

WiMAX Forum News

Weekly Clip Report July 7 – 13

Articles of Note

WiMAX Forum Pushes Mobility, July 12, Wireless Week

The fixed version of WiMAX is just now getting deployed in various parts of the globe, but the WiMAX Forum is out pumping up interest in the next generation, mobile WiMAX. Forum members insisted at an online briefing today that potential customers "are ready and waiting" for a wireless broadband technology as an alternative to DSL and cable modems. Even though mobile WiMAX won't see broad deployments until 2008, forum members said it has several advantages over evolving cellular air interfaces and other emerging broadband wireless technologies such as the Qualcomm-led IEEE 802.20 effort. The forum discussion also suggested mobile WiMAX will be a complement to cellular air interfaces, with the possibility of roaming between mobile WiMAX networks and a UMTS or EV-DO network.

<http://www.wirelessweek.com/toc-newsat2direct/07/12/06?starting=5>

Offering Premium Services Over Wimax, July 12, Telephony World

Like the evolution of voice services, broadband data services are rapidly migrating from a single provider, fixed connection environment to a multiple provider, wireless offering. The promise of wireless broadband is that, regardless of where a subscriber is located or the current capabilities of the incumbent wireline service provider, broadband data services are readily available over the air. One wireless delivery technology that makes this both possible and practical is WiMAX. Whether due to its sheer bandwidth capabilities or emerging extensions that will add mobility, WiMAX's ability to enable premium mobile broadband services is unparalleled. Its underlying media access control (MAC) protocol, borrowed substantively from the cable industry's DOCSIS standard, offers wireless service Internet providers (WISP) the ability to precisely manage the quality of service (QoS) to the individual subscriber and application in real time.

<http://www.telephonyworld.com/cgi-bin/news/viewnews.cgi?category=all&id=1152754660>

Skyriver to Provide Wireless Connectivity for WiMAX Forum Conference, July 12, TMC Net

Skyriver Communications announced today that it has been selected by WiMAX Forum as the provider of wireless wide area network (WAN) services for its member conference in San Diego, CA this week. Skyriver was selected from a number of telecommunications providers in Southern California because of its network architecture and the ability to provide the business critical bandwidth that the show requires. "We welcome the opportunity to work with the WiMAX Forum to address their connectivity requirements in San Diego," said Brad Slavin, Vice President of Engineering for Skyriver Communications. "We are confident that the quality and caliber of service will exceed the WiMAX Forum's expectations. Skyriver has engineered its network to cater to the high bandwidth demands of Enterprise customers in Southern California." Slavin continues, "Skyriver plans to be the first provider in Southern California to implement a full WiMAX overlay on its network."

<http://ipcommunications.tmcnet.com/news/2006/07/12/179476.htm>

<http://voipforsmb.tmcnet.com/news/2006/07/12/115193.htm>

<http://www.tmcnet.com/usubmit/2006/07/12/1713514.htm>

<http://www.bbwxchange.com/publications/page1409-172699.asp>

WiMAX Forum Taps VeriSign, July 13, Wireless Week

VeriSign has been selected by the WiMAX Forum to act as a single-source for a device authentication standard across broadband wireless networks in an effort to promote industry interoperability. The agreement calls for VeriSign to operate the WiMAX root CA. The VeriSign Custom Device Certificate Service (CDCS) is designed to enable embedding X.509-standard digital certificates into all WiMAX Forum

Certified hardware devices based on IEEE 802.16-2004 and ETSI HiperMAN 1.2.1 standards. Using strong certificate-based authentication allows service providers to ensure network access, digital content and software services can be secured from unauthorized access, VeriSign says.

<http://www.wirelessweek.com/toc-newsat2direct/07/13/06?starting=7>

<http://www.itwire.com.au/content/view/4952/127/>

<http://www.dailytech.com/article.aspx?newsid=3274>

<http://www bbwexchange.com/publications/page1409-172255.asp>

http://telephonyonline.com/wimax/news/wimax_forum_verisign_071406/

BWA / WiMAX Adoption in India will Depend on Very Low Cost End-To-End Pricing for Connectivity, July 12, Business Wire

Research and Markets (<http://www.researchandmarkets.com/reports/c39346>) has announced the addition of India Broadband Wireless and WiMAX Market Analysis and Forecasts: 2006-2012 to their offering. This study provides a detailed review of current regulatory and overall wireless market trends in India. Broadband services were launched in India in 2005. ADSL services now cover 300 towns with 1.5 million connections while broadband wireless subscriber figures are still negligible. In a country where monthly broadband ARPU is estimated at \$8-10, and computer penetration is still at around 4%, BWA / WiMAX adoption will depend on very low cost end-to-end pricing for connectivity including the compute platform and CPE.

