

City of San Jose Connects over 180 traffic intersections with Proxim's PtMP Radios



Overview

The City of San José is the tenth largest city in the U.S. and it is estimated that San José will gain 324,000 residents and nearly 200,000 new jobs by 2030. The San José metropolitan area is home to the largest concentration of technology expertise in the world—more than 6,600 technology companies, several thousands more related companies. It is easy to recognize that arterial operations are very critical to the movement of goods and people. In response, San José secured \$20 million of Traffic Light Synchronization Program grant funds to upgrade its traffic management system. Key to reducing congestion, providing timely response to customer service requests, and providing a reliable travel experience was the installation of a metropolitan area network (MAN). The MAN enables all traffic signals to be monitored and managed from the City's traffic management center; allows traffic conditions to be remotely viewed; and traffic data shared between all regional traffic management centers, public safety service providers, and emergency operations centers.

Challenges

There are approximately 900 traffic signals and 320 traffic surveillance cameras that rely on an extensive network of fiber, copper, and wireless links to communicate to the City's traffic management center. Additionally, other transportation infrastructure, such as LED street lights, and vehicle speed feedback signs, rely on this MAN to support real time management capabilities. Due to dense foliage, typically over 30 feet, present throughout the city, the paramount concern for San José was to procure a wireless solution that could communicate despite the obstructions and the severe non line of sight conditions.

Solution

Proxim's was selected as the best solution to meet the stringent outdoor requirements. Leveraging the advantages of WOPdrive and 3x3 MIMO nLoS functionality, the Tsunami® MP-8200 was able to meet the needs of the City. The Tsunami 8200 relayed real-time information with QoS and high uptime despite being installed between dense foliage obstructing wireless line of sight. Since deployment, more than 50% of the links have been installed among trees and foliage and have worked well, even exceeding our expectations," said Ho Nguyen, Project Manager for the City of San José. Over 200 units of Proxim's high power point to multipoint Tsunami 8200 base stations and subscriber units have been installed to ensure San José ITS applications are consistently available.

Why Proxim?

Proxim's product proved itself, testifying to its high performance and extended coverage. "We wanted to get the best data rate we could to give us flexibilities in the future," said Ho. On the service side, Proxim has continuously demonstrated its capabilities as a collaborative partner. "Proxim has provided superior customer support. They've helped us through the entire process, and we're looking to them for support, both now and in the future." By choosing Proxim radios, the City estimates that it has saved over \$10 million in costs and reduced installation time by 70% over implementing a wired solution.

About Proxim Wireless

Proxim Wireless Corporation (OTCQX: PRXM) provides Wi-Fi®, WiMAX, point-to-multipoint, and point-to-point backhaul technologies, supporting a comprehensive indoor and outdoor wireless broadband ecosystem. Proxim systems enable service providers, governments, and enterprises to deploy fixed and mobile security and video surveillance, indoor and outdoor Wi-Fi, business and residential Internet access, and cell-tower backhaul. Proxim has shipped more than 2 million wireless devices to more than 250,000 customers in over 65 countries worldwide. Proxim is ISO 9001-2008 certified. For more information, visit <http://www.proxim.com>.



Unique Challenges

- Over 200 remote locations citywide, including traffic intersections and hard-to-install spots
- Severe non-line of sight (NLoS) conditions due to dense foliage

Solution Deployed

- Over 130 units of high speed 8200 subscriber stations to relay real-time information from remote ITS nodes to the base station units
- Over 80 units of high power 8200 base stations with superior NLoS functionality to aggregate information from the remote nodes

Results Achieved

- By eliminating the massive process of trenching and cabling, Proxim saved San José City government over \$10 Million
- Provided wireless links to over 130 traffic signal controllers, hundreds of LED Street lights and several speed radar signs
- Reduced the installation time by almost 70% when compared to wired implementations