ePMP Elevate Changes Everything

Challenge

VIA EXPRESS TECNOLOGIA E TELECOMUNICAÇÃO (VETT) is an internet service provider in Dourados, Brazil with thousands of business and residential customers. For years, they had used low cost wireless equipment to provide 4 Mbps connectivity. With more and more subscribers streaming video and using more devices at each location, the capacity of the existing system was becoming heavily loaded, and customers were experiencing degraded service due to RF interference and equipment capacity limitations.

"We needed to attend to our customer demand," said Icaro Calheiros, Network Supervisor, VETT VIA EXPRESS TECNOLOGIA E TELECOMUNICAÇÃO. "We needed a solution to improve the internet quality provided, making us able to deliver higher plans and new services."

VETT also needed to keep an eye on solution costs, and wanted to improve performance while getting best leverage of their equipment investment that was already installed. The time and labor of completely replacing their entire network was cost prohibitive.

"By only replacing the legacy Access Point with ePMP, without any physical change on customer side, we could improve real throughput in at least six times. Now we have a network, which supports VoIP service and streaming applications like Netflix."

- ICARO CALHEIROS, NETWORK SUPERVISOR, VETT VIA EXPRESS TELECOMUNICAÇÃO TECNOLOGIA E TELECOMUNICAÇÃO

Solution

VETT EXPLORED THEIR OPTIONS AND DISCOVERED the ePMP™ Elevate system, which has the ability to upgrade the performance of the existing network by changing out only the legacy Access Point with an ePMP 2000 AP which could interoperate with their existing Subscriber Modules (SM), and applying an over-the-air firmware update to their existing subscriber modules. This would improve the performance without requiring dispatching technicians to each SM location to upgrade or replace SMs.

Equipped with Hypure technology, the ePMP 2000 AP would enable VETT to re-use frequencies. This would give them the opportunity to get more throughput in their limited spectrum, while reducing self-interference. With smart beamforming and intelligent filtering, the ePMP 2000 AP would also be able to provide reliable service in the presence of interference from other emitters.

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

"We had to test ePMP Elevate," said Calheiros. "Immediately, we brought 20 customers to ePMP Elevate. We designed the solution, selected the customers to transition from our old system, and performed bench and configuration testing in the lab. The projections were impressive, and we took the equipment to the field."
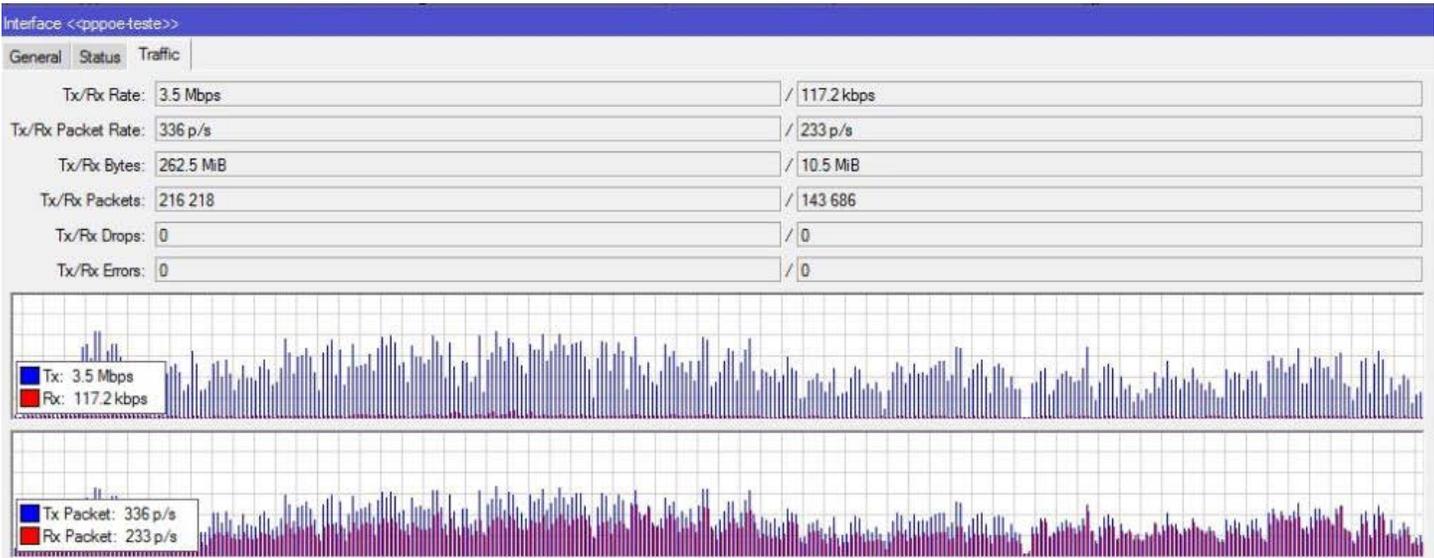
Results

