Crime-fighting on the go: Motorola and Western Australia Police

In 2006, Western Australia (WA) Police initiated an ambitious project to deploy a field mobility data solution to significantly increase the safety and productivity of officers in the field.

Equipped with new in-vehicle MW800 and MW810 computers from Motorola, which WA Police officers refer to as 'TADIS' (Tasking and Data Information System), field officers gain access to thousands of records stored on WA Police's centralised database. In combination with Motorola's Computer Aided Dispatch (CAD) platform, dispatchers direct up-to-the-minute information to first-responder officers as soon as it is available.

The new system enables WA Police to boost its database enquiries from 800 to more than 20,000 a day, equipping field officers with advanced information they need before engaging a criminal suspect or attending an emergency call. With the more recent introduction of over 400 of Motorola's MC75 handheld computers, 'TADISLite', mobile, bicycle and horseback officers have access to the same database information ensuring the overall system is even more effective.

WA Police is one of Australia's most technologically advanced organisations and is actively expanding the highly optimised data network it has successfully developed with the help and global expertise of Motorola.

Challenges

WA Police is directly responsible for the largest jurisdiction in the world, covering more than two and a half million square kilometres and supporting a population in excess of two million people. More than 2,300 calls a day are logged by WA Police's central dispatch, and relayed to more than 5,000 officers and 1,500 vehicles in the field.

Since vast expanses of Western Australia have a very low population density, WA Police's primary operations need to balance the demands of metropolitan policing with those of regional centres often located thousands of kilometres apart.

This scenario makes it critical for WA's police officers to be highly mobile, backed by a mission-critical communications system that gives them anytime, anywhere access to critical information.

WA Police Superintendent Lance Martin says the biggest challenge was to find a way to get the different communication technologies working together.

"As with any other mission-critical operation, the information we get needs to be quickly related to an incident in process so that it properly supports an officer in the execution of his or her duties," he says.

"From the minute a dispatcher takes a call and enters it into the CAD system, the system needs to work out the quickest route to action. In other words, do we already have information in the system relevant to the call? Does the suspect have a prior conviction? Where is the nearest vehicle to the emergency, and what information does the officer need to respond to the call?"

Solutions

The foundation of the system is Motorola's Premier CAD system, which, with its innovative components such as Advanced Tactical Mapping and Automatic Vehicle Locator, automates and simplifies the call management process. CAD transmits pertinent tasking information, completed by a dispatch officer, to the in-vehicle TADIS and portable TADISLite devices, custom-developed by Motorola for WA Police. This can include background information on an address or motor vehicle, criminal background information of apprehended suspects, and even mug shots of suspected criminals.

Throughout the greater metropolitan area (approximately 20,000 sq kms), information is sent across a purpose-built data network, running in parallel with a public 3G system providing coverage for handheld devices and throughout regional Western Australia.

"The system is intelligent enough to filter out instances of duplicate street names and addresses, for example, and the dispatch officer can then make a call on which is most relevant and which vehicle or field officer is best placed to respond," says Martin.

"We maintain an extremely comprehensive database on all known suspects, prior convictions, motor vehicle registrations and so on, so we're

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able to provide officers with information that not only helps them do their job better, but also makes it safer for them. Every record is instantly accessible via the TADIS and TADISLite devices, so field officers essentially have an extension of our complete database at their fingertips when they need it."

The system comes into play during and after a call as well. Any information entered into the TADIS is automatically uploaded to dispatch, providing commanding officers with real-time status updates.

"If an officer finds him or herself in a critical situation – a life threatening incident for example – a press of an emergency button on the radio handset links to the GPS in the vehicle or the handheld device and the dispatch officer. The officer's location is pinpointed on the CAD mapping system, and the closest available back up vehicle is dispatched."

If an arrest is made, officers can log in to a custody database directly from the TADIS and begin processing the registration of the person, reducing the time in the office, allowing them to be redeployed more quickly to the field.

Benefits

Since deploying Motorola's TADIS and TADISLite devices, WA Police has recorded significant productivity and officer safety advances.

Officer availability increased by 11 per cent, meaning more calls can be managed more quickly. There was also a significant increase in on-patrol arrests and summonses resulting in decreases in crime volumes. In addition, access to car license data in the field has seen more than 1,000 illegal vehicles seized in the first month of new unlicensed driver laws in Western Australia, and more than 2,500 in the months after deployment.

"While many of the benefits are tangible, others such as improved officer and community safety are equally important," says Martin. "The system has given our officers essential tools that help protect them in the daily execution of what is potentially a very dangerous and stressful occupation, and the flow-on benefits for the community are just as important."

Dr Michael N'Guyen, general manager, government and public safety, Motorola Australia, believes WA Police is running one of the most advanced communications networks in Australia today.

"This combination of voice, data and video technology represents the next phase of emergency services and public safety communications not only in Australia, but around the world, enabling closer governance of police activity, supporting new and active investigations, and most importantly, delivering the tools and information that save time – and lives – for both officers and the public they serve."