

Analysis - Home from Xohm?

By Keith Mallinson Friday, August 31, 2007

Xohm may offer impressive data speeds, but will Sprint and Clearwire be able to match the speed in building out coverage?

Sprint, in partnership with Clearwire, boasts support from Google and emerging WiMAX technology vendors Intel, Motorola, Nokia and Samsung. Making a success of it will demand residential broadband customers. Consequently, Sprint's Internet-styled Xohm service, due for launch in 2008, will be in conflict with Pivot and Sprint's cable TV partners in this joint venture.

WiMAX's key challenge is in establishing high-volume demand for equipment and services. Infrastructure market leader Ericsson focuses on 3GPP standards for next-generation mobile wireless because it needs substantial equipment volumes to impact its high market share and to drive down costs. GSM has 2.1 billion subscribers; W-CDMA/HSDPA has 130 million, growing at an annual rate of 70%. In contrast, the WiMAX Forum's Website references SenzaFiliConsulting's forecast of just 54 million WiMAX subscribers by 2012. That will be equivalent to only about 1% of the world's mobile subscriber base that year.



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WiMAX infrastructure and device vendors face formidable competition. Getting the mobile variant of WiMAX – 802.11e – standardized, interoperable and commercially available is no mean feat, but the challenge is broader. Other emerging technologies including HSDPA/HSPA or LTE, and EV-DO Rev B or UMB have similar performance capabilities as mobile WiMAX and benefit from an existing base of mobile users on related technologies and networks that can ensure broad network coverage and availability.

Coverage vs. Speed

Mobile network services also face significant economy-of-scale thresholds in coverage. Whereas fixed service carriers can deploy access technologies on a limited geographic basis, competitive mobility is only achievable with adequate coverage across the applicable geographic marketplace. There are many examples of where new wireless networks with higher performance than incumbents' have suffered with poor customer uptake until coverage is comparable. For example, adoption was slow for NTT DoCoMo's single-mode FOMA network and phones for a couple of years until its W-CDMA coverage was rolled out to match KDDI's coverage. Most demand for high-speed data was scooped up by KDDI with five times more subscribers on its CDMA2000 1X network until 2004.

Similarly, Sprint's WiMAX will only be competitive for mobile use when coverage is on par with national networks including its own CDMA2000 EV-DO network. This can be accomplished in either of two ways: by building out WiMAX to similar coverage levels or by making services backward compatible with CDMA2000 through use of dual-mode devices. With inferior propagation at 2.5 GHz compared to 1900MHz, cell sites must be significantly denser for WiMAX. It will take a lot more than Sprint's budgeted \$5 billion by 2010 to match its CDMA2000 footprint. Backward compatibility with dual-mode device roaming will be offered, but only to Sprint customers. Xohm's distribution, however, will be separate, with network discovery and registration independent of Sprint's regular services, without backward compatibility to CDMA2000 and with no equipment subsidies.

A Name for the Service

Last month, Sprint Nextel branded its forthcoming WiMAX network Xohm. The carrier said it will spend about \$5 billion building out the network by 2010, expects there will be 50 million devices for it by then, and will generate revenue of \$2 billion to \$2.5 billion that year.

Sprint says that speed is everything. However, speed is zero where there is no coverage. Users will not be willing to pay a premium price for Xohm service over fixed broadband until it provides the coverage and mobility of the prevailing 3GPP and 3GPP2 technologies. In the absence of this, there is a viable business model for Xohm. That is to compete directly against cable and DSL on the basis of speed and price for residential broadband connections in the places where it can offer a strong signal. Sprint has a lot of spectrum – around 80 MHz nationwide. Uniquely, Sprint was able to acquire this for a song. This will make it possible to deliver high speeds, large capacities, low cost and with aggressive pricing.

But targeting residential broadband users is in direct conflict with Pivot. This joint venture was conceived to be the “pivot” around which consumers will interact with the quad-play services of TV, cable modem Internet access, wireline and cellular telecommunications.

Comcast, Time Warner Cable, Cox Communications and Advance/Newhouse Communications created the \$200 million, 20-year joint venture with Sprint in November 2005 and started launching services in late 2006. It is difficult to see how Pivot can co-exist with subscriber acquisition-hungry Xohm in 2008-2010. Sprint has far more skin in the game with WiMAX than with the joint venture. Most ventures across many industries have poor track records. Similarly, Pivot is already under threat with the introduction of Xohm.

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Paul Saleh, Sprint’s CFO, said the operator will spend \$2.5 billion by the end of 2008 building out the network, with an additional \$2.5 billion earmarked for the following two years. Saleh predicted that 80% of revenue generated in 2010 will come from new sources.

The company plans to have a soft launch of WiMAX in Chicago and the Baltimore-Washington, D.C., markets by the end of this year, while the commercial launch in 2008 will reach cities with 70 million people by the end of that year. Its partnership with Clearwire will add another 30 million POPs. It expects to cover 125 million people by the end of 2010.