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20060712005038&newsLang=en

Sequans Starts Mobile WiMAX Race, July 11, GigaOM

With Clearwire and the launch of WiBro, WiMAX and its mobile derivatives have been in the news a lot lately. The latest is Paris-based Sequans, a fabless semiconductor company, which says it has started shipping its mobile WiMAX station chips to test with its customers, for use in mobile devices like cell phones, PC cards, and USB dongles, as well as fixed devices. The company is part of a gaggle of start-ups that are pushing mobile WiMAX silicon, and now that Korea's WiBro network is officially up and running there's actual customers. Sales of WiMAX equipment is estimated to top \$3 billion by 2010 says research firm Instat. Fujitsu, Runcom, TeleCIS, Wavesat, and Samsung are all competing for business, and Korea's WiBro network will be a really interesting test case to see which WiMAX chip companies find favor with phone makers and operators.

<http://gigaom.com/2006/07/11/sequans/>

http://www.marketwire.com/mw/release_html_b1?release_id=142929

STMicroelectronics: WiMAX adoption does not depend exclusively on Intel, July 11, DigiTimes Systems

Thanks to its frequent appearances on the stage of IDF (Intel Developer Forum) conferences, WiMAX (Worldwide Interoperability for Microwave Access) technology is often considered as a wireless solution that mainly depends on the microprocessor giant, at least, in terms of mass adoption. However, there are many other players in the WiMAX community that may have a different vision of the situation. One of them is Europe-based STMicroelectronics, whose WiMAX product offerings are tightly linked with 3G mobile communication technology. DigiTimes.com had an opportunity to talk to Rohit Malhotra, senior manager of STMicroelectronics' Asia Pacific communication infrastructure business unit, to learn more about the company's view of WiMAX and 3G, including some questions related to Intel.

<http://www.digitimes.com/systems/a20060711VL203.html>

WiMAX system tuned for use in 5.8GHz unlicensed band, July 11, Electronics Weekly

Wavesat has teamed with Texas Instruments to develop a miniature PCI module and reference design to push the use of WiMAX in the unlicensed 5.8GHz frequency band. The Mini-PCI development platform is

intended for the design of WiMAX-compliant wireless systems for the 5.8GHz unlicensed band. It uses Wavesat's Evolutive WiMAX DM256 chip and TI's RF silicon. According to Vijay Dube, v-p marketing and business development for Wavesat: "Because 5.8GHz is an unlicensed frequency band, it can be rapidly deployed by wireless Internet service providers around the world and especially in North America, where it is the only WiMAX Forum profile currently deployable." The reference design can be used to develop both customer premises equipment (CPE) and basestation infrastructure.

<http://www.electronicweekly.com/Articles/2006/07/11/39197/WiMAXsystemtunedforusein58GHzunlicensedband.htm>

http://www.marketwire.com/mw/release_html_b1?release_id=142537

Picochip, Grentech Signs WiMAX Deal, July 10, Wireless Design & Development Asia

Picochip has signed a development partnership agreement with China Grentech. The two companies will work together in the joint development of complete WiMAX solutions targeted at the wideband wireless access market. China Grentech will develop radio frequency solutions based on Picochip's WiMAX software-upgradeable technology. China Grentech is a telecom original equipment manufacturer (OEM). Picochip provides software defined radio solutions for the next generation of wireless systems. The company delivers complete, standard-compliant reference designs for UMTS (HSDPA, upgradeable to HSUPA) and WiMAX/WiBRO (both 802.16d and 802.16e, with support for AAS and MIMO).

<http://www.wirelessdesignasia.com/article.asp?id=2685>

<http://www.bbwxchange.com/publications/page1409-170099.asp>

<http://www.80216news.com/publications/page1299-170099.asp>

ADAPTIX Announces Issuance of US Patent for Medium Access Control (MAC) Over OFDMA Cellular Networks, July 10, Yahoo! News

The US Patent and Trademarks Office (USPTO) has issued US Patent #7,072,315, entitled "Medium Access Control for Orthogonal Frequency Division Multiple Access (OFDMA) Cellular Networks," to ADAPTIX, which is among the earliest developers of OFDMA technology. This latest patent adds to the company's portfolio of OFDMA and related technology intellectual property rights. Following the initial filing in 2000, US Patent #7,072,315 was issued on July 4, 2006 and describes a method and apparatus for controlling OFDMA-based cellular networks such as Mobile WiMAX networks.

