Bringing WiMAX to Vertical Markets

Vertical Applications Can Deliver Cost Savings to Enterprises and a New Revenue Stream to Operators

Monica Paolini
Senza Fili Consulting
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The attention of WiMAX operators is on business and residential subscribers. Will they embrace mobile broadband with the same enthusiasm they have shown for cellular voice? How much are they willing to pay for it? Which devices will they use? These crucial answers will make or break the business case for WiMAX operators.

Most of the business models employed by WiMAX operators do not prioritize—or even contemplate—vertical markets such as transportation, utilities, health, education, safety, etc. In fact these sectors are often seen as a distraction or a niche. Many operators devote all their resources to the business and consumer markets and plan to address vertical markets on an as-needed basis, or at a later stage when the network is completed and business and consumer acquisition is well under way. Vertical players have just started to assess the WiMAX opportunity and still have to quantify the potential cost benefits and performance advantages, as few commercial WIMAX networks are available to conduct their analysis.

Traditionally, vertical markets have played a very limited role in cellular networks. Voice services have a dominant role, as they provide the bulk of revenues and, even more importantly, profits. As a result, voice traffic has priority and takes up most of the capacity on cellular networks. If you add some data traffic from business and consumer subscribers, there is little network capacity available left for vertical applications. Vertical markets are by definition more fragmented and therefore operators need to put in more effort to address their requirements. In this context, it is not surprising the operators have paid little attention to vertical applications.

WiMAX—and LTE when commercially available—have the potential to change this. They support true wireless broadband networks: the wider channels and improved spectral efficiency bring the operator higher capacity. Operators may end up with more capacity than they need to meet the demand from mobile and fixed subscribers, especially in the early deployment stage, when they need broad coverage but they are still in the initial client acquisition phase.

Without being encumbered by the requirement to support large volumes of voice traffic, WiMAX operators can finally turn their attention to vertical markets. In doing so, they will discover that enterprises can bring in additional revenues to help pay back their hefty initial capital outlays for the network buildout.

Vertical players have been warming up to the idea of using WiMAX for their telecom needs. Increasingly, enterprises and public agencies realize that the legacy telecommunications infrastructure they often use is becoming increasingly expensive to support, and limitations in performance result in higher operating costs and reduced efficiency. WiMAX and other wireless broadband technologies enable them to adopt high-performance technologies and applications that will deeply transform the way they operate.

Many vertical players are currently exploring how wireless broadband can meet their needs, how it fits within the way they operate and whether their requirements can be met sharing the network with the individual subscribers that are the core market of mobile operators. The opportunity for many of them is huge, but at the same time difficult to address, as it is still uncharted territory, both in terms of technology and business models, and in most cases the WiMAX networks are still being built.

Support for Quality of Service (QoS) and advanced core network management functionality make WiMAX and LTE more appealing to enterprises, as they know that their operator can assign the appropriate priority level to their traffic and deliver it accordingly.

Yet many WiMAX operators are not aggressively pursuing the vertical market opportunity. Why is this so? Greenfield operators are behind most of today's WiMAX deployments and they are still on a steep learning curve as they deploy a new technology, launch new services, and develop their own brand. There are additional challenges with vertical markets that many of them simply do not have the resources to address.

We expect this to change soon, as they realize that vertical markets can bring in a reliable, low-risk revenue stream in the early stages of deployment. Enterprises look for stable, long-term providers to support their applications, as their business depends on them. As a result, they tend to be less price-sensitive and to be willing to sign long-term contracts. Thus, vertical market users may bring lower per-user ARPU as individual use of the network may be limited, but they also mean churn and lower customer acquisition costs. Especially at the beginning, enterprises are excellent customers to have and competition to get their business is more limited, as cellular operators cannot meet their requirements in a cost-effective way.

There are many open questions for operators and vertical players that still need to be addressed. Business models are still to be fully developed.

Many contractual issues, cultural barriers and legacy relationships within the value chain still have to be dealt with by operators and vertical players alike. But we see a growing realization in the market that this win-win opportunity is bringing both operators and enterprises to the table to start developing mutually attractive business propositions.

We will look further at this issue in forthcoming articles that build upon our consulting work, and will look at how operators and vertical players have started to address the opportunity to deploy vertical applications in commercial WiMAX networks operating in licensed spectrum. In most cases, the applications are still being developed and the opportunity assessed, but we believe that the experiences of these frontrunners are helpful in framing a successful approach to vertical markets within the WiMAX ecosystem.

About Senza Fili Consulting

Senza Fili Consulting provides advisory support on wireless data technologies and services. We assist vendors in gaining a better understanding of the service provider and end-user markets. We work alongside service providers in developing a wireless data strategy and in assessing the demand for wireless services. Independent advice, a strong quantitative backing, and an international perspective are the hallmarks of our work.

At Senza Fili we have in-depth expertise in financial modeling, market forecasts and research, business plan support, due diligence, white paper preparation, training, and evaluation of end-user requirements. Our clients are international and span the entire value chain; they include fixed and mobile operators, ISPs, wireless ISPs, other service providers, vendors, solution providers, system integrators, investors, and industry associations.

For additional information you can visit us at www.senzafiliconsulting.com, or you can contact us at info@senzafiliconsulting.com or at +1 425 657 4991.