"IT IS INCREDIBLE," SAID CALHEIROS. "BY ONLY REPLACING THE ACCESS POINT WITH EPMP, WITHOUT ANY physical change on customer side, we could improve real throughput in at least six times. Now we have a network, which supports VoIP service and streaming applications like Netflix."
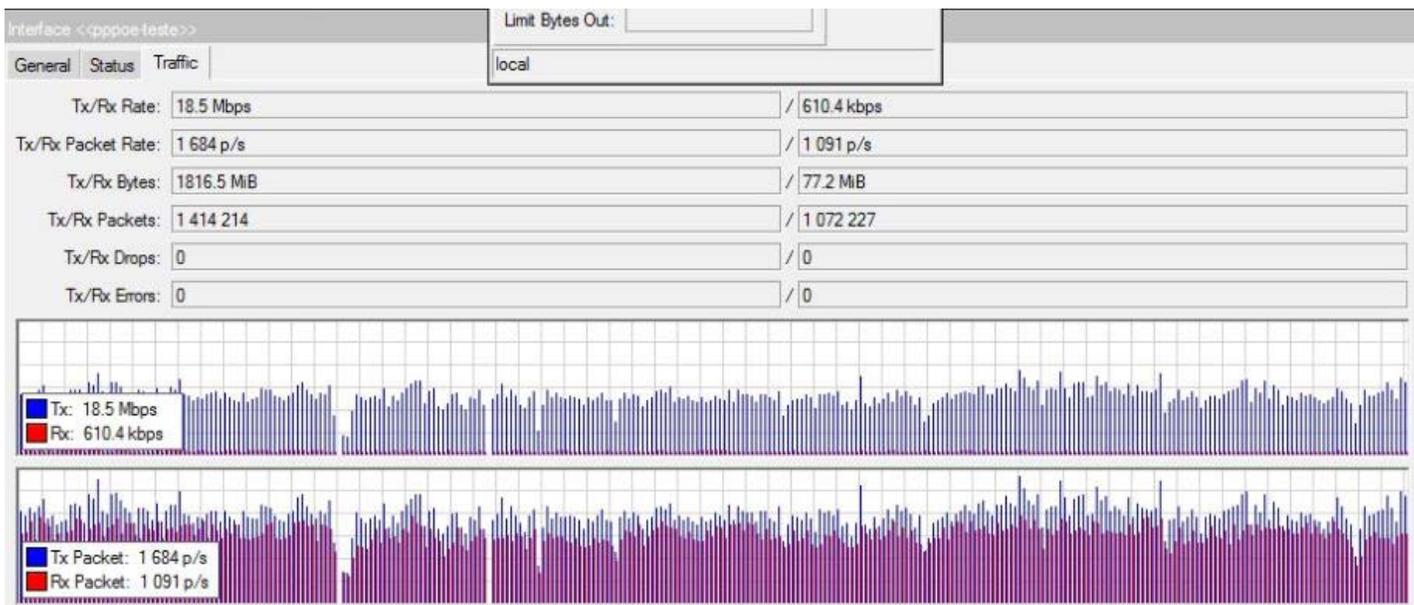
"The migration procedure did not take much of our time, since all the SMs were already installed and we just did the firmware upgrade on the existing SMs. After the upgrade, SMs automatically registered on ePMP Access Point, then we just need to set individual configuration as PPPoE user/password."

"Where we used to deliver only 4 Mbps with our radios, now that number is raised to 15-25 Mbps, causing a much superior quality at using Netflix and YouTube. Subscribers are able to run heavier games and online applications. Not only can they can run all of the applications, but they can also run them faster. Our customers noticed the change for themselves and praised us for improving their data package."

The example below shows a screen shot of the throughput delivered with their existing system before ePMP Elevate was installed:

The chart below is a performance analysis of the exact same equipment at the same customer location showing significantly higher throughput with the ePMP 2000 AP with ePMP Elevate:

VETT immediately saw the benefit to their 20 customers in the test program, and saw the opportunity to sell higher speed plans to meet the needs of their customers. They also saw the opportunity to conduct a customer reference incentive program, and began planning to expand ePMP Elevate across their network.

"We chose Cambium's products because we knew it would bring us high quality, scalability and a good experience to our customers," said Calheiros. "With ePMP Elevate, we now we have a solution to migrate our network. We always wanted to use Cambium equipment, but it was impossible to replace all of our network equipment. With ePMP Elevate, we can now migrate every customer on our unsynchronized equipment to an ePMP Network, without any installation changing, and getting all of the Cambium benefits as synchronization, automatic transmit power, frequency re-use, and high capacity for our customers."

Next Steps

VETT IS PLANNING FOR RAPID GROWTH. "WE PLAN TO REPLACE all of our APs to the ePMP Elevate solution, and migrate existent customers this year. We also would like to bring new customers to these APs, since now we have a solution that supports high number of subscribers per AP."

VETT VIA EXPRESS TECNOLOGIA E TELECOMUNICAÇÃO

vett.com.br

Why VETT chose Cambium Networks

• **High Spectral efficiency –** to provide the greatest total throughput in the least amount of scarce RF spectrum.

• **High capacity throughput –** to meet bandwidth demand across a large and growing customer base

• **Hypure technology –** with smart antennas and beamforming to perform in a noisy environment

• **Lower maintenance costs –** high performance equipment requires less maintenance, and technicians do more revenue generating work for new installations.