



## Case Study

# San Mateo County Sheriff's Office

**“Exalt products really stood out from all of the systems we evaluated, offering the only carrier-class 4.9 GHz solution available in the market.”**

The San Mateo County Sheriff's Office, located at the northern edge of California's Silicon Valley, is responsible for the public safety and security of more than 700,000 residents. The county has an existing high-capacity licensed microwave 5 GHz SONET ring with several spur routes to key facilities. A grant from the Department of Homeland Security enabled the Office to upgrade its network with additional links and enhanced performance, and to expand coverage for its video surveillance.

### The Challenge

The county spans an area of 450 square miles from Daly City in the north to Pescadero in the south. The large area and hilly terrain presented a significant challenge to deploying video surveillance cameras throughout the county at transit stations, the airport, key county facilities, and police and fire stations. All of these links would need to be backhauled to a centralized monitoring and recording facility at the Hall of Justice in the county seat of Redwood City. Complicating the project was the IT department's lack of expertise in microwave communications. Phil Bissada, IT Supervisor for the county, explains: “I understand networking very well, but being new to radio frequency communications meant I had a lot to learn.” The Office also wanted to utilize the 4.9 GHz spectrum, which was only recently licensed for exclusive use in public safety applications, to minimize the potential for interference from Silicon Valley's crowded spectrum.

### The Solution

After an extensive evaluation of available solutions, Bissada found that only one was able to satisfy the demanding carrier-class performance and reliability requirements: the EX-4.9i Licensed Multi-Service Wireless Ethernet Bridge from Exalt Communications. The EX-4.9i delivers an industry-leading 55 Mbps of aggregate user capacity over extended distances, resulting in the lowest cost per megabit-mile available. The exceptional price/performance was particularly important because

it would permit the Sheriff's Office to devote more of its grant funding to purchasing cameras and video monitoring equipment. Bissada also appreciated the solution's high security and simplified, centralized management capabilities.

“The system was deployed over nine months ago, and we have not experienced any downtime or trouble with the Exalt equipment,” says Bissada. “We look forward to installing the rest as soon as we can.” The successful deployment of additional video surveillance cameras has already proven its worth. The high quality of a video recording, received via a 2.5 mile link, enabled deputies to identify the vehicle used in a burglary, leading to the arrest and prosecution of the perpetrator.

**“I have been really impressed with the quality and design of the Exalt equipment, and have also found the customer service to be outstanding.”**

Phil Bissada, IT Supervisor  
County of San Mateo



EX-4.9i



San Mateo County



## Why Exalt?

- All indoor 4.9 GHz carrier class solution
- Highest capacity available – 55 Mbps
- Throughput asymmetry control ideal for video surveillance
- ExaltSync™ synchronization technology
- Built in spectrum analyzer

Not only did Exalt's solution best satisfy the requirements of the application, Exalt's customer service became invaluable during the installation. From the project's very beginning, Exalt provided assistance in the form of training, path calculations and detailed configuration advice. Exalt even oversaw the deployment to ensure its success. According to Bissada, "Exalt has great expertise and a wealth of knowledge. The radios were easy to configure and the deployment was easier than I had imagined, especially for someone without a wireless background."

The ability to deliver high quality video over long distances will enable the Sheriff's Office to deploy additional cameras as funds become available. Reliability is also critical in public safety applications, and here too Exalt delivers with carrier-class availability that keeps links connected and running at full speed even in the most extreme circumstances. As an interference countermea-

sure, Exalt provides variable channel bandwidth and precise 1 MHz tuning to afford error-free operation in congested RF environments. And Exalt is the only solution available that can deliver the high-capacity, long-range and error-free performance needed for high-density centralized backhaul through the use of advanced synchronization and spectrum re-use techniques.

Learn how Exalt is leading the next generation of wireless backhaul. Visit [www.exaltcom.com](http://www.exaltcom.com) for more information on products, solutions and benefits from Exalt Communications, or contact an Exalt sales representative.



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