer Project. Members also wanted to focus on what was currently available rather than what might be introduced in the future, having quickly learned that "future" could mean anything from months to years.

After a demonstration by each vendor and careful consideration of their current capabilities, committee members made their selections using a matrix rating system. UCS of Fort Lauderdale, Florida, was ultimately selected as the project integrator. Chief Samarra quickly endorsed the committee's decision, and committee members began working with UCS to

design the database and software displays to meet the department's current and future needs for UCR, NIBRS and NCIC 2000.

With UCS' guidance, the committee began a pilot testing phase to find a suitable mobile computer. Among the factors to be considered were the unit's weight, portability, pen-basing feature, attachable keyboard, durability and ability to run MS Windows 95. Five different products were field-tested over several months; the committee's final selection (again determined using a matrix rating system) was presented to Samarra for approval.

With the selection of the equipment, the committee had to figure out how best to use a mobile computer for out-of-car transmissions at check points, crime scenes and task-force applications. The department had applied to move to 800 MHZ frequencies, but FCC approval had not been granted. To implement the project as soon as possible, the committee looked to the private sector for a solution, finding it in Bell Atlantic NYNEX Mobile's Cellular Digital Packet Data (CDPD) system. Although the recommendation to move to CDPD was a dramatic departure from conventional law enforcement communications, the committee found that by adding a mobile modem to the PCMCIA slot, installing several new antennas and tuning micro-cells, the CDPD gave consistent and reliable coverage.

The next task was to determine the first application to be brought up using the tactical computers. It soon became apparent that the mobile data terminal (MDT) capability which was Samarra's first priority was the best place to start training on the new systems. Having had MDT systems in their vehicles, officers were familiar with the application and functions, and did not hesitate to work with the computers. The progression to more difficult applications (such as traffic accidents) did not occur until after users became familiar with the tactical computer.

Early in the MDT phase, officers discovered the value of an alert tone to notify them that their request had returned from the state and NCIC. The discovery and improvement eliminated the amount of time the officer had to spend looking at the computer checking for a return. As a further enhancement to maximize functionality and officer safety, several systems have since been equipped with text-to-voice capability. With this application, state and NCIC responses are read to them.

The actual installation of the computers in the police vehicles was an arduous process, requiring many hours of work and several modifications. It was important to meet officer expectations while taking into account the technical challenges of sharing space with dual air bags and essential emergency equipment. The ergonomics of installing the tactical computers a critically important part of the implementation process depended upon the full cooperation and assistance of the fleet management staff.

Team work and participation were key aspects of the project. Consistent with his participatory management style, the chief empowered a committee to select and implement an entire Tactical Computer System. Officers participated fully in the decision-making process and had a

strong voice in approving actions at every step of the project.

The department is presently using the computers for MDT and digital, paperless accident report writing, and is completing work on its incident software. Committee members are very proud of what they and the department have accomplished. Working with the Advanced Law Enforcement Response Technology (ALERT) Project and the College Station, Texas, Police Department, Alexandria was the first to transmit images car-to-car using different but compatible systems. First accomplished in May 1997, this feat was duplicated in June in an uncontrolled environment with the assistance of the National Center for Missing and Exploited Children.

Thanks to the support of Chief Samarra, his command staff, members of the Alexandria Police Department and city officials, the Tactical Computer System Project serves as a model for the team approach when dealing with emerging technology and challenging projects.

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