High-Speed Connectivity that Performs 24/7



"Our customers want connectivity that works all of the time with no surprises. With an ePMP 2000 wireless broadband infrastructure. business customers can do file transfer and VoIP services while residential customers are simultaneously streaming video and surfing the Internet."

- PEDRO DYCK, GENERAL MANAGER AND FOUNDER, EPIKNETWORK



Objective:

Provide affordable, reliable high-speed Internet connectivity.

Strategy:

Cover city center and surrounding suburbs with a circular deployment of broadcast towers.

Customers:

700 Small to medium business and residential customers in Cuauhtémoc, Chihuahua, Mexico.

Challenges:

• High noise in the RF spectrum affects many wireless technologies and service.

• Internet usage peaks challenge network capacity.

Situation

THE EPIKNETWORK COVERAGE AREA IS

composed of radio base stations on towers encircling the outskirts of the city to connect both urban and suburban customers. At Epik's inception some years ago, connecting a few customers with wireless broadband was easy. Their customers were satisfied and word spread about the quality of service.

Over time, demand for broadband increased with the growth of the city. "We added equipment to the network, but we were always looking for new technologies," said Pedro Dyck, General Manager and Founder, EpikNetwork. "We wanted to keep up as our customer demand grew for more throughput and increased services."



Offering both business and residential service provided an attractive opportunity for increased revenue, but the combined traffic of both markets – student use from home during after-school hours and businesses using VoIP services, file transfers, and transactions – challenged the small network. High RF Interference levels throttled performance, connections slowed down, and voice and streaming video applications suffered.

Customers began to report service problems, complaints General Manager Pedro Dyck took both seriously and literally; "We are a local provider and live in the city we connect. My customers are my neighbors," said Pedro. "Everyone has my personal cell phone number, and I hear about any network issues right away because they call me."



Solution

TO REINVIGORATE SERVICE IN AREAS WITH THE GREATEST INTERFERENCE, EPIK DEPLOYED CAMBIUM

Networks' new ePMP[™] 2000 wireless access point (AP). Equipped with GPS synchronization, a smart sector antenna, and Intelligent beamforming, the system is designed to provide reliable performance in the noisy unlicensed spectrum.

"The combination of smart antenna and beamforming in *e*PMP 2000 is called Hypure technology," says Pedro. "After looking at many systems, we thought beamforming and intelligent signal filtering would put the cost above our business case, but we found the *e*PMP 2000 to be amazingly affordable, and we had to try it."

| ePMP 2000 Distribution Network Solution | |
|---|---------------------------------------|
| Frequency | 5 GHz |
| Throughput | 100 Mbps in a 20 MHz channel |
| Hypure Technology | Smart Beamforming and Intelligent |
| | Filtering for interference mitigation |

Results

"RIGHT AWAY WHEN WE GOT THE LINK INSTALLED, IT WORKED

perfectly," said Pedro. "The link has performed well ever since, and we are installing more."

Customers don't need to know the details of the technology to tell the difference. Epik hasn't received any complaints since switching to ePMP 2000. "My customers are satisfied with the performance of the network. They are streaming video and surfing the Internet and don't call my cell phone," said Pedro. "I can finally can rest well at night, because now our network works just as well as if it was wired."



Advice for new WISPs

WITH EASILY DEPLOYABLE ePMP 2000 WIRELESS BROADBAND,

Pedro can expand his network to meet demands outside of Cuauhtémoc, reaching new customers who seek reliable, affordable streaming video, voice, and data services.

Pedro has advice for new service providers, "Before using the ePMP 2000 solution Cambium Networks, we were in a constant search for a team that would meet the needs of our customers. With the ePMP 2000, we are satisfied with the technology and business model and no longer think of installing other equipment brands in the future."

EpikNetwork

epiknetwork.net