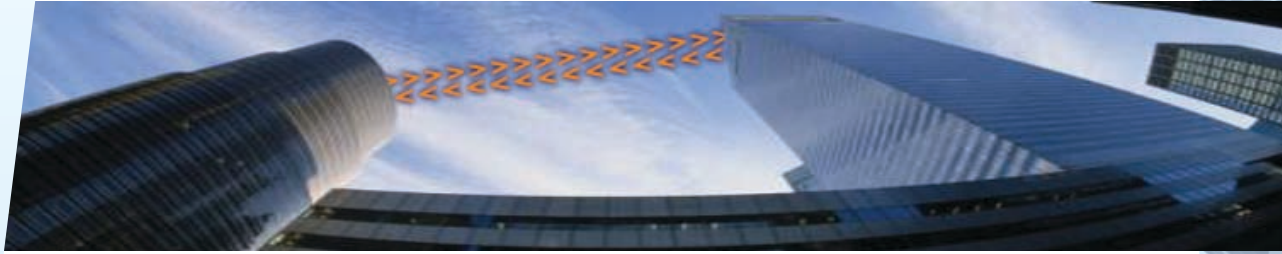




Case Study

CITY OF HIGHLAND VILLAGE



BridgeWave Wireless Links Help Make Highland Village the Safest Town in Texas



The City of Highland Village in Texas, located in Southern Denton County, between Denton and Dallas, is a growing suburb touted as a desirable place to have children and raise families.

Despite Highland Village's growth, it still maintains its sense of community and remains a very safe town. In fact, the city prides itself on being the "Safest City in Texas" for the last seven years according to FBI Uniform Crime Reports.

The city's growth saw the construction of new mixed-retail developments, for which Captain Corry Blount of the Highland Village Police Department recognized the need for additional security. In particular, security technology such as video surveillance cameras to proactively deter crime for new high-end luxury retail shops and restaurants, preserving Highland

Village's reputation as the safest city in Texas. With new retail developments MarketPlace and The Shops of Highland Village expecting to draw 60,000 to 100,000 shoppers a month, the city would not have enough police officers to patrol every corner of these establishments. The video cameras would allow the police communication team real-time monitoring of suspicious activity, theft and car accidents, to quickly respond to incidents, with the goal of preserving public safety in the area.

"It's nearly impossible to have a police officer on every street corner, therefore video surveillance was an appealing option for the safety of our community. With BridgeWave's gigabit wireless solutions, we get reliable and secure network connectivity, and we can adapt to future bandwidth requirements, thus ensuring high-performance video cameras that will let Highland Village preserve its record as the safest city in Texas."

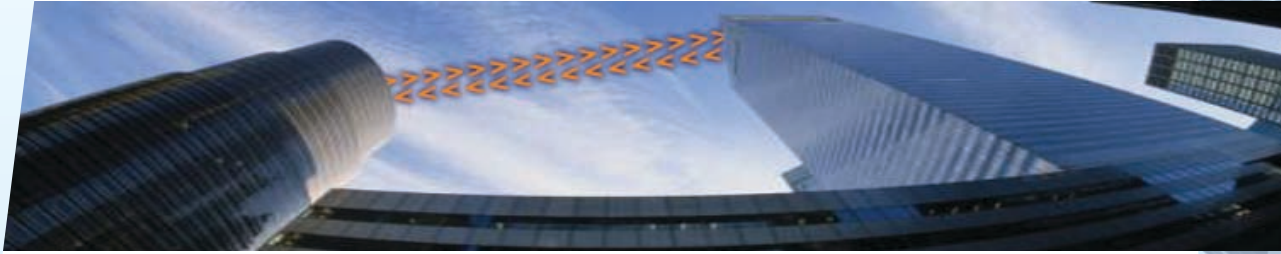
*Corry Blount
Captain
Highland Village Police Department*





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THE CHALLENGE

Because the video cameras would monitor activity at the shopping centers 24/7, it was essential for Highland Village to find a reliable network that could support the streaming video traffic.

"Since police officers and first responders depend on video surveillance, the wireless network running our video surveillance cameras must be up and operating at all times. It would be a huge hindrance to our team if our network went down," said Captain Blount.

City of Highland Village was looking for a reliable solution that would address the following issues:

- Provide high-capacity bandwidth and wireless security for video surveillance traffic
- Ensure reliability and performance and also remain cost effective
- Adapt to future bandwidth requirements
- Deploy quickly with minimal maintenance

THE SOLUTION

Working with RedMoon Broadband, a leading provider of next-generation network solutions for mobile broadband and wireless access in city deployments, Captain Blount found that using a fiber optic network was impractical when transmitting data from these new mixed-retail developments to the Communication Center. Fiber optic cables proved costly and time consuming to install especially since trenching fiber would occur under busy streets.

Instead, RedMoon opted for BridgeWave's upgradeable gigabit wireless bridges as backhaul links for the surveillance cameras connected via Firetide's wireless mesh nodes.

