Cambium Networks™

Balancing Performance and Budget for the Ideal Solution

"More customers, more bandwidth, and more stability with the same MHz." – RAUL DUARTE, GENERAL MANAGER

WHY GIGANET CHOSE CAMBIUM NETWORKS

- The ePMP™ portfolio features Smart Beamforming and Dynamic Filter, cutting edge technologies for advanced interference prevention.
- Cambium Networks solutions offer vast scalability; enabling your network to grow with your business.

Overview

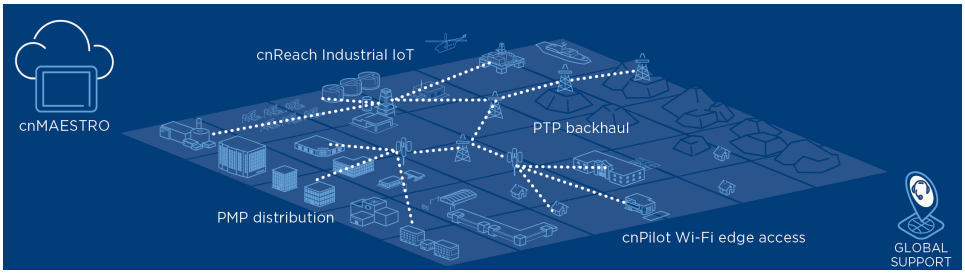
GIGANET/NIDIX NETWORKS, located in the north of the Mexican state of Chihuahua, is a WISP that serves business and residential customers in 11 municipalities. The delivery of 4-8 Mbps for residential and up to 5-10 Mbps for business services was a challenge itself, and Giganet's growth began to slow due to interference problems and limited user capacity per sector.

Challenge

GIGANET NEEDED TO FIND A SOLUTION capable of supporting an increasing number of subscribers per sector, enabling them to migrate their existing customers and scale to grow with new ones over time, while also leveraging the existing spectrum as efficiently as possible. However, managing this upgrade without sacrificing profitability was a significant obstacle.

Solution

GIGANET FOUND CAMBIUM NETWORKS ePMP™ 2000 with Dynamic Filter and Smart Beamforming, and tested various ePMP subscriber modules in an area with high user density. They monitored and recorded the signal level, link quality, and throughput for each of a sample of 50 randomly selected customers before and after the migration. The results were favorable for each user in the sample, yielding low latency and good navigation speed.



BEST PRACTICES

- Test equipment under the conditions required for your use case to ensure the best fit for your business needs, environment, and budget.

Results

AFTER MIGRATING CUSTOMERS, GIGANET HAS 53 STATIONS, with most of the customers connected to the Access Point with a modulation level MCS 15 for uplink, and MCS 14 for downlink. See table for details.

The upgrade has the most positive impact on end users, who now enjoy better navigation experiences and a bandwidth guarantee during rush hours. Moving forward, Giganet's medium term plan is to migrate areas of highest user density onto Cambium equipment to leverage spectral efficiency and connect more subscribers per access point.

NETWORK PERFORMANCE MONITORING			
Downlink Packets Per MCS		Uplink Packets Per MCS	
MCS 15 – 64 QAM 5/6	0 (0%)	MCS 15 – 64 QAM 5/6	1246884341 (96.6%)
MCS 14 – 64 QAM 3/4	1753707697 (95.6%)	MCS 14 – 64 QAM 3/4	26269799 (2%)