

Vecima: Fixed Innovation

Robert Forget, Vecima's Director of Wireless Product Management talks to InterComms about the company's evolving offering



Robert Forget started in the Business Development group at Vecima Networks Inc. and is currently the Director of Wireless Product Management for the organization. He received his Bachelor of Engineering in Engineering Physics degree from the University of Saskatchewan as well as an MBA from Lansbridge University. Robert ran his own consultancy firm for five years specializing in electronics design and systems implementation. Robert has presented at many international events including the World Congress on Information Technology, WiMAX Summit, WCA and various Association events. Mr. Forget has been active on the boards of many organizations and is currently the chair of the Wireless Innovation Network of British Columbia (www.winbc.org).

Q: What's noteworthy about Vecima?

A: Vecima does things somewhat differently. One of the things that sets us apart is that we are still focused on fixed wireless solutions. A lot of those who did fixed wireless, point to multipoint solutions have now moved on to mobile, be it WiMAX, LTE or even the cellular HSPA.

We have stayed focused on improving fixed solutions for a variety of different applications, based on a variety of different technologies.

Q: Why?

A: We thought that there was and there still is, a lot of life left in fixed wireless solutions, especially now that 3.65GHz spectrum has opened up in the US and Canada. That is a specific mode for unserved and under served markets. It allows wireless ISPs who can't necessarily afford to buy spectrum, to go out and establish a network. Every time they set up a base station, they register it with the FCC or Industry Canada and that registration allows the regulatory bodies to ensure that there isn't a lot of interference between users.

Q: How do you deliver a tailored or bespoke solution?

A: There are two ways that happens, either an active or passive way. The passive way is via perpetual customer feedback. Something we pride ourselves on is that we are in constant communication with all of our customers, gathering information on their specific instances and networks and based on that information, we are able to add features and updates to our firmware and going forward, meet some of those unique requirements. What will help one customer today will hopefully help out twenty or thirty more in the future. On the active side, we have created specifically tailored solutions for customers who have very, very different requirements. A good example of that is our BWIN™ solution. In one case we had a customer in Latvia who had an old cable plant. The copper they had laid wasn't good enough to provide upstream and were stuck with video only to their customers. They wanted a solution that added data to their network. What we created for them was a custom BWIN solution that integrated seamlessly into their existing cable plant and was comprised of transceivers running in the 2.3GHz band where they had managed to get a transmission license from the government. We

developed a solution to make their plant two-way, using their existing equipment: a standard cable modem, a standard head end etc, but using wireless so that they wouldn't need to replace their copper.

Q: How important is the USDA's Rural Development initiative to your strategy and the proliferation of Broadband Wireless in the US?

A: In the US, our customers are mainly Tier 3 and Tier 4; smaller operators in rural areas. It is these smaller companies that we focus on because they are the ones who have the hardest time getting the support they need in order to be successful. The USDA Rural Development Initiative allows these smaller operators to actually make the initial investments that they need to make in order to expand their services into surrounding under served or unserved areas.

For smaller operators everything has been financed out of pocket and with the banks not as free with their money as they once were, having this initiative is going to help a lot of people. It isn't going to help out everyone, because there is a finite amount of money to be spent on the program but we hope it will help out in achieving a higher penetration of broadband to the population.

Q: What's the next big thing?

A: We are not necessarily looking for the next big thing, but we are looking for the next thing that not too many other people are doing. The big niche is going to be in other verticals. Point to multi-point broadband wireless has been focused almost 100 percent on wireless ISPs; the consumer market. I think that we will see larger niches opening up in very specific applications that aren't consumer based, for example SCADA type markets, where equipment is either based on cellular or ISM based 900MHz equipment. As their throughput requirements go up, they don't want to be at the beck and call of a cell company on a month to month basis. We are also seeing a lot more interest and pick up of broadband video for both homeland security and

► the utility market where they want to make sure that monitoring of their important assets is improved and in lot of cases they are using wireless to backhaul video from cameras observing those assets.

Q: What is your offering for this in terms of RUS-listed products and what are their advantages?

A: The RUS products come from three distinct wireless product lines that Vecima carries. BWIN™ is one of our legacy product lines which we have been selling since 1999. The benefit of BWIN is that it keeps all the recognisable infrastructure from an existing cabled solution. You will have a standard cable modem at the customer side and a standard CMTS at the head end. What we provide with BWIN is the ability to deploy a cabled network without having to run any new copper. The BWIN solution is running at 700MHz which allows for a macro cell deployment, so it is great for light density areas. Depending on the height of the mast, customers are achieving a very large 30 mile cell radius.

The second equipment that we have listed in RUS products is our Waverider® equipment. It is a 900MHz unlicensed product but is still a proprietary technology. We have since come out with the second generation of this which is OFDM-based and stands out since it has a smaller channel size and a better efficiency for throughput. 900MHz allows you to fill in a lot of areas in rural regions.

With our Waverider product, there is no requirement to own any spectrum, just grab the equipment, install it on a tower and hit the ground running. The user sees no additional costs for spectrum. The other benefit of the Waverider equipment is that base stations are lower cost in order to allow a smaller wireless ISP to start up without having a larger, out of pocket capital expense.

The third product that is RUS listed is our 3.65GHz WiMAX equipment. That WiMAX family of products has now been around for a while. We started developing it near the beginning of standardisation – 802.16-2004. The MAC is 100 percent Vecima designed. The 3.65GHz is the best of

both worlds. It is a bit of a hybrid because of the spectrum itself. It is not unlicensed so you don't need to worry about the interference that you see with the 900MHz or 2.4GHz solutions. The way that the FCC set it up and I have to give them kudos for doing it that way because it makes it much, much easier for the small rural ISPs to actually participate.

Q: How 'multi' will the applications offered using 3.65GHz be?

A: I think that in the beginning, a lot of it is going to be 'vanilla'. The multi-play portion of it is going to be data and voice. Those two things seem to be hand in hand now. There are very few people providing data only solutions at this point because voice provides a higher return than you see with pure data. I think the majority are going to be data and voice deployments. Some folks are going to be doing video as well. It remains to be seen who is going to end up winning in the end; if it going to be an IP-based video or if it is going to be more similar to the cable network where you have digital cable video deployed over wireless.

We have a subsidiary company called YourLink in Canada. One of their larger deployments is in Saskatchewan and we were lucky enough to have MMDS spectrum which provides us with a large block of downstream frequency that we can use. Because of that, we were able to launch a fairly inclusive triple play network doing video, voice and data. One of the limitations coming into the market is going to be how much spectrum the operators have access to and how creative they can be with that. In order to make it work with smaller spectrum, YourLink is using our BWIN™ technology. Our transceiver can handle the entire downstream band so we can see multiple channels at once. It makes it easier to deploy, whereas if you have a WiMAX deployment, or something similar to a WiMAX deployment, things get a little bit trickier.

For more information visit:

www.vecima.com