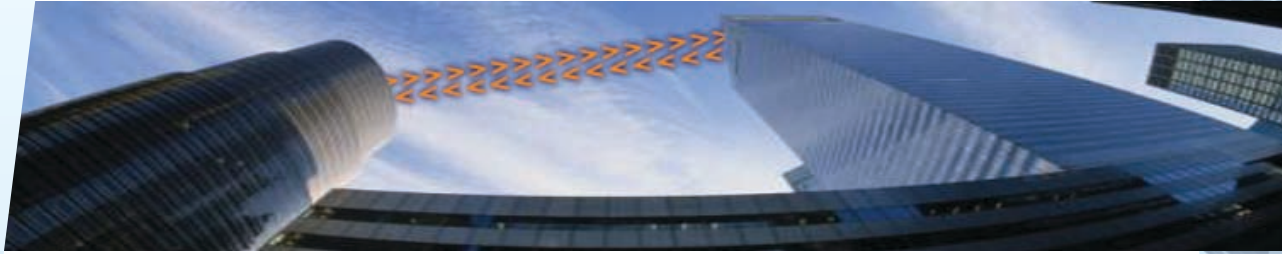
"It was an easy decision to go with a wireless network – it's dependable, easy to install and allows for high-capacity bandwidth," said Bill Young, government sales representative at RedMoon Broadband. "BridgeWave's backhaul links allow the police officers to keep a constant 24-hour eye on the community."

To cover the shopping centers, Highland Village used multiple license-free BridgeWave FE60U bridges for their advanced wireless security providing full-rate, full-duplex Fast Ethernet connectivity. In addition, the ultra-low latency provided by these wireless links delivers fiber-equivalent performance. It allows officers at the monitoring station to utilize the camera's full pan-tilt-zoom function with little delay, providing razor sharp images as the camera moves to a new subject almost instantaneously. The inherent nature of using 60 GHz provides an additional layer of security as the video streams are difficult to intercept due to the very narrow beamwidths of the 60 GHz spectrum.



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One of Captain Blount's concerns regarding any wireless network was its ability to stand up to Texas' inclement weather. The wireless network running the streaming video had to operate even during severe storms. However, thanks to RedMoon's planning and implementation, Captain Blount's concerns were immediately put to rest after the BridgeWave-powered wireless network withstood a heavy rainstorm without losing network connectivity. Plus, BridgeWave's FE60U operates in the most optimal level for performance.

The deployment was quick and easy, and as the network adds more cameras requiring greater backhaul capacity, the FE60U links can easily be upgraded to full-rate gigabit speeds.

BENEFITS

Captain Blount confirms that the BridgeWave solution has met and even exceeded their expectations for With the BridgeWave backhaul network and high-resolution cameras in place, Highland Village can monitor the shopping areas' entrances and exits, parking areas and store fronts in real-time using the camera's pan, tilt, and zoom functionality for full visibility. Officers are able to observe criminal activity, view license plates and respond to accident scenes from both the Communications Center and the department's remote Police Sub-Station. With this video surveillance, the department is confident it is providing the highest level of security for the shoppers, the retailers and the area. Not only does the video surveillance network reduce crime, the network also aids first responders at the scene of an accident.

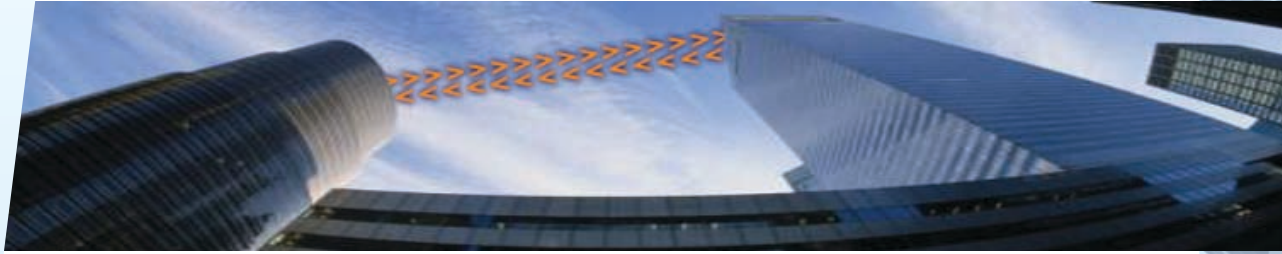
"Our police team focuses on prevention rather than reaction and our video surveillance network is instrumental in keeping our community safe through preventative measures," said Captain Blount. "Our community feels protected whether or not a police officer is on the street thanks to the video surveillance network."

Highland Village's successful use of the wirelessly-connected video cameras at their retail shopping centers spurred the deployment of other video surveillance networks at one of their local city parks and at a new city service center currently under construction. There are also plans for future video surveillance projects in other parts of the city along the City's extensive inland trail network and with new retail development.



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CUSTOMER: City of Highland Village, <http://www.highlandvillage.org/>

INDUSTRY: Government/Municipality

CHALLENGES:

- Implement a wireless solution with fiber-equivalent performance that meets bandwidth and security requirements for video surveillance traffic
- Meet thresholds for cost-effectiveness, reliability and ease of deployment
- Adaptable to future bandwidth requirements

SOLUTION: BridgeWave FE60U wireless links

SYSTEM INTEGRATOR: RedMoon Broadband is a leading provider of mobile data networks, builds and maintains city-wide mesh and fixed wireless networks allowing cities, counties and other municipalities the necessary technology to save time, money and lives in everyday tasks. To learn more about RedMoon, visit the company's Web site at <http://www.redmoonbroadband.com>.

BENEFITS:

- Supports high-bandwidth video traffic allowing police teams a constant eye on the community
- Advanced wireless security providing full-rate, full-duplex Fast Ethernet capacity
- Easy to deploy and manage yet cost effective and delivers fiber-equivalent connectivity
- Future-proof network backbone capability



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