

WhyMAX? Choose an alternative

WiMAX. This is now a buzzword of the day in the industry and there is no publication that does not have an article or two on WiMAX each time. Looking at the news there's a new WiMAX deployment over here and a brand new contract out there. There's not a major carrier all over the globe that has not deployed or trialed or at least considered WiMAX technology by now. But to those who work on the ground there is a different picture to all this hype – and here we try to explain what is really happening.

What is WiMAX?

In a nutshell, WiMAX is the name of a non-profit forum that coordinates activities of multiple companies. The goal is to create a global technology standard that will allow equipment of multiple vendors to interoperate. Just like those days all WiFi clients and access points from a thousand different makers work together (thanks to the efforts of the similarly dedicated WiFi forum), WiMAX strives to achieve the same. Learning from shortcomings and faults of WiFi technology, WiMAX can be considered WiFi Part II – better range, better throughput, and so on. In the world of WiMAX proponents, time will come when WiMAX will replace WiFi in laptops, PDAs, even mobile phones and broadband wireless will be everywhere. Let us not get carried away with futuristic prospects, however.

WiMAX technology

Those companies who are part of the WiMAX forum – Cisco, Intel, Aperto, Alvarion, just to name a few – bring in major expertise, funding, and intellectual property into the mix. Technology has advanced a great deal since the advent of WiFi, and WiMAX is a breed of many successful technologies and patents invented by the forum members. Essentially, WiMAX tries to use best technologies in wireless access and to integrate them for the benefit of the contributors and the consumers. Where WiFi was not able to deliver, WiMAX is supposedly the answer.

Competition

No man can claim to have no competitor, and neither can any technology including WiMAX. Driven by demand, carriers and vendors have invested heavily into mobile broadband technologies. Some of them are standard - such as EVDO, 3G, HSDPA, LTE – and some are proprietary, such as Flash-OFDM. While being met with moderate success in press, those technologies are by now much more widely deployed and mature than WiMAX – and every major carrier has one or another technology deployed here or there. With all this investment and effort spent into high-speed mobile and fixed broadband wireless networks, WiMAX will have a tough time convincing carriers go its way.

The uncertainty

There's also a time and unknowingness about WiMAX – it being relatively new, not all standards are complete yet. While a major draft was released in 2004, many other aspects that make WiMAX attractive - such as mobility and extended range – are still undecided. Ratification of the so-called 16e standard is scheduled for mid-2008, but it's a vague date and availability of products supporting the standard is even more distant.

The dilemma

There is a contradiction somewhere in what is happening on the market. On one hand, WiMAX is a promising, high-speed, wireless technology that can give a carrier the edge to satisfy bandwidth-hungry consumers with all their PDAs, mobiles, smartphones and their desire for more and more content. On the other hand however, there's a price to pay - WiMAX is a complicated, expensive, and challenging to deploy technology. Because it tries to deliver carrier-grade capabilities, it comes at a carrier-grade price – and more and more people realize that. Now we know that WiMAX will one day be great. Still, it's not complete and what is complete, costs a fortune. But out there, not all service providers are major or even minor carriers with infrastructure budgets. As a fact, a big part of telecommunications, especially in the developing world, is run by small private operators. Whether it's a small wireless ISP delivering internet to a community or a medium-sized ISP serving a metropolis, WiMAX is outright too expensive.

But this doesn't reduce their need for broadband wireless – the simplest, most cost-effective, and rapid way of delivering profitable services. And, if WiMAX isn't an option, then what is?



Alloyant Technologies is a maker of inexpensive, down-to-earth, yet powerful wireless access solutions. Offered as a true WiMAX alternative, the StreamStar product line does what WiMAX is supposed to – it delivers high-speed, fixed wireless Internet access to subscribers in its coverage area. Deploy a base station (at a fraction of the cost of a WiMAX system), put neat outdoor subscriber units on rooftops, and that's it.

Not only can small networks benefit from the simplicity, power and cost-saving – so can larger ones. All kinds of networks can benefit from the simplicity, power and cost-saving. One is GhettoNet out of Lagos, Nigeria. GhettoNet serves thousands of subscribers using Alloyant's wireless technology.

This technology not only serves ISPs – a caravan camp in Kuwait is using the system to give broadband wireless access to each mobile caravan. WiFi couldn't work because of the ranges involved, and WiMAX would have been too expensive – so the StreamStar technology delivers an effective solution.

On a deployment done by the U.S. Army in Iraq, the technology interconnects remote camps and provides Internet, voice and video for tenants. And because the service is free courtesy of the military, the equipment cost was important – and a WiMAX system would have cost five times as much.

For more information, please check the StreamStar pages on our website at <http://www.alloyant.com>

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