

Innovations in Policing: Using Technology to Enhance Officer Safety and Efficiency

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Innovations in Policing

The City of Delray Beach faced increasing demands for action to stop speeding in residential neighborhoods but lacked the resources to add more police officers to address this problem. The officers were writing plenty of tickets; there were just more violations than officers had time to write. Earlier attempts to address this problem through technology were thwarted after claims of technology advancements and vendor guarantees that never materialized. Yet after many hurdles the Delray Beach Police Department made remarkable advancements in efficiency and increased productivity to provide more traffic law enforcement with the same staff and at less inconvenience to the public.

The installation of computers in patrol vehicles has reduced the time officers spend performing routine tasks such as writing traffic citations and completing police reports. Remarkably, the Delray Beach Police Department's program not only enhanced officer safety and efficiency but also added no financial burden to the department's budget.

The original plan was to install purchased computer applications in each patrol vehicle, allowing the officer in the field to send and receive

Delray's implementation of the virtual partner program resulted in an 84 percent increase in traffic stops and criminal citations, and the average time spent on a traffic stop decreased from 20-25 minutes to 10-15 minutes.

information from the dispatch center via a mobile data computer, retrieve information on subjects and vehicles from the National Criminal Information Center (NCIC), and complete all reporting requirements from a field location. Unfortunately, the software initially purchased was

cumbersome, time-consuming to operate, and did not meet the department's or the officers' expectations. The department struggled to meet federal grant requirements and became increasingly concerned that the technology was actually decreasing the department's efficiency. At the department's request, the software vendor changed the application three times; but the department never experienced improvements and concluded that the vendor could not meet the agency's requirements.

Virtual Partner: A Mobile Technology Solution

The eventual solution to the problem was unorthodox and in most cases considered a major operational risk. One of Delray Beach's officers, a former technology executive who became an auxiliary officer after his company was sold, offered to design a user-friendly system. The department stated expectations and listed restrictions that were primarily driven by the lack of any additional funding. From there, the development of the program Virtual Partner began; it became the solution the department needed to secure the investment and make the technology the asset it was purported to be. It was the beginning of a remarkable tool.

Virtual Partner is an efficient, timesaving, easy-to-use application that increases efficiency and productivity in several areas. The software was designed and developed by those who stood to benefit the most from the technology, the police officers themselves. These officers, in their quest, exceeded the boundaries of ordinary operations by developing a technology that has incredible output in terms of efficiency, adaptability, productivity, and ease, at nominal cost.

The Virtual Partner application consists of four program components. The automated response system provides quick responses to queries made by officers to the NCIC and the Florida Department of Highway Safety and Motor Vehicles (DHSMV). Ever mindful of officer safety, the developers included a voice response function that verbally relays information in response to queries entered by the officers. In terms of officer safety, Delray Beach feels the voice response capability was a

major breakthrough. Using voice response, an officer can remain focused on the offender and the offender's vehicle without looking at a computer screen, thereby increasing the officer's safety and eliminating distractions.

The voice response provides the officer with specific information needed such as tag and driver's license status as well as color, make and model of the vehicle. The officers also customized the program to their needs so that it would eliminate unnecessary information and only relay pertinent information requested by the officers. The program confirms warrant hits by signaling the officer with an audible alert tone.

The program verbally relays back case numbers, dispatch time, and other requests made by the officer, as well as gate codes to any of the secured gated-communities. The system is also equipped with a two dimensional barcode capability that reads the driver's license information on licenses from other states that have a magnetic strip for so-called swipe capability. The information generated from any of these inquires can be automatically entered onto forms commonly used by police officers.

The capability of the program continued to develop after the officers determined the utility and performance they needed from technology. Through their efforts, several components to the system have been engineered that unequivocally changed Delray Beach's technology from a hindrance to an asset.

The Quick Ticket program, a separate component, automatically fills out a uniform traffic citation using the information returned from NCIC and DHSMV. The software calculates the fines and court dates and automatically enters this information on the citation form. All pertinent information is then printed on the uniform traffic citation. Because the officer is required to manually enter only the violations and statute numbers, the program reduces time spent on a traffic stop, eliminates errors, and produces professional, easy-to-read tickets.

The Quick Crash program imports NCIC and DHSMV information through the in-car terminals directly to state crash reports, producing a high-quality, readable, error-free vehicle crash form that eliminates the need for reports to be handwritten. This not only saves the officer time but also enables the citizen to acquire the completed report sooner. In addition, all of the state required information is tabulated and can be submitted electronically to DHSMV.

The Quick Map program provides an in-vehicle map of the call locations or any other selected locations and quickly displays a view of the area. This program is another timesaving feature for the officer by reducing the response time to a call for service through the rapid site locator provided

by the Quick Map program. This program integrates directly with Microsoft's MapPoint and Streets and Trips.

The Delray Beach Virtual Partner program and its components have increased officer productivity by automatically relaying information to the officer and automatically populating specific fields in the citations and reports. These strategic applications have resulted in increased identification of violators who are driving while their license is suspended, the recovery and seizure of more stolen tags, and the removal of more uninsured motorists from the road. After the department implemented the program, traffic stops and criminal citations increased 84 percent. The average time spent on a traffic stop decreased from 20-25 minutes to 10-15 minutes. Officer response time to calls for service has also been reduced.

As traffic stops have increased significantly, citizen complaints resulting from traffic enforcement have fallen. Delray Beach believes this is because drivers are detained for a much shorter time while the officer complete citations or vehicle crash reports. Although intangible, the lack of complaints suggests that there is better rapport between the police and the residents of the community.

The cost to the city to develop the software was \$37 per computer per vehicle. The additional revenue generated by the increase in fines, along with the increase in officer productivity and efficiency, made this system extremely cost-effective. But the ultimate payoff is increased traffic law enforcement in response to citizen requests and greater safety for the driving public in Delray Beach.

For more information, email: info@aps.us or call: (954) 354-3000

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