

## Improving Community Safety and Officer Efficiencies in Las Vegas, New Mexico

### Customer Highlights Challenges

- Police officers make multiple trips to office during each shift that reduces their efficiency
- No access to data in the field necessitating more trips to headquarters
- No ability to centrally track location of city's public safety vehicles

### Solution

- Improved public safety through mobile information access and time savings by submitting reports from the field
- Mobile access to central databases from laptops in police vehicles
- GPS monitoring to track locations of police and emergency service vehicles

### Results

- Improved public safety through fast access to data in the field, enabling police officers to spend more time in the community
- Annual savings of \$16,800 vs cellular service for mobile police units
- Foundation for future municipal services that benefit the community and continue to improve public safety

### Systems and Services

- Tropos Networks: Tropos 5210 and 4210 MetroMesh routers
- General Dynamics Itronix: GoBook ruggedized laptop computers
- Solana Technologies: System integration

Tropos' mobile network routers installed in police vehicles will also enable police to use in-vehicle laptops to submit their field reports remotely. This will help improve efficiency and enable police officers to spend more time in the field protecting the community. The mobile routers also enable the dispatch center to track the location of police vehicles using GPS. This increases officer safety and enables dispatch operations to be more efficient in dispatching officers based upon their location.

Nestled along the foothills of the Sangre de Cristo Mountains, Las Vegas, New Mexico is an interesting and diverse area. There are two National Forests within minutes of the city, and the downtown includes a charming, old-town historic district. The city has recently boosted public safety by installing a Tropos-based wireless broadband infrastructure that gives law enforcement and emergency management teams better access to information from the field.

### THE CHALLENGE

A study conducted by the Las Vegas Office of Emergency Management found that the biggest shortcoming for its municipal services was in the area of communications between mobile officers and headquarters. The existing Computer Aided Dispatch (CAD) network provided radio communications based on microwave radio relay technology, but had no capability to send or receive data. Therefore officers in the field did not have immediate access to federal and state criminal databases, and they were losing time in the field by having to return to headquarters to access data. Additionally, the current communications infrastructure had no means to track the location of city vehicles to monitor the safety of police officers or other municipal workers.

The city wanted to install a modern communications infrastructure that would address their immediate needs for police to have mobile access to criminal databases and electronic filing of reports, while also providing a sufficient foundation for expanding public safety applications leveraging the same network infrastructure.

### RESULTS

The city-owned and operated network will be live before the end of 2007 and will allow Las Vegas to improve public safety by enabling access to critical information by police officers in the field, improving their productivity and reducing operating costs. Police officers will be able to quickly access various resources for law enforcement purposes. This includes checking motor vehicle registrations, driver's licenses, and accessing the NCIC (National Crime Information Center) database, as well as other local, state and federal databases.



“The Tropos network is saving us \$16,800 per year in recurring costs compared to what we would have spent on a cellular-based communications system for our police officers. And now that we have the wireless mesh network in place, we can look forward to new applications such as video surveillance without having to do a major upgrade to our communications infrastructure.”

Lt. Eugene Garcia  
Las Vegas City Police Department & Emergency Manager  
Las Vegas City & San Miguel County

“Our goal is to provide a city-owned and operated wireless network that will allow the city to provide a higher level of service to our citizens,” said Lt. Eugene Garcia, of the Las Vegas Police department and county and city emergency manager. “The network will enable us to extend the knowledge, informational resources and databases available in city offices out to workers in the field so that we can improve public safety.”

## TROPOS SOLUTION

The initial implementation of the Tropos MetroMesh network covers seven square miles. It was designed and deployed by Solana Technologies, a leading

wireless network integrator that offers advanced engineering services. The network includes Tropos’ 5210 fixed outdoor MetroMesh routers, installed on city-owned assets around town. The Tropos 4210 mobile MetroMesh routers are installed in each police vehicle to extend the wireless mesh coverage area and seamlessly connect officers to the network.

“We chose the Tropos MetroMesh system over other alternatives because it provided the highest performance and coverage with the fewest units and was hands down the most cost-effective and easiest to deploy solution,” said Kim McCaffrey, President of Solana Technologies, Inc.

## LOOKING FORWARD

City and county officials are planning for the following applications to further leverage the Tropos wireless broadband infrastructure:

- **Mobile County Public Safety Operations** - The network will be extended countywide covering an area of approximately 400 square miles, enabling public workers throughout San Miguel County to share the same benefits as Las Vegas city employees. The countywide network will be based on an approach that utilizes point-to-point canopy microwave repeater towers and Tropos 4210 mobile routers in vehicles to cost-effectively extend the network coverage in less populated areas.
- **Video Surveillance** - Fixed cameras mounted throughout the city will enable centralized monitoring for crime watch and video recording, as needed, for litigation purposes. The city plans to eventually integrate cameras at local banks to extend their ability to efficiently and effectively monitor these locations.
- **Mobile Video Surveillance** - Video cameras mounted in police and fire vehicles that will enable the police chief or other staff to observe field incidences from a central location. It will also provide recorded evidence of exchanges between police offices and suspects which can be monitored centrally.

