

Enriching Communications in the City of Torrance

Los Angeles County, California



Customer

Torrance, California, is the fourth largest city in Los Angeles County, with a population of 147,000. It is a primary retail, financial and corporate business center for the region as well as a growing tourist destination on the Pacific coast. The City of Torrance is the municipal organization that governs all aspects of public safety and services within the city, including transportation, fire, police and government.

Solution Provider

Telcom Communications is a wireless solutions provider located in Oxnard, California, offering services in Southern California and Nevada. It was established in 1978 originally to support two-way radio requirements for the growing oil industry in Ventura County. However, growing demand enabled the company to expand its service offerings to many different types of municipalities and businesses using a wide range of communications technologies, including microwave, fiber optics, video, radio, telephony and data.

The Situation and Challenge

The City of Torrance required e-mail and Internet access, as well as network access to two police sub-stations, its Animal Control headquarters located in a remote park and a second Animal Control facility located at a local shopping mall. Although the city strongly considered leased-line

connectivity, the recurring expense and limited capacity of the T1 line made this alternative less-than-optimal. Wireless was the technology of choice. But the city needed a solution that would even work around a courthouse that obstructed the three-mile (4.8 km) path.

Technical Requirements

- The three-mile (4.8 km) link from the Animal Control headquarters would need to run at high throughput along a highly obstructed path
- A carrier-class connection was required for emergency services
- The broadband link had to support both voice and data
- High levels of security were imperative
- Support was needed for remote-office Voice-over-IP telephone traffic

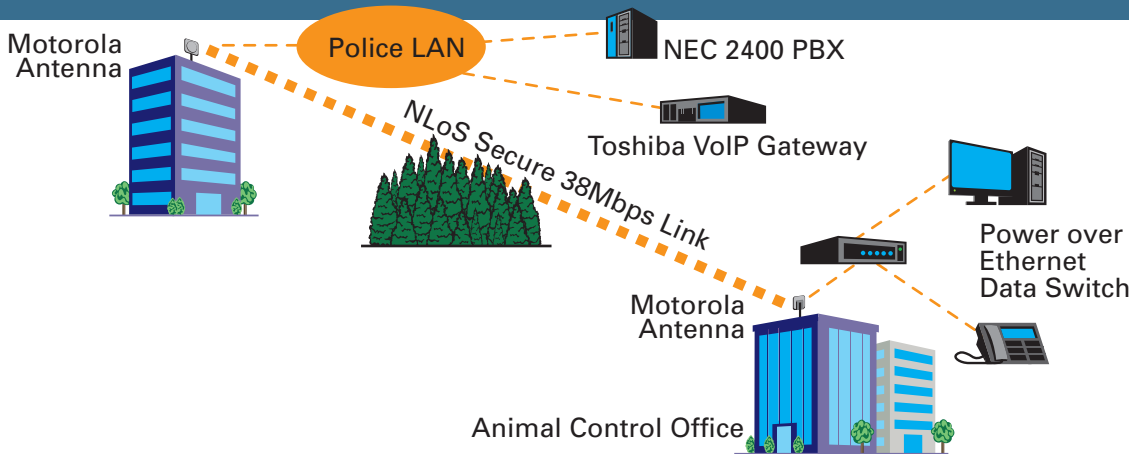
Deployment Detail and Interoperability

Telcom Communications and the City of Torrance found that the Motorola Point-to-Point Wireless Ethernet Bridges – 400 Series could uniquely satisfy the technical requirements for the three-mile (4.8 km), non-line-of-sight link. The system was deployed to enable broadband connectivity for the Animal Control headquarters.

The new wireless LAN link is terminated at the Animal Control Office into a standard data network switch. A Power-over-Ethernet switch is used to connect several Toshiba VoIP telephone handsets and desktop computers to the network.

"To get this 33 Mbps connection, nothing came near the price of the Motorola PTP 400 Series solution. Our bandwidth requirements are always growing, and Motorola has already increased throughput, with the intention of going even higher. We are thrilled with the product's performance and capabilities."

~ Jerry Edwards, Communications Supervisor, City of Torrance



The opposite end of the WLAN link is terminated in the Police Department's LAN and interfaced to the NEC PBX via a Toshiba VoIP gateway.

The Results

The PTP 400 Series solution provided a carrier-class, highly secure, three-mile (4.8 km) broadband connection running at 33 Mbps – a link that was impossible to achieve with other broadband wireless platforms. In addition, the platform enabled VoIP to be delivered over the link. The City of Torrance estimated that in less than three years the Motorola point-to-point system would pay for itself, especially when compared to recurring T1 expenses. In addition, the platform provides additional savings by running VoIP between locations, and provides more than 10 times the throughput for future application initiatives.

Why Motorola?

- A wireless broadband connection was not possible with other products; expensive leased-line connectivity would have been the only option
- Orthogon uniquely provided a high throughput, carrier-class connection
- Installation was completed in a few hours
- The solution offered a quick ROI and free software-based bandwidth upgrades

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 \$36.8 billion in 2005. For more information about our point-to-point products and services, visit our website at www.motorola.com/ptp

At the time of this installation, the products deployed were the Orthogon Systems OS-Gemini point-to-point wireless Ethernet bridges. With Motorola's acquisition of Orthogon Systems, the OS-Gemini products were renamed as the PTP 400 Series bridges. They are now 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.

MOTOwi4™



For more information about the Motorola Point-to-Point Solutions:

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