<http://biz.yahoo.com/pnews/060710/dam013.html?.v=56>

WiMAX platform seen as ideal for niche broadband markets, July 10, Channel News Asia

Tapping into alternative technologies is one way that Singapore can achieve a more competitive wireless broadband marketplace, according to proponents of WiMAX, a standards-based wireless infrastructure. They say as more Singaporeans make calls, check e-mails or browse the Internet while they're on the go, it will be key for new market players to focus on serving niche markets. WiMAX - or Worldwide Interoperability for Microwave Access - is a wireless platform that can support video, voice and Internet applications for customers on the go. It is seen as cheaper than existing mobile technologies because it can be installed without fixed lines. And its proponents say the lower barrier to entry can help attract new players into the wireless space.

<http://www.channelnewsasia.com/stories/singaporebusinessnews/view/218310/1.html>

NZ spectrum debate highlights WiMAX regulatory dilemma, July 10, The Register

An obscure spectrum debate in New Zealand highlights the dilemmas that will be faced in many countries as broadband wireless frequencies become prime real estate instead of neglected side streets. The country's Ministry for Economic Development (MED) is threatening to take back blocks of 2.3GHz spectrum currently held by start-up operator Woosh Wireless, claiming these have been underused and that re-auctioning them would create greater competition. This row comes against a general trend for large players to take a keen interest in WiMAX-suitable spectrum, an interest that will start to sideline most of the start-

ups.

http://www.theregister.co.uk/2006/07/10/nz_wimax_spectrum_debate/

TRA in light licensing move, July 8, Trade Arabia

Bahrain's Telecommunications Regulatory Authority is planning an online system for frequency licence registration for certain types of frequency application. This system will allow individuals, businesses and operators alike to obtain a license to use WiFi and Wimax spectrum in Bahrain by simply filling in an online application form. This approach would enable companies as well as individual users to use technologies such as Wifi that rely on spectrum usage at their own premises and connect wirelessly to the Internet. It would also allow licensed Internet Service Providers in Bahrain to provide wireless internet access throughout Bahrain using technologies such as WiMax and Wireless LANs once they obtain the frequency license through the online registration system.

http://www.tradearabia.com/tanews/newsdetails_snIT_article107849.html

<http://www.bbwexchange.com/publications/page1409-170590.asp>

<http://www.80216news.com/publications/page1299-170590.asp>

Motorola to roll out mobile WiMAX solutions in 2007, July 7, DigiTimes Telecom

Motorola plans to start volume production of mobile WiMAX (802.16e) solutions, including network infrastructure and data cards, in 2007, with the company likely to cooperate with Taiwan-based makers to develop terminal-end products, according to Fang Yuan (transliterated from Chinese), technology director for the networking and business communications unit of Motorola Greater China. The planned WiMAX solutions will support both OFDM and OFDMA standards and the company's WiMAX terminal-end products will include outdoor-use CPE (customer premise equipment) products, desktop terminal-end devices, PC cards, in-car data cards and handsets, Fang added.

<http://www.digitimes.com/telecom/a20060707A9055.html>

Mesh Mash-Up, July 7, Unstrung

It's usually a sign that a market is overheating when companies start issuing dueling claims to be the "first" to introduce this piece of gear, or the "market leader" in a particular technology. That seems to be the case in the mesh-networking sector, where the advent of "WiMax-ready" and "WiMax-integrated" systems has shifted the competitive scene from a land rush (as American cities issue ever-more-grandiose proclamations of metro-wide mesh networks) to a show of technological one-upmanship (as companies boost the sizzle of their systems with superlatives of power, performance, and throughput). The latest company to up the ante is Tropos Networks Inc. , which has for some time been on the verge of releasing its first multi-radio access point. Apparently those units are now being tested on the streets of Silicon Valley.

