



Securing Police Communications Between Squad Cars and Headquarters

A Case Study in Network Security

OCTOBER 2006

THE STORY

The Altoona Police Department (Altoona PD), which originated in 1947 as a one-person department, presently consists of one police chief, ten full-time officers, and three part-time officers. Together, this team protects a Wisconsin suburb, the City of Altoona. This city's population is 6,698 (yr. 2000 Census) and land area is approximately 4.1 square miles.

In 1999, the Altoona PD integrated Mobile Data Computers (MDCs) within their patrol functions. The technology quickly became outdated and the department was recently awarded a grant to pilot TraCs software, a sophisticated data collection and reporting software application to streamline and automate the capture and transfer of incident data in the field. The department needed to purchase additional hardware and software to wholly pilot the implementation of the TraCs Suite and continue to streamline traffic patrol contacts and the clerical processing of uniform citations, accident reports, and other associated documentation.

THE CHALLENGE

The City of Altoona contracted with DCS Netlink, who helped them research technology available for use in the law enforcement squad car environment. This research quickly revealed that the technology they had in place was going to have a substantially increased cost due to technological improvements, making some of the equipment out-of-date and not easily obtainable. Ultimately, it was inadequate for Altoona PD's current and future needs.

In order to combat higher costs, the department purchased cellular data cards to easily access its TraCS software as well as other applications, including the Internet, remotely. This provided Altoona officers with a more cost effective and efficient squad car computer system. Implementing TraCS required the Altoona PD to purchase a new, secure server for hosting the application. They turned to WatchGuard to provide network security.

THE WATCHGUARD SOLUTION

After reviewing multiple hardware solutions, the Altoona PD and DCS Netlink selected WatchGuard's Firebox® X Core (X700 model) Unified Threat Management security appliance. Easy to configure and manage, WatchGuard's solution inspects network traffic at multiple layers to proactively block DoS and DDoS attacks, viruses, spam, worms, spyware, and trojans, as well as blended threats through a combination of Zero Day attack protection backed up by a signature-based approach.

The Altoona PD selected the Firebox® X Core™ because it provided the most enhanced security and monitoring capabilities for the sensitive law enforcement information being exchanged over squad car computers. The solution provides dual benefits by securely connecting the squad cars on the road, and also using the protection of the firewall for internal network users at the headquarters. Because of the Firebox X700's scalability, the department can also easily increase the number of users with remote access connections back to their central office as their network grows.

Altoona police officers are now able to not only better protect the network environment, but also monitor activity within the network. With increased mobile VPN security, the department can securely write tickets and reports back to the headquarters' database. Officers can also access the department's Record

Management System from the squad car, something other agencies cannot do without a substantial investment. Overall, WatchGuard helped secure the squad cars' wireless computer systems, making the field reporting process easier and better organized.

THE RESULTS

Through the implementation of its new, cost-effective wireless system, protected by WatchGuard, the Altoona PD accomplished two of the most important goals in law enforcement technology – efficiency and security. WatchGuard provided a critical piece of Altoona PD's comprehensive squad car data access system, maintaining security for the sensitive law enforcement information exchanged across its network, including the MDCs in the squad cars. In addition to increased security, the Altoona PD gained remote monitoring capabilities that were not previously available, even within its in-house computer network.

With WatchGuard's Firebox X Core in place, the department is now more vigilant in protecting its entire IT network, without adding more personnel hours. The Altoona PD has become proactive in addressing potential problems with Internet indiscretions and more effective when it comes to IT compliance and protocol policies. Almost immediately after DCS Netlink finished the installation, the department monitored several attempts to access its network. While the security breaches posed by these attempts would have been minimal, it was an eye opener as to just how vulnerable the police department's network had been.

In researching and developing its wireless network solution with DCS Netlink, the Altoona PD continued to focus on efficiency and security – within a very limited budget. Without the implementation of WatchGuard's

technology, the system would be missing a key element – the needed security to maintain the integrity of sensitive law enforcement information and its IT network as a whole.

Based on the success of the Altoona PD's TraCs trial, the department is hoping to model this solution to numerous other police departments who are also searching for a solution to this problem, but do not have the budget to lay out an extensive secure infrastructure.

For more information about WatchGuard Security Solutions, visit us at www.watchguard.com, or contact your reseller.

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ABOUT WATCHGUARD

Since 1996, WatchGuard Technologies has provided reliable, easy to manage security appliances to hundreds of thousands of businesses worldwide. Our Firebox X family of unified threat management (UTM) solutions provides the best combination of strong, reliable, multi-layered security with the best ease of use in its class. All products are backed by LiveSecurity® Service, a ground-breaking support and maintenance program. WatchGuard is a privately owned company, headquartered in Seattle, Washington, with offices throughout North America, Europe, Asia Pacific, and Latin America. For more information, please visit www.watchguard.com.

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