GTSI's Mobile Evidence Solution Brings Louisville Police into Digital Age

The Louisville Metropolitan Police Department in Kentucky was formed in 2003 from the merger of city and county police, creating a force of 1,250 sworn members dedicated to serving and safeguarding the 1.2 million people living in the metro area.

The two agencies had long relied on VHS-based mobile video evidence as a critical tool in pursuing their mission. But together, the aged, disparate tape systems employed by the force were beginning to tax the department's manpower, as well as its physical and financial resources. More than 15,000 VHS cassettes had been accumulated – video evidence that by law had to be kept for 26 months – crowding row after row of shelves and creating issues not only with storage but the costs associated with processing the continuously growing number of tapes, all while ensuring the integrity of the video evidence.

Explained Major Rodney Milburn, Commander of the Special Operations Division, the multiple steps required to administer the VHS legacy systems were cumbersome and time-consuming, drawing resources away from other police business. "Each tape was touched eight or nine times by different people as it went through the system, from purchasing and labeling the tapes, to storage and administration, to retrieving the tape and admitting it as evidence in the courtroom. And when you have 200 officers going to court every day, the number of people involved with

handling the VHS tapes becomes even more problematic."

Rather than continuing to repair the legacy VHS systems, the department sought to replace the analog equipment with computer-based, state-of-the-art digital technology, which held out the promise of higher quality sound and picture with less storage and handling concerns. To help them analyze, acquire, and implement a system best suited to their needs, the department turned to GTSI and its team of mobile evidence capture experts.

"We had a number of requirements that needed to be satisfied by any new in-car system," said Milburn. To begin, the camera not only had to withstand the rigors of police use, have wide angle field of view, zoom, and low light capabilities, but it also had to be compatible with the Panasonic Toughbooks® then in use as the department's principal mobile data computers (MDC). "We've relied on the Toughbooks for years," said Milburn, "and we had limited real estate inside the cruisers. Space quickly disappears after you put in the radio equipment, radar camera, laptop, printers, barcode scanners and more. So we needed a camera system that would take advantage of the computers that were already installed."

The clarity of the picture, making subject identification more reliable, was paramount, while audio was another key consideration. Any digital, wireless microphone system installed had to be sensitive enough to pick up sounds and voices from a distance, well outside the car, with little playback distortion.

Secure transfer and storage of the video files was one of the most critical requirements. "We wanted the ability to offload the video by different methods, especially wireless," said Milburn. Whatever the method, the system had to ensure that the integrity of the video file would be maintained during transference to a central repository. The file management system that handled the storage and retrieval of the video evidence needed to offer both security and ease-of-use. And judicial acceptance of the files, unaltered in a digital format and with an unquestionable chain of evidence, was crucial.

Working together to deliver benefits far beyond VHS

After listening to the various concerns and requirements, GTSI settled on the Panasonic Toughbook Arbitrator as the right system for meeting the

department's demands. Specifically engineered to streamline the process of evidence capture and documentation, the all-digital system integrates a high-performance camera and wireless microphone, both designed to perform in the most rugged environments. Video files are compressed into the MPEG-4 format for easy storage and fast transmission and secured to prevent anyone from tampering with the file, thus maintaining the integrity of the evidence.

Cisco provided the wireless network over which files would be sent to the department's servers, where Insight Video Net's Central Management System software enabled the efficient storage, organization, search, and retrieval of the digital files.

Only minor adjustments were needed before the systems were fully installed and operational. In particular, noted Milburn, "The battery charger for the microphone was initially in a position that took up space. GTSI and Panasonic flew in a representative from the factory to examine the issue and redesigned the holder to better fit our cruisers. I've never been involved in an issue before where the vendor brings in someone from the factory to reengineer a part to quickly meet our needs."

GTSI worked with the department to set up the triggers for the system – to begin recording when the lights or sirens are turned on, for example – and to make certain that each step of the evidence capture process thereafter was operating at peak levels. Installed software ensured that, once the video was captured, no changes could be made by the officers, but bookmarks and notations could be attached, adding relevant information to the files before it is shipped off wirelessly to a departmental server. There, the video files were organized and stored, and were retrievable by any number of search criteria, whether date, time, vehicle, or incident, among others. Access to the files was restricted and those with the rights to remove files severely limited, thus further safeguarding the evidentiary integrity of the files.

Gone were the bulky tape cassettes and the cumbersome and costly process of administering them. In their place were high quality digital files, seamlessly uploaded from cruiser to server over a secure wireless network, eliminating the need for the numerous intermediary steps required by the VHS system.

Noted Sandy Sundberg, Senior Systems Analyst in the department's Metro Technology section, "GTSI gave us options we hadn't even thought of, and worked to modify the system to surpass our original expectations." In addition, GTSI conducted a series of "train the trainers" seminars to bring users and departmental installers quickly up to speed. "And we discussed with GTSI the development of a series of briefing videos, giving our users additional information, viewed whenever they wanted," added Sundberg.

More than 450 systems have been installed, with more on the horizon. Already, the solution has delivered to Louisville's law enforcement officers and prosecutors benefits far beyond VHS, providing an unbiased account of what actually happened during an incident, presented with stunning clarity. As a result, conviction rates are rising and complaints filed over alleged police conduct are being successfully mitigated. "Since we went live," Sundberg stated, "we have not lost a case in district or circuit court or before a grand jury, just because the video was thrown out as inadmissible evidence." GTSI's digital solution, he noted, is proving to be one of the most valuable weapons in the department's arsenal in meeting its mission of "service and integrity."

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