http://www.unstrung.com/document.asp?doc_id=98716

French award WiMAX licenses, July 10, Telephony

There's no World Cup France, but there are WiMAX licenses. France's telecom regulatory body, Arcep, announced late last week that it was awarding 35 WiMAX licenses in the 3.4 GHz to 3.6 GHz frequency band. Among the license winners were France Telecom, Maxtel and Guyatel of French Guyana. Also, six local government authorities received licenses. Adlane Fella, senior analyst at Maravedis, noted that it's a new phenomenon in France for such bodies to receive frequency licenses. Fella also noted that Clearwire France was not listed among the new licensees. Just last week, Bellevue, Wash.-based Clearwire took a significant step toward WiMAX deployment in the U.S. by pulling in a combined \$900 million investment from Intel and Motorola and selling its equipment subsidiary to Motorola. Motorola, in turn, is likely to become Clearwire's chief supplier of WiMAX equipment.

Editor's Corner: WiMAX will break broadband provision duopoly, July 13 Fierce WiFi

During a particularly exasperating debate over the federal budget sometime in the mid-1950s, Senator

Everett Dirksen, the Illinois Republican who was then the Senate minority leader, famously muttered to himself: "A billion here, a billion there, and pretty soon you're talking about real money." The \$900 million investment in WiMAX provider Clearwire--Intel's \$600 million and Motorola's \$300 million--is real money. It is also good news for those who view with growing discomfort the emergence of what Public Knowledge's Art Brodsky calls broadband "duopoly." The argument that we now have a broadband duopoly is supported by a recent study from Monterey, CA-based Kagan Research.

www.fiercewifi.com

Editor's Corner, July 11, Fierce Wireless

Intel Capital's \$600-million infusion into Clearwire, the largest single investment Intel Capital has made to date, demonstrates how high the stakes are for Intel and its quest to see WiMAX succeed. The company has led standards bodies, built chips, funded early network development and pumped a lot of money into WiMAX vendors and operators to make sure this technology has a global footprint. The hope is that computer manufacturers will see that WiMAX is big enough to incorporate the technology into laptops, thus increasing the demand for Centrino chipsets. But first, it needs to have some big network operators actually committed to mobile WiMAX so that they can drive interest in WiMAX-enabled laptops.

www.fiercewireless.com

[WiMAX Forum Member Company News](#)

Intel bets US\$600 million on WiMAX, July 6, Ars Technica

Intel Capital has been busy. We reported yesterday on their multimillion dollar investment in videogame advertising, but that amount is pocket change compared to the US\$600 million Intel has just invested in Clearwire. The investment is the largest ever for Intel Capital, and it signals the company's continued interest in the WiMAX-style technology pushed by Clearwire. Who is Clearwire? The firm, headquartered up in Washington state, offers wireless Internet access based on the IEEE 802.16e-2005 standard, with plans to adopt full WiMAX compatibility when the technology finally gets up and running.

<http://arstechnica.com/news/ars/post/20060706-7200.html>

<http://www.informationweek.com/hardware/showArticle.jhtml?articleID=190300655>

<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2006/07/06/BUGS2JPVEL1.DTL>

<http://www.bbwexchange.com/publications/page1409-170032.asp>

<http://www.80216news.com/publications/page1299-170032.asp>

<http://www.wimaxtrends.com/feature.htm>

UPDATE: Moto's Clearwire move stirs WiMAX implications, July 7, Telephony

Motorola is acquiring NextNet Wireless, the broadband wireless equipment owned by Clearwire, which also has been the exclusive supplier of equipment for Clearwire's network. The deal puts Clearwire on a path to deploy Motorola's WiMAX gear, and also may have broader significance for a WiMAX community that is anxiously awaiting word from another major service provider—Sprint—about whether or not it will deploy WiMAX. The NextNet acquisition was announced in conjunction with a separate investment of \$300 million that Motorola is making in Clearwire, and a simultaneous \$600 million investment the service provider is receiving from Intel. That financing is the most money Intel Capital has ever invested in a wireless firm (It previously invested an undisclosed amount, believed to be around \$20 million, in Clearwire in late 2004). This week's funding infusion has inspired Clearwire to put off plans for the initial public offering that it filed for just two months ago, and through which it had planned to seek about \$400 million in financing.

http://telephonyonline.com/wimax/news/CLearwire_WiMAX_Motorola_070706/

Airspan To Supply WiMAX Wireless Access And VoIP Solutions To PuntoNet In Ecuador - Quick Facts, July 13, Trading Markets

Airspan Networks Inc. said it signed a contract with PuntoNet S.A. of Ecuador, for the delivery of pre WiMAX

and WiMAX equipment, using Proteco Coasin as the network integrator. The contract is valued at more than \$1 million that covers the supply, installation and maintenance of Airspan's pre-WiMAX, WiMAX and AS.TONE product lines. The company noted that the equipment will be used to develop Ecuador's first end-to-end network solution combining broadband wireless with soft switch and gateway capabilities for providing VoIP solutions.

