US Telcos Will Turn to WiMAX Within 18 Months

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The improving costs of Worldwide Interoperability for Microwave Access (WiMAX) deployment will spur alternative telecommunications carriers to turn to the technology as a viable business model as early as 2006, according to research by META Group (Nasdaq: METG), a leading provider of information technology (IT) research, advisory services, and strategic consulting. Further cost reductions will accelerate WiMAX deployment through 2007, creating a third legitimate option beyond traditional copper wires and voice over IP (VoIP) for local voice service.

According to META Group analysts, and as evidenced by the mass exit of long-distance carriers from consumer markets, rising access costs have reduced opportunities within local markets for non-incumbent operators. Leasing local copper lines from incumbent local exchange

carriers (ILECs) has proven to be a flawed and unworkable business model for long-distance carriers.

With the departure of long-distance operators from the consumer market, the FCC projects that local voice competition will take the form of "intermodal competition," emphasizing the battle between wireless and wireline carriers, and between DSL and cable broadband operators. META Group projects that WiMAX will enable alternative carriers to regain a foothold in the market and offer consumers another service option..

"The economics of the 'wireless local loop' will drive alternative carriers to leverage WiMAX technology, resulting in enhanced competition in the consumer voice market," said David Willis, vice president with META Group's Infrastructure Strategies service. "Wireless economics have already proven true in mobile voice services, where the cost per line is 40% of the cost per equivalent wireline services. We expect these same economies to hold true in wireless data using WiMAX."

WiMAX technology is based on the IEEE 802.16 series of standards for broadband wireless. Although WiMAX does not create a new market, it enables standardization of the technology required for the volume economics that reduce costs and enable broader market growth. Accordingly, META Group predicts that WiMAX will prove economically beneficial for alternative carriers in the following four key areas:

1. Reduction of Capital Expenses: By 2007, the total capital cost per customer will be less than $240. In addition, the per-customer equipment costs will improve in 2006/07 as WiMAX emerges as an embedded solution in notebooks and PDAs, delivering true portable wireless broadband without external client premises equipment. By 2008, the cost per customer will be dramatically reduced to less than $80 per client.

2. Reduction of Operational Expenses: Operational costs will be cut by 41%, compared to current wireline operation costs.

3. Reduction of Customer Turnover: By emphasizing centralized deployment and customer self-service, carriers will reduce turnover through increased customer satisfaction and will reduce expensive truck rolls by 53% from current levels.

4. Service Differentiation: Current fixed broadband offerings cannot provide mobility. With the explosion of VoIP during the same period, mobility will become increasingly more important. With WiMAX and VoIP, operators will be able to offer a voice service for both fixed lines and mobile users in a metropolitan area.

META Group's Infrastructure Strategies service features a staff of experienced analysts, including internationally recognized experts across all infrastructure platforms, from the mainframe to personal devices; published authors and editors; former consultants, CTOs, and marketing executives; and leading authorities on servers, telecommunications, databases, end-user devices, and network architectures. The Infrastructure Strategies service is just one of several comprehensive technology, executive, and industry advisory services provided by META Group — and is just one part of the company's overall solution set, which includes in-depth research, publications, structured relationships, and strategic consulting.

About WiMAX

IEEE 802.16 is working group number 16 of IEEE 802, specializing in point-to-point broadband wireless access. It also is known as WiMAX, an acronym that stands for Worldwide Interoperability for Microwave Access.

WiMax does not conflict with WiFi but actually complements it.

WiMAX is a wireless metropolitan area network (MAN) technology that will connect 802.11(WiFi) hotspots to the Internet and provide a wireless extension to cable and DSL for last mile broadband access. 802.16 provides up to 31 miles of linear service area range and allows users connectivity without a direct line of sight to a base station. The technology also provides shared data rates up to 70 Mbps, which, according to WiMax proponents, is enough bandwidth to simultaneously support more than 60 businesses with T1-type connectivity and hundreds of homes at DSL-type connectivity.

An important aspect of the 802.16 is that it defines a MAC layer that supports multiple physical layer (PHY) specifications . This is crucial to allow equipment makers to differentiate their offerings .

WiMax is referred to as 'WiFi on steroids'. It has the potential to enable even more millions to access the internet wirelessly, cheaply and easily. The WiMax wireless coverage is in square miles while that of WiFi is in the medium range. A WiMax base station would beam high-speed Internet connections to homes and businesses in a radius of up 30 miles; these base stations will eventually beam to an entire metropolitan area, making that area into a WMAN and allowing true wireless mobility within it, as opposed to hot-spot hopping required by WiFi. The proponents are hoping that the technology will eventually be used in notebook computers and PDAs. Although true roaming cell-like wireless broadband is IEEE standard 802.20, which is compatible with WiMax.