



## Wireless Broadband Enables New View of Parks and Traffic Control Systems to Reduce Crime, Improve Public Safety

Citizen safety. It's a defining priority of municipalities worldwide. By leveraging wireless broadband technology and applications, cities, counties and rural communities are cost-effectively making strides to impact this critical goal. Video surveillance is one of the leading broadband-enabled technologies making its mark on municipal safety across the board. Yet another gaining popularity includes the use of wireless broadband solutions for intelligent traffic control, including linking signals to enable improved traffic flow and to clear intersections during emergencies.

### **A Vital Tool**

*Scotland Yard recently released a study demonstrating that wireless video surveillance helps solve 70 percent of U.K. murders. They concluded that video surveillance is as vital for forensic evidence as DNA or fingerprints.*

### **Advanced Monitoring & Control**

In a burgeoning Southwestern U.S. border city, wireless broadband technology will deliver new capabilities to address critical public safety needs. This largely rural community, covering 75 square miles, has seen its population explode by more than 20 percent in the last eight years. Along with that growth, has come an increase in violent crime and vandalism in public parks.

To address the issue, the city engaged Motorola to deploy video cameras in 10 city parks operating on a Mesh Duo platform with Point-to-Multipoint utilized for backhaul. The initial pilot will allow law enforcement officers to access cameras utilizing a secure 4.9 GHz data network and will eventually allow public access to the network in the 2.4 GHz band. The benefits of traditional video surveillance are enhanced with IP-based wireless network solutions, because they eliminate the challenge of having camera placement dictated by wire or cable accessibility. In this case, real-time transmission of video from city parks enables a real-time response from officers.

Motorola's Duo solution is a two radio meshed network consisting of a 2.4 GHz WiFi radio (802.11 b/g) and either a 4.9, 5.4 or 5.8 GHz (802.11a) radio. Aesthetically pleasing – as well as the smallest and lightest outdoor access point in its class – Duo provides a fully flexible solution for scalable outdoor wireless connectivity making it ideal for rapidly growing communities. Standard 802.11e QoS (Quality of Service) is supported across the network, prioritizing VoIP and video surveillance to ensure optimal reliability.

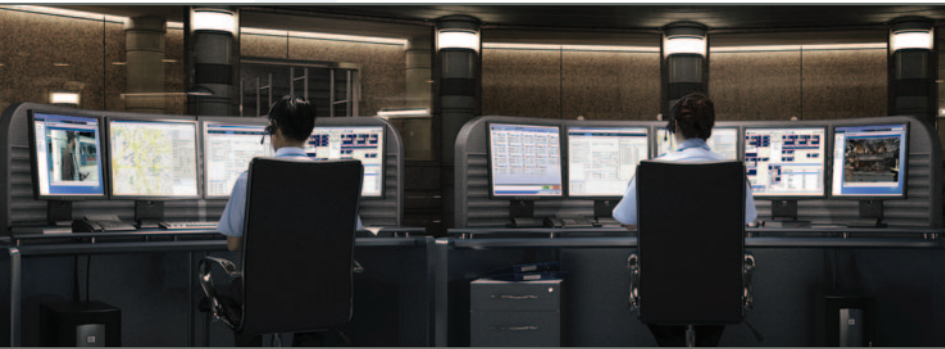
### **A Powerful New View**

The added "eyes" have given officers an effective way to monitor activity in the parks and respond to any incidents as they occur. The city hopes the cameras will also act as an ongoing deterrent, giving potential criminals a visible sign of their aggressive new intervention tool. By leveraging wireless broadband technology, the city significantly increases network reliability and decreases associated wired infrastructure costs. The goal is to expand the wireless network to cover all parks within the city limits over time.

## MOTOROLA WIRELESS BROADBAND

### Making a Difference in LA

*Motorola's wireless mesh technology helped the Los Angeles Police Department reduce crime by 40 percent in Jordan Downs in 2006 – a 700-unit public housing development in L.A.'s Watts neighborhood. LAPD reported crime in the area continued to fall an additional 32 percent in the first half of 2007.*



*A recent industry survey ranked GPS and Personal Travel Assistants the highest among five emerging transportation technologies for congestion reduction in the next twenty years. ABI Research predicts a potential growth in GPS navigation devices from 140 million devices in 2007 to over 600 million by 2012.*

### Intelligent Traffic Management

In addition to crime, the added population in the rural Southwestern city meant a bigger strain on many of its municipal departments, specifically on traffic operations. Most troublesome? A one-square-mile area located downtown. Looking to improve traffic controller synchronization, the city wanted to upgrade its system and avoid burying more fiber and leasing additional T1 circuits. Federal and state grants enabled the city to pursue a wireless broadband solution to meet its needs.

Leveraging Motorola mesh technology, the city implemented a pilot to link traffic signals wirelessly utilizing Motorola Point-to-Point (PTP) links and Point-to-Multipoint (PMP) links in areas not connected by fiber. The fully integrated, fixed broadband solution will allow Traffic Operations to improve traffic flow in the area and provide a better response in emergency situations. The robust and scalable broadband infrastructure will also allow the city to implement GPS applications in the future to benefit its various municipal fleets. By investing in Motorola Wireless Broadband technology, the city eliminated the expense associated with expansion of its wired infrastructure and will realize significant savings from recurring T1 lease costs.

### Wireless Intelligence: Redefined

Intelligent Transportation Systems (ITS) based on wireless technologies are beginning to revolutionize traffic management and control around the world. Consider these examples that leverage Motorola technology:

- In a large U.S. Midwestern state, a county road commission collects traffic data at major intersections, then transmits the data via wireless broadband networks to enable real-time remote traffic signal control.
- In a major European capital, built-in roadway sensors detect traffic tie-ups due to accidents or weather, then immediately transmit the information to the centralized traffic control center via a high-speed wireless communications network.
- Sensors mounted on highway-bridge infrastructures communicate with Department of Transportation control facilities to identify conditions that could lead to structural failure.

### Delivering Future Dividends

Reduced crime and vandalism. Improved traffic management and control. Reliable, cost-effective network access. These are but a few of the benefits the city is now realizing since the implementation of wireless broadband technology for its high-profile multi-use network expansion projects. But that's truly just the beginning. The promise of new and significant economic benefits to the community remain the larger driver behind its decision to go wireless. That coupled with the ability to achieve ROI on their network investment within a year.

### About Motorola Wireless Broadband

Motorola's comprehensive portfolio of reliable and cost-effective wireless broadband solutions together with our WLAN solutions provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh, Wi-Fi and WiMAX networks that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private systems. With Motorola's innovative software solutions, customers can design, deploy and manage a broadband network, maximizing uptime and reliability while lowering installation costs.



[www.motorola.com/wirelessbroadband](http://www.motorola.com/wirelessbroadband)

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