WiMAX Forum® Launches Industry Initiative to Accelerate Technology Roadmap to Meet Explosive Market Demand

In response to the intensifying demand for 4G WiMAX networks and services, the WiMAX Forum has launched a global initiative to accelerate advanced WiMAX features that enhance the average performance of its current Release 1 technology by more than 50 percent while remaining compliant with the IEEE Standard 802.16e. Based on this accelerated schedule, certified products using these enhancements are expected in late 2010.

This initiative will not delay the development of WiMAX Release 2 (WiMAX 2). In support of the expected completion of the IEEE Standard 802.16m in the second half of 2010, the WiMAX Forum is fast-tracking profiling and certification activities to prepare for WiMAX 2 product certification in late 2011.

WiMAX operators are providing an unprecedented amount of data, with some networks delivering over 10 gigabytes per month to the average user. Even without dramatic growth in average customer demand, successful expansion of the customer base can threaten network overload. The WiMAX Forum has recognized operator needs for more advanced technologies to future-proof their networks in the face of these inexorable trends.

“With the global demand for 4G wireless broadband services experiencing explosive growth, WiMAX service providers need faster networks with greater capacity and efficiency, and the WiMAX community has responded,” said Ron Resnick, president and chairman of the WiMAX Forum.

“There is no country where this demand is as pronounced as it is in India, where there is less than three percent broadband penetration. WiMAX can address this demand as well as the growing needs around the globe, plus we’re committed to taking performance to the next level in an unmatched timeframe.”

Enhancements under development include support for additional MIMO antennae on the base stations (4 transmit antennae instead of 2), higher order (64 QAM) modulation on the uplink, downlink beamforming, and improved fractional frequency reuse (FFR) to increase performance in reuse 1 deployments while ensuring multi-vendor interoperability. These new features have the potential to double peak data rates and increase average and cell edge end user performance by 50 percent.

The WiMAX Forum is pioneering new levels of open network interoperability and performance in 2010 by driving Release 1 technology forward to meet the needs of operators concerned about future constraints brought about by their own success. With the completion of IEEE Standard 802.16m later this year, the WiMAX Forum is

also set to expedite WiMAX 2 technology into the hands of operators and consumers. Because the market is already seeing 802.16m products in development, the WiMAX Forum is preparing for certification of Release 2 products in late 2011.

"The intense technical work in IEEE 802.16m has benefitted from a dedicated international collaboration among the world's leading telecom equipment manufacturers, technical organizations, and universities in support of future-looking worldwide operator requirements," said Roger Marks, Vice President for Technology at the WiMAX Forum and Chair of the IEEE 802.16 Working Group.

"Organizations such as the Center of Excellence in Wireless Technology (CEWiT) Chennai, the Indian Institute of Technology Bombay (IITB) and the International Institute of Information Technology Bangalore (IIITB) have contributed major innovations to help us bring this advanced technology to market."

WiMAX 2 is based on IEEE Standard 802.16m, which is documented to meet the International Telecommunications Union's "IMT-Advanced" requirements, delivering dramatic improvements in coverage and capacity that will form the foundation of the next decade of 4G technology. The standard provides for huge peak (zero path loss) transmission rates – for example, up to 300 Mbps in a 20 MHz downlink channel – and even lower latency.

By enabling aggregation of multiple RF carriers, wider effective channel bandwidths of up to 100 MHz are possible. Wider channels and higher order MIMO antenna configurations enable the scaling of capacity to many times that of the most advanced wireless systems today.

The WiMAX Forum currently tracks 559 WiMAX deployments in 147 countries estimated to cover more than 620 million people across the globe. More than 130 devices and 60 base stations have been certified by the WiMAX Forum for the 2.3 GHz, 2.5 GHz and 3.5 GHz bands.

Source URL (retrieved on *07/28/2014 - 5:35am*):
http://www.wirelessdesignmag.com/product-releases/2010/05/wimax-forum%C2%AE-launches-industry-initiative-accelerate-technology-roadmap-meet-explosive-market-demand