<http://www.tradingmarkets.com/tm.site/news/BREAKING%20NEWS/304780/>

Airspan Signs Contract With Ecuador's PuntoNet To Supply WiMAX Wireless Access And VoIP Solutions – Update, July 13, Trading Markets

Airspan Networks, Inc. a provider of WiMAX-based broadband wireless access networks and carrier class Voice over Internet Protocols and Wi-Fi Hotzone systems, said Thursday that it has signed a contract with PuntoNet S.A. of Ecuador for delivery of pre WiMAX and WiMAX equipment, using Proteco Coasin as the network integrator. Airspan said the more than \$1 million contract covers the supply, installation and maintenance of Airspan's pre-WiMAX, WiMAX and AS.TONE product lines.

<http://www.tradingmarkets.com/tm.site/news/BREAKING%20NEWS/304843/>

<http://www.upi.com/Hi-Tech/view.php?StoryID=20060713-013640-5842r>

Wavesat, TI working on WiMax access card, July 12, United Press International

Texas Instruments and Wavesat are working on a reference design for a mini-PCI module that will lead to smaller and simpler WiMax wireless systems. The 5.8 Gigahertz Mini-PCI card fits into laptop computers and allows users to connect to the Internet via wirelessly via WiMax, and the companies plan to have a product commercially available by the end of the year. WiMax is a longer-range version of WiFi that is being developed to deliver wireless broadband over larger areas. The companies said in a news release Wednesday that the reference design would simplify WiMax design requirements and enable producers to get products to market faster and react quicker to trends in consumer demand.

<http://www.upi.com/Hi-Tech/view.php?StoryID=20060712-111502-3373r>

<http://www.tmcnet.com/usubmit/2006/07/10/1709614.htm>

<http://www.bbwxchange.com/publications/page1409-171810.asp>

<http://www.shorecliffcommunications.com/magazine/news.asp?news=5316>

http://www.unstrung.com/document.asp?doc_id=98782

BellSouth Expands Broadband Wireless Plans, July 10, Multichannel News

After delays due to Hurricane Katrina and the availability of needed technology, BellSouth now is looking to expand its deployment of broadband wireless services and launch a trial of WiMAX technology, which could double Internet access speeds. The Atlanta-based Bell operator recently announced its BellSouth Wireless Broadband Service will expand in the third quarter to parts of Melbourne, Fla.; Chattanooga, Tenn.; Greenville, Miss.; Charleston, S.C.; and Albany, Ga. The service, based on a pre-WiMAX technology, is already up and running in Athens, Ga.; Palatka and DeLand, Fla.; New Orleans; and Gulfport, Miss., offering residential and business users broadband Internet connections as high as 1.5 Megabits per second downstream and at upstream rates between 128 and 284 Kilobits per second. If BellSouth launches services in future markets based on standard WiMAX, that data rate could rise to 3 Mbps downstream, to the home or office.

<http://www.multichannel.com/article/CA6350821.html>

www.fiercewifi.com

Orbitel, Siemens roll out WiMax in Colombia, July 7, Engadget

Hot on the heels of last week's WiBro rollout in South Korea, Colombian long-distance operator Orbitel has teamed up with hardware manufacturer Siemens to deploy Latin America's first WiMax network in the city of Cali. The long-range wireless network, which will be duplicated in fourteen other cities in the upcoming months, employs Siemens' WayMax@dvantage (that's not a typo) system of base stations, modems, and

monitoring and control gear to ensure interoperability with future devices based on the IEEE's 802.16e-2005 standard. WiMax is a particularly attractive option in countries whose wired infrastructures are still rather limited, allowing service providers to essentially leapfrog right over current broadband solutions and offer high-speed connections with considerably less capital expenditure. Orbitel is currently selling several service packages ranging from \$39 to \$325 per month, which supposedly buys you download speeds in the range of 2Mbps.

