Wireless Broadband - My View

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Royell Communications started in 1999 as a Wireless ISP focused on connectivity in central Illinois, because we saw the demand in our community. There had been a local dial-up company that was over-charging businesses and under-delivering on quality. We figured that we had the knowledge to do better, so we got the equipment and partnered with a company to get a dial-up service started in our local community.

End customer demand for better service was so high, our competition's customers immediately switched. We essentially put them out of business by simply providing both better dial-up service and better support. We've since built our company from that model. Since April of '99 when we started with 56K dial-up, we have grown to just over 5,000 customers, offer wireless broadband in roughly seven counties, and have over 80 towers sites throughout our coverage area.

Most of this growth has been achieved through Cambium Networks' equipment.

We have core towers for our main sites that support heavy client loads, and also some subsidiary micro POPs. We cover a pretty big area.

Over the years, our technology has evolved. In 2001, we deployed Cisco equipment. We saw that there was increased demand for bandwidth that dial-up wasn't cutting. People were starting to use the internet for more things, whether it be research or web browsing. We were on that leading edge of demand. This was before streaming video. 2001 was a milestone for us because that's when we spread our wings. Shortly after being a dial-up company we expanded quickly, putting our competitor out of business. We had a huge customer base, and demand continued growing rapidly; we decided that the Cisco gear wasn't delivering enough of what we wanted.

The Cisco gear used the 2.4 GHz frequency. That's very much a Line of Sight (LoS) technology, not for very long distance. We wanted to find something that would give us more of a non-line of sight (NLoS) option, and that's when we tested Cambium equipment. When the PMP 100 at 900 MHz came out, it was a godsend. We were able to swap complete tower sites over and customers were just thrilled with 1 Mbps service. Today, that's dial-up speed. We used the PMP 100 to really grow organically. As we expanded to connect new customers, we'd find another site that also had high demand, so we'd go and deploy a new site in that community. We would gain large sums of customers, and then go to the next community. We were very much a machine that was driving its own progression.

WiMAX was the hot technology in 2005. We had a very unique opportunity to work with the PMP 320 product. We did a state project with rural broadband funding, partnering with an ISP in Kentucky to provide 12 sites over two counties – 2,700 clients – with rural broadband. It was a very substantial network.

We began to see competitors also using 365 edging in. We wanted to keep our lead, providing more bandwidth and better coverage to clients, so we implemented the newer, high-speed ePMP™ 1000 and PMP 450 technology. We're now into the ePMP 2000 product line, the cnMedusa™ 5GHz, and the next great things that Cambium will come out with. The demand continues to grow. A one or three Mbps plan for the grandma and grandpa that want to use Facebook and talk to their family works for a few, but average subscribers are now getting rid of their TV service and going to all streaming services. They're going to Netflix and Amazon services – and there are so many out there that the demand for bandwidth just keeps going up and up and up.

The growth rate just this past year has increased almost 400% with some of the new sites we've put up. To put that in perspective, I know that sounds like a huge number, but with turn in our area we have a lot of competition. We had a cable company come to town offering faster speed plans at lower rates than what we were able to operate at the time. They stole some of our customers, so there's a certain level of churn there.

With the new ePMP 2000 and PMP 450, we're able to offer faster speed plans now. Our rates have never gone up since we started our business; they've only gone down. We've built our business around offering local support. Our customers know that we're right down

If you could start over again, what would you change?

We should have planned for demand growth earlier. I also wish some of the access network equipment we have today was available years ago, but I understand that technology grows. Our biggest challenge today is building out our core backhauls to feed the access networks we're designing.

For example, last year we put up just a couple of ePMP 1000 sites in very rural communities. We didn't expect much of a take rate. In less than a year's time, we saw that one of the backhauls we were using to feed it with 100 Mbps of throughput was hitting some spikes, so we decided to put up a licensed microwave link to feed that site, and the very first day we did, we hit about 120-130 Mbps that night.

What is one secret to your success?

Having a good management system is key. You definitely want to make sure that you have something that is easy to use, functional, and gives you the tools you need to support a network.

We manage our customers with an in-house build CRM. We have a few programmers in house that work with our structure team and we grow our own management software. That's very powerful. It integrates very nicely through SNMP with Cambium's gear, so we can do QOS and any kind of provisioning we want. We can set up, change frequencies, and change color codes on the fly.

We have also been using the cnMaestro™ management system extensively – with over 2,000 units that we're monitoring – and it's working great. We're loving the growth of that product.

What type of staffing does it take to operate your network of thousands of subscribers?

We're operating today with 20 staff members. We have six full-time installation technicians right now, 12 vehicles total in our fleet. Some of those 12 vehicles are smaller utility vehicles that our infrastructure team can use. We have a large bucket truck that we actually go out install TV towers at a customer's house if they need service. If they're out in the country and can't get a signal anywhere else, we'll go install a tower for you and get you a signal. We do what we have to do to get a signal.

the road, and when they call they're going to get us. Our churn has gone way down, and in the past year with some of the new sites, we've developed our net gain, and subsequently our growth rate has increased substantially. I can directly attribute that to the new technology offered by Cambium that empowered our ability to develop these new sites very quickly and bring to town service that's in high demand.

When you're looking for a WISP to acquire, how do you know when it's going to be a good acquisition?

We definitely have a couple that maybe didn't look so good on the surface. What we're looking for is coverage area. A few of the larger WISPs that we've acquired didn't have large customer bases, but had very strong geographical assets – they're in big communities. They had the contracts on water tanks and towers in those communities, and we didn't have a presence. We were looking at it from a geographical approach, that if we acquired that WISP we could take advantage of those locations and grow the network, replacing their equipment with what we know works and keeps our customers happy.

Most of those WISPs were not Cambium networks. They were old Alvarion or Ubiquiti networks. We had not only a very strong mindset that their shortcomings were from that equipment , but also a lot of confidence in Cambium's equipment, and knew that if we used the right stuff correctly, we would be able to grow those networks. So far that model's worked for us.

Cambium Networks™

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