## 7 Questions on Cambium Networks' Commitment to the WISP Market and WISPAPALOOZA

Derek Underwood



WISPs are focused on spectral efficiency and growing their revenue while Cambium Networks is committed to delivering innovative solutions that allow service providers to achieve their goals. Derek Underwood, Regional Vice President of Sales for North America, elaborates on Cambium Networks' latest developments for WISPAPALOOZA 2019 and Cambium Networks' continued support of the WISP market.

### What is Cambium Networks' experience with, and commitment to, the WISP market?

Cambium Networks has been fully committed to the WISP market since our Motorola days. We continue to invest in solution sets and products that are purpose-built for the WISP market with a heavy emphasis on spectral efficiency. Our engineering and sales teams understand the value of spectrum and how limited of a resource it is, and spectrum continues to be a main driver for our innovation and efforts.

Moving forward, our goal is to continue to provide solutions that give WISPs a competitive advantage in the market. We plan on doing this by continuing to innovate on our existing platforms and developing in areas where new spectrum is becoming available to our service providers.

## What are the latest developments Cambium Networks is showing at WISPAPALOOZA?

Cambium Networks recognizes the pressure that our service provider community is under. One of the areas in which we can assist is helping our WISPs to develop alternative revenue streams. For example, there is a great opportunity for WISPs in the managed service provide (MSP) market. Many of the products and solutions that we are showcasing at WISPAPALOOZA are developments that can provide managed service to enterprise, K12 and hospitality customers. The cnMaestro<sup>™</sup> single pane of glass that manages enterprise solutions can provide significant value to the service provider community.

We are showcasing our solutions in the CBRS band, including the PMP 450m platform with cnMedusa technology. This platform is exciting because it's an industry-leading spectral efficiency standpoint solution in the CBRS band. Our WISPs are going to have a huge advantage in the 3.65 GHz frequency band with the addition of PMP 450m and cnMedusa.

We'll also be showing our LTE solution in the 2.5 GHz band, which is our first entrance into the 2.5 GHz spectrum. We expect to include additional frequencies in our cnRanger platform.

#### What new developments does Cambium Networks have when it comes to spectrum?

Cambium Networks is primarily focusing on two areas: one is leveraging existing available spectrum, particularly in the 5 GHz and 3 GHz frequency bands, with more efficient solutions like the PMP 450m platform that utilizes massive MU-MIMO technology. From an existing frequency standpoint, we are continuing to innovate in this area, provide higher-capacity solutions that use less spectrum and offer options that require less signal quality to operate at high throughputs.

Second, we are focusing on development in new spectrums. 60 GHz, 80 GHz, 2.5 GHz and 28 GHz are areas where we are starting to see more availability for the WISP community. All these developments are underway at different stages, and we expect that they will all benefit our WISP community as those frequencies become available.

# What is the most compelling topic at the conference this year?

The discussion around CBRS is definitely the most compelling topic for a couple of reasons. First, it is going to lay the foundation for future available spectrum in terms of how the FCC chooses to manage some of that spectrum. Second, it is an important milestone for WISPs to ensure that we, as a group, get our share of available spectrum to support underserved, rural broadband customers. Traditionally, this spectrum has gone exclusively to Tier 1 operators. The CBRS band represents a great opportunity for us to secure our place as we move forward with the spectrum and the FCC.

### WISPS want to grow their revenue; what is Cambium Networks doing to assist?

Sometimes, WISPs struggle to grow their footprint. We recognize that it's hard to build out infrastructure in new areas. Additionally, they're under pressure from wireline operators that are expanding their fiber coverage.

Our job is to help our service provider community to grow their revenue, in some cases, with their existing customer base. This potentially expands the revenue to include managed services inside the enterprise, and this is a big opportunity. Many of our WISPs around the world have seen success after delivering MSP services that create stickiness and create an additional revenue stream for the WISP.

## WISPs come in all different sizes. Which WISPs are growing the fastest?

Those who decided to take CAF funding money are seeing significant growth even outside of the CAF areas that they have started to develop. We're also seeing that WISPs utilizing their own towers, sites and site development work have a good formula for rapid growth. Rather than relying on tower leases and rooftop owners, they are investing in infrastructure in areas with customers who really need service.

Not only are these WISPs growing in an area where there's no competition, but they are also finding that areas with less competition where they have a dedicated customer base is the key to growth. Some of the WISPs we see growing the fastest are the ones that have spent a lot of time evaluating the homes and demographics within a prospective area that they are going to serve.

## What sets Cambium Networks apart in the WISP market?

Cambium Networks is firmly committed to building platforms that focus on spectral efficiency. We've also built specialized platforms to serve different RPU markets, and this flexibility sets us apart. Network operators are starting to expand into areas that they couldn't reach before because the cost model simply didn't work. By using our scalable and spectrally efficient solutions, these service providers can now move into areas and pick up new customers they couldn't previously obtain.

We are dedicated to creating innovative solutions for WISPs. The PMP 450m with cnMedusa technology is years ahead of competitive solutions in the WISP industry, and it offers service providers the ability to increase service level offerings without having to make huge infrastructure changes. WISPs are important to Cambium Networks, and we continue to dedicate a great deal of resources to strengthen the WISP industry.