

Czech town gains triple-play connectivity with ePMP



Situation

LÁZN BOHDANE IS ABOUT 1.5 HOURS AWAY FROM PRAGUE. It is a small town with about 3,500 residents eager to fully benefit from the information and resources of the Internet. Prior to Edera installing a new network for Lázn Bohdane, connectivity here had been slow and unable to reliably support VoIP or bandwidth-intensive uses such as video and data.

Edera, one of the leading wireless Internet service providers (WISPs) in the Czech Republic, pioneered broadband connectivity in the area in 2006 using Cambium Networks' Canopy (PMP 100) radios. At that time, the capacity and coverage provided for the residents was sufficient. Very soon the Czech Republic, like most countries in the European Union, experienced an exponential broadband growth. With many WISPs emerging and fighting for contiguous spectrum within the 5 GHz frequency band, a range with no fragmentations in a usable spectrum had become a scarce commodity.

Edera went on a mission to accommodate its ever-growing subscriber base's demand for high-speed connectivity. This included higher data throughput for Internet usage and video streaming. It introduced a new technology in the service area, ensuring the future growth of the network. Good quality, low cost and maintenance were the cornerstones of Edera's requirements.



Lázně Bohdaneč city center

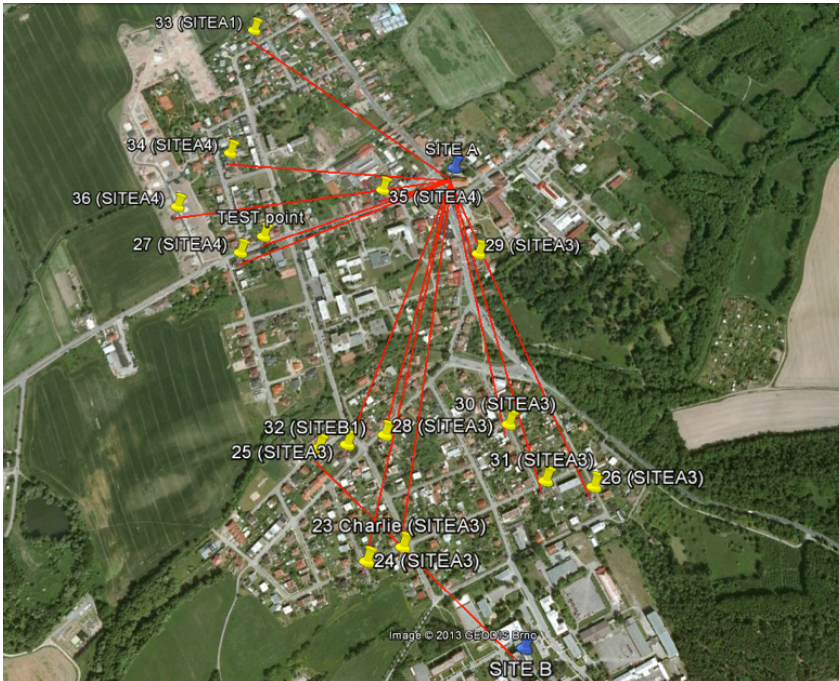
Solution

EDERA CHOSE CAMBIUM NETWORKS' ePMP unlicensed radios to offer significantly higher bandwidth and service quality to the residents of Lázn Bohdane. The major challenge was to deliver Edera's targeted throughput of up to 10 Mbps per subscriber in a noisy RF environment. Cambium Networks' ePMP radios address this and other challenges, while also providing

“In just seven years since the beginning of the WISP industry in the Czech Republic, spectrum has become incredibly constrained. We needed a scalable solution that would give us the spectral efficiency to better serve our loyal customers and to be able to connect to users in small rural towns. We found the perfect fit with ePMP – it has improved our network by a factor of five, and we couldn't be more pleased with its reliability and ability to meet our network's growing needs.”

-ANTONIO MLEJNEK, VICE CHAIRMAN, EDERA.

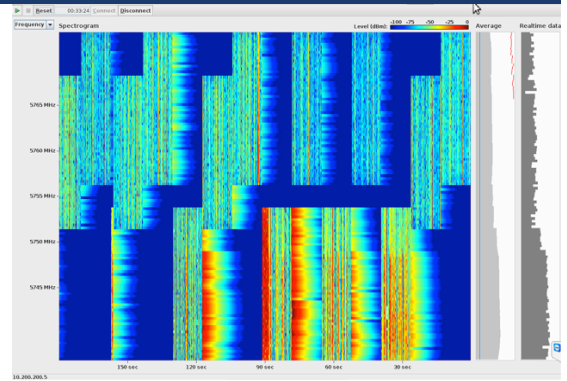
reliable and stable connectivity. The initial deployment exceeded expectations, giving Edera the confidence to proceed with the roll out of its five-year expansion plan, meeting its customers' anticipated Internet needs.



Google earth view of the network

Results/Customer Benefits

CAMBIUM NETWORKS' EPMP PRODUCES EXCEPTIONAL transmission quality and reliability due to its innovative GPS synchronization feature, ensuring room for growth in sprawling Lázn Bohdane. Its high quality and system stability are truly beneficial to the town's growing number of online residents. Now, Edera is able to position itself yet again as a reliable service provider, create more brand awareness and make its existing and future customers true brand advocates.



Spectrum analyzer view

This innovative economical system uses the following key ePMP features:

- 5 GHz unlicensed frequency usage
- Rapid deployment enables broadband connectivity when and where it is needed
- All outdoor equipment
- High performance supports an exceptional 150 Mbps throughput per sector
- Adaptive modulation schema dynamically selects the best signal quality and supports a high throughput within noisy environments
- Multiple-input multiple-output (MIMO) technology integrates two signals and delivers the best one to the end user
- Cambium Networks' GPS synchronization technology permits the deployment of multiple radios on a rooftop with greatly reduced self-interference. It allows for frequency reuse, which WISPs can leverage to serve a greater number of customers in spectrum-constrained environments, ensuring stable high-quality transmission