

WiMAX Rollout Continues Progress Toward 4G Wireless

From August 2008 *High Frequency Electronics*
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The activity in WiMAX system development and construction continues at a rapid pace. The news items below represent some specific recent activities, while the technical article that follows this report covers an important test-related topic: proper techniques for measuring WiMAX channel power.

WiMAX in the U.S.

Sprint will launch WiMAX in Baltimore in September, with Chicago and D.C. to follow. Clearwire will launch a system in Portland by fourth quarter, then Atlanta, Las Vegas, and Grand Rapids, Mich. Sprint and Clearwire have an application pending before the FCC to operate as a joint venture. Other major wireless carriers are concentrating on LTE technology, however, there is a strong effort by Intel and others to combine WiMAX and LTE into a single standard, which would greatly enhance interoperability.

WiMAX in Europe

The European Commission has completed and published an important new regulation relating to the 2.6 GHz (2500-2690 MHz) frequency band. The 2.3, 2.6 and 3.5 GHz frequencies are key bands for Mobile WiMAX technology and will contribute to providing suitable spectrum for WiMAX consumer and business services around the world.

The 2.6 GHz decision was unanimously supported in the European Commission's Radio Spectrum Committee, and it allows European Union administrations to make decisions related to the technology, services and usage that can be deployed within the band. It also offers administrations flexibility over the balance of paired (FDD) and unpaired (TDD) spectrum that can be awarded to operators, and provides the essential technical framework. The intention is that the market can decide which technology to deploy in this band, determine the most appropriate use of this spectrum, and create significant opportunities through opening the spectrum, which will benefit all consumers. With the 2.6 GHz regulations now in place, EU administrations can proceed with spectrum awards for this band as a matter of priority.

Global WiMAX

INDIA—The WiMAX Forum reports that the Department of Telecommunications of India has allocat-

ed, and will auction, the 2.3 and 2.5 GHz frequency bands. The availability of these key bands for WiMAX technology in India will provide its consumers with much needed broadband connectivity across the diverse economic and social needs of the entire population. The auction will distribute two 20 MHz blocks in both the 2.3 and 2.5 GHz bands. The government also announced that blocks in the 700 MHz and 3.3-3.6 GHz bands will be auctioned as they become available. The WiMAX Forum plans to add an Indian certification lab to its existing network by the end of 2008.

BRAZIL—Proxim Wireless Corporation has announced that its WiMAX Forum Certified™ Tsunami MP.16 base stations and subscriber units were chosen to support a special WiMAX deployment in Parintins, Brazil, as part of the Intel World Ahead Program, an initiative in which Intel plans to invest more than US\$1 billion globally over the next five years to bring wireless voice and data to residents of developing nations. WiMAX is a standards-based technology that enables the delivery of last mile wireless broadband access as an alternative to cable and DSL.

Parintins, a town on an island in the Amazon River reachable only by boat or plane, is home to 114,000 residents. In partnership with Intel, Proxim Wireless and other collaborators installed a state-of-the-art WiMAX network connecting a primary healthcare center, two public schools, a community center, and Amazon University.

MEXICO—Redline Communications Inc. and Intel Corp. have successfully deployed Redline's RedMAX system to establish the advanced WiMAX network in Malinalco, Mexico, located in a mountainous region seventy seven kilometers south west of Mexico City. The network deployment is also part of Intel's World Ahead Program, which improves education by empowering teachers and preparing students for success in the global economy through programs, resources, and the application of advanced broadband wireless technology.

The joint initiative also includes the Union of Entrepreneurs for Educational Technology (UNETE), a Mexican nonprofit organization whose mission is to improve the quality of Mexico's public schools by providing computers and training through broadband wireless connectivity and AXTEL, Mexico's nationwide carrier who offered logistics, implementation services and the 3.5 GHz spectrum required for the project.