

Tomorrow's Public Safety Communication Today

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Today's public safety communication and information database systems are considered "island" technologies, as they do not communicate or share information easily. Tomorrow's public safety arena will require access to data stored on a variety of multi-agency systems. Gaining access to these database systems and routing information rapidly back to field officers will be crucial for success in the continued fight against crime. Access to all of these databases will be achieved through the use of intelligent gateways - the most important tool to come to public safety since the use of radios.

The second most important tool to come to public safety is wireless data communication. Officers anywhere should be able to access database systems and receive information rapidly. Officers today are limited to voice communications in the case of radio or data access to a single database with the mobile laptop.

Intelligent gateways, sometimes known as middle-ware integrators, provide access to police, municipal, court and other related databases. Wireless communication devices allow officers to communicate with the intelligent gateway regardless of their location in the field. Public safety today is in the age of real wireless communication, with vast information databases available almost instantaneously to all officers on the street, regardless of location or vehicle type (foot, bike or car). Geo-positioning that pinpoints an officer's location at all times is now available. All of these come to the officer through the wireless channel.

Tomorrow's communication device available today is the personal digital assistant, or PDA. PDAs comes in several sizes, ranging from just a few ounces to over 22 ounces in weight. The power of the PDA in public safety applications focuses on three prime elements: very low cost, easy transportability and the capability to do 10 times the workload with the appropriate software tools. The low cost makes the PDA affordable and applicable to agencies big and small, rural and urban. The easy transportability allows the PDA to be integrated into bike, foot and motorcycle patrol, as well as normal vehicle patrol.

Finally, the PDA comes with applications built into the system that allow the officer to pull information from databases such as the National Crime Information Center (NCIC), state motor vehicle records and multijurisdictional police databases from just one inquiry.

The officer receives information back on the screen of the PDA rapidly without waiting for the dispatcher to enter the information through the station data terminal. At the same time, the information being entered and retrieved by the officer is being pushed to and pulled from local, state and federal databases. The officer's ability to have this data leverages new and evolving technologies such as intelligent gateway software-Java-based servers, client Hypertext Markup Language (HTML) software and multiple Internet Protocol (IP) networks as the common transport. The power of these linked-software applications provides the individual officer with a total data library on his PDA. Regardless of the type of inquiry, a journal log is generated on the station's server as a safety factor for each inquiry made, annotating name, date of birth, license number or whatever information has been used by the officer to make the initial query. Should something go wrong in the field, other officers instantly have not only the officer's location, but also the same information the officer in trouble had requested.

Information is pushed and pulled wirelessly through intelligent communication gateways. These gateways control where the request is pushed, and control and guide information that is pulled back to the requester, ensuring that information is sent to other databases as needed. Police, parking, fire and other municipal databases are linked together. Security is established to ensure that only those with a need to know can access certain databases.

Mobile data today is provided at an affordable rate and can be used by agencies of any size. With the preparation of more and more applications for the wireless environment, the direction of wireless communications is continually expanding. What was once limited to RF verbal and cellular phone communications today is used for data transfer, satellite tracking, information sharing and a host of other wireless applications.

The end user is not required to have a degree in higher mathematics to effectively use the information at his fingertips. Communication is streamlined across the community. An entire multi-agency field force with their own PDAs can push and pull information pertaining to specific job activities while simultaneously benefiting all other departments as information is updated and modified in the course of day-to-day activity. The power of wireless communications and data will be in everyone's hands as they provide service to the community as a whole.

Imagine a police officer on surveillance checking plates without radio calls and receiving owner and address information for each of those plates. Another officer takes the PDA to a pawnshop and enters item information from inside the store, receiving instant hits on stolen goods. The parking enforcement officer, who today only writes parking tickets, uses a PDA to enter each license plate in his area. The information is sent simultaneously to NCIC, the state motor vehicle database and the local police database, searching for stolen-car hits. If a hit comes back, the enforcement officer will see a "Do Not Cite" comment flash on the screen of his PDA. Behind the scenes, an alert is sent immediately to the police dispatcher, advising him of the location of the stolen car. The police then dispatch

an officer or a tow truck to impound and recover the car. No unnecessary parking ticket is issued to be voided later, the police clear a stolen-car report quickly and the enforcement officer is doing far more for the city than simply writing parking tickets.

How can you make information more readily available to your officers? The answer lies in the power of shared data for the police officer, the firefighter, the parking enforcement officer and even the city building inspector. Information that might once have seemed unnecessary or useless can now be obtained and used in ways that unleash the real power of public safety.

Police officers today need the most potent data available to fight crime rapidly and effectively. The source of the information is through the intelligent gateway, and the ability to access that information is through the wireless PDA. With wireless products for the public safety agency only months away from being reality, the time to plan for the integration of these exciting new tools is today.

Editor's note: The author may be reached via electronic mail at d.atchley@gte.com. A wide variety of law enforcement technology resources may be found on the IACP Technology Clearinghouse Web site at www.IACPtechnology.org.

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