

# US BORDER PATROL, ARIZONA

## VIDEO SURVEILLANCE NETWORKS USING WIRELESS BACKHAUL.

### Introduction

Patrolling the U.S. International Border is an integral part of the US Department of Homeland Security's strategy. However, effective control along lengthy borders such as that between the US and Mexico (700 miles) remains a substantial challenge. Personnel based solutions, such as manned stations and patrols can provide only limited coverage. Therefore, security agencies are often seeking a solution incorporating video surveillance, radar imaging and other remote sensing technologies. However, the rugged and expansive terrain of the border region makes the cabling of cameras and other sensors to each security outpost highly impractical. Wireless backhaul systems can easily solve this problem by enabling images to be sent over many miles to the monitoring headquarters.

NS Microwave, a Solectek Systems Integrator, has built their business on the physical integration of the various components of a wireless video surveillance network into a simple, easy to deploy package. NS Microwave chose Solectek's 4.9 GHz SkyWay 4000 product line to integrate into their low profile, outdoor 'concealment' system.

**"My first choice is Solectek. Their system works right out of the box, and I recommend Solectek whenever I can."**

**"This product is hot in the Public Safety Market and we think it's really going to take off."**

*Jack Simmons, Sales Engineer*

### Network Setup

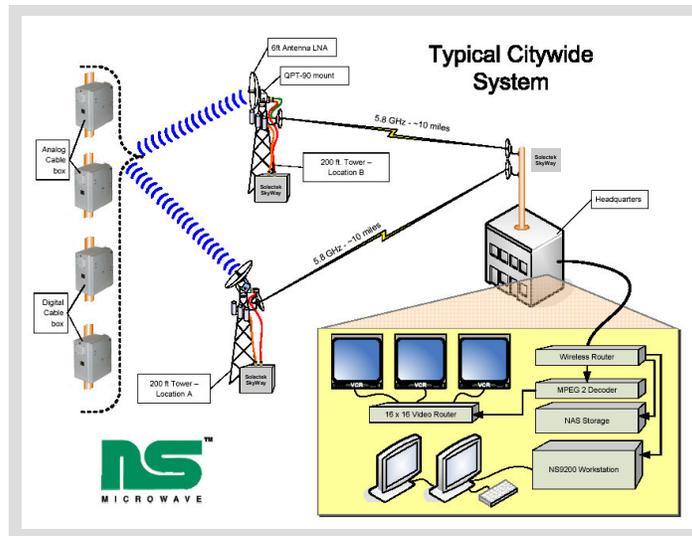
An NS Microwave network in Pima County, Arizona consists of multiple installation groups each consisting of a base unit and a number of remote 'concealment' subscribers. Each base unit is mounted on a servo-controlled aiming mount and can reach subscribers up to 32 miles away. As the situation or activity patterns dictate, the antenna can be dynamically aligned to switch between subscribers in different areas of interest. Other installation groups are deployed in a true point-to-multipoint architecture using base station sectors that continually service the client radios and cameras in 1-15 mile ranges. All surveillance activities including video monitoring and control are performed from a single headquarters office.



**Above is an example of a SkyWay wireless mounted on a service pole.**



**A typical video monitoring station is pictured above.**



### System Integration Decisions

NS Microwave had clear reasons for choosing Sollectek. According to Jack Simmons, Sales Engineer for NS Microwave, Sollectek's 4.9 GHz products have three advantages:

- (1) ease of configuration
- (2) the industry-best price/performance ratio
- (3) the availability and competence of product support from Systems Engineering staff at Sollectek.

The choice of 4.9 GHz public safety band was also a critical factor in system integration decisions at NS Microwave. Jack Simmons explains that the availability and use of dedicated spectrum for Public Safety has never been more significant. "Using Sollectek's 4.9 GHz product for this project helps ensure the performance and effectiveness of the radio system, with a minimum of potential interference. Considering the US Border Patrols' increasingly important role in Homeland Security directives and its position on the front lines of National Security, taking advantage of the available Public Safety Band at 4.9 GHz is an extremely practical and sound decision."

*Sollectek Corporation, headquartered in San Diego, California, designs, manufactures and markets a full line of wireless interconnectivity products. Through technical innovation and steady revenue growth, Sollectek has become a recognized leader in the wireless LAN/WAN connectivity market and the industry market leader in wireless bridges. Founded in 1989, Sollectek has over 50,000 installations worldwide since 1999. The Sollectek product line of wireless bridges and routers is the most flexible, reliable and secure in the industry. For more information visit [www.sollectek.com](http://www.sollectek.com).*

*NS Microwave, located in Spring Valley, California, is a full service manufacturer and systems integrator of video surveillance equipment and other emerging technologies. For over 16 years, NS Microwave has provided innovative and proprietary products to meet the demanding needs of the Law Enforcement Community. NS Microwave products include a complete line of camera concealments, command & control systems, microwave link solutions, helicopter systems and communication trailers. NS Microwave has your surveillance solution. For more about NS Microwave, please visit [www.nsmicrowave.com](http://www.nsmicrowave.com).*