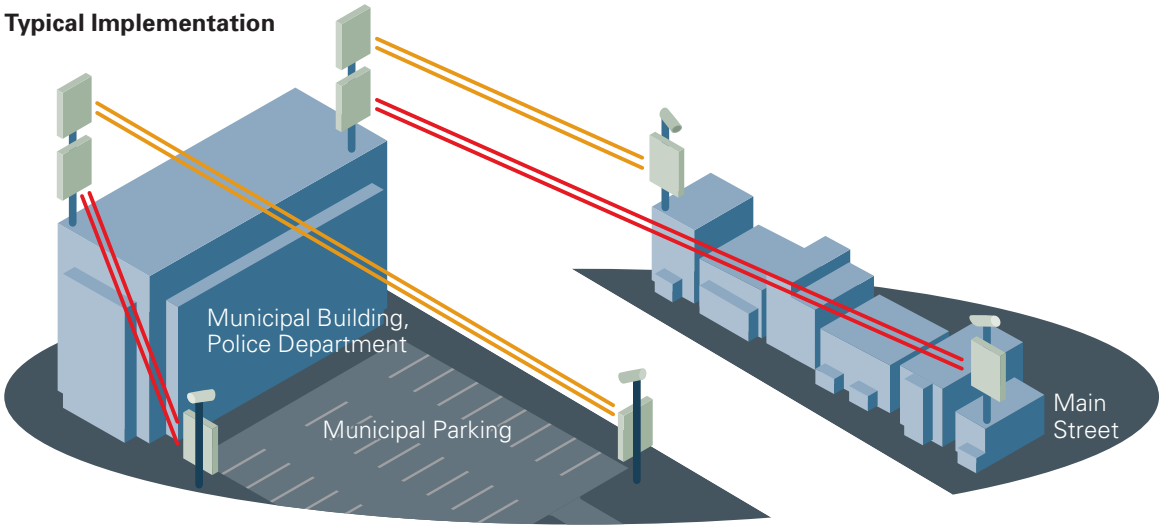
Video Surveillance for Municipalities and Security Agencies

Typical Implementation



Situation: Protecting the Public

With a host of new threats that includes everything from terrorism to identity theft, police departments and security firms are tasked with providing more protection at less cost. Most municipalities and security agencies are turning to video surveillance because it offers a real-time, cost-effective alternative with greater coverage than a staffed force can supply. In addition to protecting the public, video surveillance can also serve as a deterrent to crime, since criminals will avoid areas they know can capture their images on tape.

Challenge: Video-Reliable, Cost-Effective Surveillance

When video cameras are connected to a LAN, the users can watch from remote locations and still have access to emergency response systems at the touch of a button. However, those video cameras are often not in locations where a wire to the LAN is possible. For a wireless connection to be successful, it has to transmit the images from the camera to the LAN at the required 30-frames-per-second video speed to avoid losing images. And the total cost of the wireless video setup has to fit into tight budgets.

Solution: High-Performance Broadband Wireless Carrying IP Video

Motorola's 5.4 and 5.8 GHz wi4 Fixed Point-To-Point Wireless Ethernet Bridges – PTP 400 and PTP 600 Series – offer cost-effective, fully digital communications at carrier-class reliability – up to 99.999%. Just as important, they supply the heavy-duty bandwidth that IP video cameras require to stream high-quality images while operating at extremely low latency rates. Even in environments with considerable radio frequency interference – in crowded metropolitan areas or where video surveillance units are clustered – Motorola PTP solutions achieve far more reliable connections, much more often, at higher data rates.

In fact, Motorola solutions outperform the competition, regardless of your requirements:

- High bandwidth – enough to carry multiple video streams at 4 Mbps each
- Long-distance – traverse geography without signal loss
- Non-line-of-sight (NLoS) or near-line-of-sight (nLoS) environments – make connections regardless of path obstructions
- Crowded hub sites – cluster more radios without increasing interference
- Remote management – for ease-of-use from the LAN
- Small form factor – for fitting in tight quarters

Unique Technology, Unparalleled Performance

With solutions that provide throughput rates from 3 Mbps up to 300 Mbps, and latency rates as low as 0.6 ms, Motorola is the only manufacturer to combine these innovative technologies that are proven to minimize interference and maximize throughput:

- Multiple-Input Multiple-Output (MIMO)
- *Intelligent* Orthogonal Frequency Division Multiplexing (*i*-OFDM)
- Advanced Spectrum Management with *Intelligent* Dynamic Frequency Selection (*i*-DFS)
- Adaptive Modulation
- Inherent Spatial Diversity
- Best-in-Class Radio

The Bottom Line

Municipalities and security firms can see a fast return on investment – typically less than one year – due to:

- Cost-effective equipment with greater coverage than patrols
- Ability to allocate link capacity to maximize the number of video cameras feeding through a single link
- Sharp reduction in signal loss over other wireless solutions
- Ability to handle all-IP voice, video and data communications
- Bandwidth scalability for growth
- Extremely easy upgrade path

MOTOwi4™

The Motorola wi4 Fixed Point-to-Point Wireless Ethernet Bridges – PTP 400 and PTP 600 Series – are part of Motorola's MOTOwi4 portfolio of innovative wireless broadband solutions that create, complement and complete IP networks. Delivering IP coverage to virtually all spaces, the MOTOwi4 portfolio includes Fixed Broadband, WiMAX, Mesh and Broadband-over-Powerline solutions for private and public networks.

About Motorola

Motorola is known around the world for innovation and leadership in wireless and broadband communications. Inspired by our vision of Seamless Mobility, the people of Motorola are committed to helping you get and stay connected simply and seamlessly to the people, information, and entertainment that you want and need. We do this by designing and delivering "must have" products, "must do" experiences and powerful networks – along with a full complement of support services. A Fortune 100 company with global presence and impact, Motorola had sales of US $42.9 billion in 2006. For more information about our point-to-point products and services, visit our website at www.motorola.com/ptp.

Note: The Federal Communications Commission (FCC) and Industry Canada (IC) have authorized the Motorola 5.4 GHz PTP 400 Series Point-To-Point Wireless Ethernet Bridges, Integrated models, for sale in the U.S. and in Canada. IC has also authorized the 5.4 GHz Motorola PTP 600 Series, Integrated models, for sale in Canada. Otherwise, the 5.4 GHz versions of these devices have not been authorized as required by the rules of the FCC and the IC, and those devices are not, and may not be, offered for sale or lease, or sold or leased in the United States or Canada, until authorization is obtained.

MOTOROLA

Motorola, Inc., Unit A1, Linhay Business Park, Eastern Road, Ashburton, Devon, TQ13 7UP, UK +1 877 515-0400 • www.motorola.com/ptp

MOTOROLA, the stylized M Logo and all other trademarks indicated as such herein are trademarks of Motorola, Inc. ® Reg. US Pat & Tm. Office. All other product or service names are the property of their respective owners. © 2007 Motorola, Inc. All rights reserved.