



Boundless Security Systems, Inc.

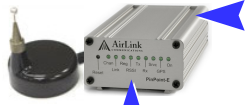
the communications bandwidth experts

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Ultra Low Bandwidth, *Boundless Security System™* Enables Mobile Surveillance Vehicles to Have 360° Panoramic and Closeup Views with Remotely Viewable Live and Recorded Video



Cellular CDMA or firewalled GSM, or WiMAX Modem

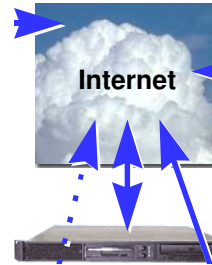
Many different digital video streams and recording internal to **Multi-Stream Video Servers** avoid heavy continuous traffic on wireless networks. Live and recorded video traffic is only on demand. A mere 256 Kbps uplink can carry 5 live QVGA video streams, each at 5 fps with moderate motion. Any broken wireless video connections are quickly re-established for moving vehicles.

Boundless' ultra low bandwidth, many-function, **Multi-Stream Video Server** provides a mobile **video base station** in each vehicle. It provides video digitizing for four CCTV cameras and optionally, video transcoding for two additional, MPEG-4 IP-cameras. It provides MPEG-4 video compression, many different video streams per camera simultaneously, video recording with much better quality than can be sent live, and communication of live and recorded video on demand. Mobile-originated / firewalled GSM networks that block access from the Internet to others' mobile servers can be used with the aid of Boundless' **Event Broadcast Server**. Optionally, a sleep mode greatly reduces total system power dissipation to save the vehicle's battery charge, and the engine can be started / stopped remotely via the system to recharge the battery.

Four low power, CCTV cameras can be used to give a continuous, 360° field of view. An additional, IP-PTZ camera can be used for closeups. Motion can be detected and Boundless' **Rapid Alert Messages** with live video can be received within 5 seconds by mobile task forces without e-mail or text message delays.

Three to eight simultaneous video streams per camera, with different resolutions, frame rates and data rates, optimize images for situation assessment, monitoring and investigations, and for moving and stationary cameras.

Three resolutions, each with multiple data rates, are provided simultaneously for each camera. Video is available remotely both live, bandwidth-permitting, and recorded.



Boundless' **Event Broadcast Server** provides a Virtual Private Network for Boundless' **Multi-Stream Video Servers** behind firewalls, converts live and recorded video into a format for viewing in a browser by many viewers at once, and implements Boundless' **Rapid Notification System**.



Mobile Data Terminals with Boundless' **Control Panel** client viewing and searching software access Boundless' **Multi-Stream Video Servers** for live and recorded video, and search recorded video. Or, with Boundless' **Event Broadcast Server**, live and recorded video can be viewed, PTZ cameras controlled, and rapid alerts received, in web browsers.



Mobile forces view live or recorded video, and control PTZ cameras, on smartphones including *iPhone* and *BlackBerry* 7630 in a web browser. Handhelds do not require any special software. Rapid alert messages with live and recorded video, not just snapshots, are pushed to viewers so they can respond quickly.



Command Centers with Boundless' **Control Panel** client live and recorded viewing, motion searching, and recorded audio retrieval software on Windows PC's. Dispatchers can push video messages to mobile forces.

Video server can share Internet connection of vehicle's MDT (if any)

4 x CCTV
2 x IP



VGA, QVGA, QQVGA

Jan. 3, 2011