

TECH INSIDE THE GEAR: L-3 MOBILE VISION'S PATROLSOUT®

A dramatic new capability gives users the ability to stream live video, on-demand through a Web-based interface, from any enabled Flashback system

For years, many agencies have been utilizing the Flashback2 and Flashback3 in-car video systems from L-3 Mobile Vision, with excellent results. Now, L-3 has added a dramatic new capability to these existing systems through the release of the PatrolScout® software package: the ability to stream live video, on-demand through a Web-based interface, from any enabled Flashback system. I'd like to take a minute to walk through some of the technical elements of PatrolScout, after having a chance recently to demo it and speaking with representatives for L-3, since those are a very real consideration in terms of adopting it into your own agency's systems.

ON-DEMAND ACCESS

PatrolScout is a map-centric, real-time situational awareness solution that enables streaming video (no audio) and transmits location and other information from the vehicle over existing cell-data infrastructure, be it 3G or 4G, on any existing network regardless of carrier. Access to this information is controlled by a password-protected Web application with definable privileges for easy compartmentalizing of access levels based upon command structure.

Information displayed includes the camera view, plus GPS location, speed, unit name, and more, through the Vehicle Viewer Live window available on-demand by selecting the unit's feed through the PatrolScout map interface, which in turn displays a live location for any unit.

The on-demand nature means that concerns over increases in cell-data charges should be relatively minimal – without constant streaming, bandwidth usage is limited to very small packets concerning the unit's location and other text-based information (approximately 200kb/hour for each vehicle). Three configurable streaming options offer different FPS and bitrate transmissions, ranging from consumption of 73mb per hour of streaming per unit up to 260mb per hour per unit, for further control over bandwidth utilization.

Connecting to the system is straightforward, as PatrolScout can be accessed from mobile devices (iOS version 4 and above, and Android version 2.3 and above) as well as from any network-connected device with a Web browser (Internet Explorer 8 and 9, and Firefox

version 19 and above are officially supported) – including MDTs which have that capability. There is no system limit to the number of streams that can be viewed simultaneously, nor the number of personnel who can be logged on at the same time. Your existing network infrastructure would be the only limitation, as each live stream does consume bandwidth.

Managing information about units is highly configurable as well. PatrolScout's interface lets you create logical groups and assign units to them, which in turn enables a customizable map view with the ability to highlight and display or not display a given group at any moment – useful in many scenarios, including those when a dispatcher is handling a large incident.

SYSTEM REQUIREMENTS

Hardware requirements for the system include a small dedicated server on which to run the PatrolScout software, which may either be a standalone or a virtual machine within another server. Minimum server requirements are a single-core Xeon with 2.0 GHz, 8 GB RAM, Raid 1, two 500 GB drives, and Windows Server 2008 R2 Standard, SP1.

No VPN is required, but one may be utilized if desired. Should the server go down, L-3 engineers will remote-access into the system to repair and restore functionality.

In-vehicle installation requires a Flashback2 or Flashback3 system, and an MDC with a minimum of a 2.0 GHz Celeron single-core processor, 1 GB RAM, and Windows XP SP3, but a configuration of a 2.4 GHz dual-core Intel processor with 4 GB of RAM and Windows 7 Professional SP1 is recommended.

STRAIGHTFORWARD IMPLEMENTATION

Video storage is still accomplished by the in-car Flashback system's internal storage; however, pre-recorded incidents can be streamed remotely if units are, for example, not able to return in time for a shift change and the supervisor wishes to review an incident. PatrolScout does not require ICV evidence management access privileges since it is a standalone Web application with its own rights and privileges, and it will work with NetMotion installed on agency MDCs. An always-on connection to the Internet is required for validation, which occurs every few hours.

Officer training requirements are minimal, since the PatrolScout client installed on the MDC is mainly transparent. Upon live view, officers receive a visual notification that someone is viewing their stream, and officers may also trigger a request to view their stream, which provides a notification to the dispatch center and also any supervisors logged into the system – helping to improve officer safety by giving more information than the standard



orange emergency button on portable radios, and potentially reducing the number of “false alarm” responses since the dispatcher/supervisor will be able to see what is transpiring without compromising safety, as a radio transmission might.

Overall, implementation is minimally intrusive upon day-to-day activities and relatively straightforward, especially since PatrolScout will utilize your existing mobile infrastructure and hardware for data transmission. A user-friendly interface for both the officer on the street and the supervisor/dispatch viewing the Web application ensures that compliance can be achieved with minimal additional training, and the high level of technical support available means that even if there were to be an issue with the server, L-3 will stand behind their product and ensure maximal uptime with minimal service interruptions.