<http://www.engadget.com,%20www.engadget.com/2006/07/07/orbitel-siemens-roll-out-wimax-in-colombia/>
<http://www.bbwexchange.com/publications/page1409-169507.asp>

Orbitel unveils WiMAX network, July 7, TeleGeography

Colombian long-distance operator Orbitel has announced that it has launched a WiMAX network in the country's third largest city, Cali. The new network provides wireless internet access using Siemens' WayMAX@vantage solution comprising base stations, modems and a monitoring and control system. Over the coming months, the company expects to deploy similar networks in a further 14 cities. According to a company statement, the WiMAX service will offer users data rates of up to 2Mbps and will support data-intensive services such as high-quality video streaming.

http://www.telegeography.com/cu/article.php?article_id=13365&email=html
<http://www.80216news.com/publications/page1299-169507.asp>

Airband expands pre-WiMAX network into San Antonio, July 11, RCR Wireless News

Airband Communications Inc., which provides fixed-wireless services to businesses, said it expanded its pre-WiMAX network into San Antonio, Texas. In addition to San Antonio, the company also provides service in Austin, Dallas/Fort Worth and Houston, Texas. Airband said its current equipment in San Antonio provides coverage for the city's Medical Center area, but it plans to expand the network into the downtown area soon.

<http://rcrnews.com/news.cms?newsId=26798>
<http://sanantonio.bizjournals.com/sanantonio/stories/2006/07/10/daily2.html>
<http://www.shorecliffcommunications.com/magazine/news.asp?news=5317>

IBA Picks Proxim Wi-Fi, WiMAX Products, July 7, EFY Times

The Indian Business Academy (IBA) in Bangalore has deployed Wi-Fi and WiMAX products from Proxim Wireless Corporation, a global provider of broadband wireless equipment, to support a campus-wide public Internet access network as well as a building-to-building wide-area network (WAN). The company has also appointed Nishchal Batra as its representative in India to better manage its broadband wireless technology operations in the country. The network at IBA has been designed and installed by Envision Network Technologies Pvt. Ltd., a systems integrator and Proxim partner. The network, that uses Proxim's ORiNOCO AP-700 access and Tsunami MP.11 point-to-multipoint products, offers standards-based, high-speed wireless or Wi-Fi access across the IBA campus.

<http://www.efytimes.com/fullnews.asp?edid=12840>
<http://ipcommunications.tmcnet.com/news/2006/07/06/177424.htm>
<http://voipforsmb.tmcnet.com/news/2006/07/06/114614.htm>
<http://www.bbwexchange.com/publications/page1409-170034.asp>
<http://www.80216news.com/publications/page1299-170034.asp>

Qualcomm's .11n Solution, July 12, Unstrung

Just in case there's any lingering doubt that 802.11n is going to be of mammoth importance, I got it straight from the mammoth's mouth. A couple of days ago, I visited with much of the senior team at Qualcomm Inc.'s R&D facility in Concord, Mass. I'll bet you didn't know the company had a place in my neck of the woods, San Diego being such a great place and all. But Massachusetts remains a hotbed of wireless activity, and, as usual, I digress. I'd had my suspicions about Qualcomm and .11n when I chaired a

symposium at MIT a few months ago on the subject of residential media distribution. Qualcomm sent Peter Lojko, whom I'd previously met when he was heading up the wireless gateway startup Watercove, and he passionately made the case for .11n in the home. I quickly accepted Peter's invitation to visit the team in Concord when he called a few weeks ago.

http://www.unstrung.com/document.asp?doc_id=99009

[General WiMAX News](#)

Pre-Wimax Multiband Radios, July 13, Wi-Fi Planet

The Pre-Wimax Multiband Dual Radio now covers 900MHz to 6.1GHz, including the popular unlicensed band (2.4/5GHz 802.11a/b/g Standard), 900MHZ Non Line of Sight unlicensed band, 2.3 to 2.7 MMDS Licensed band, 3.5Ghz Licensed band, new 3.6GHz Unlicensed band, 4.9GHz Public Safety Band, 5.150 to 5.350GHz UNII FCC US Band, 5470 to 5.725GHz ETSI Europe Band, 5.725 to 5.850GHz UNII FCC US Band and future Licensed and Unlicensed Band. The Pre-Wimax Multiband Dual Radio comes with 2 Radio Slot to select between several Mini PCI modules the frequency you need, high output power and Firmware with advanced software characteristics based on Linux OS allowing to cover long distances up to 50 miles or 80 Km. All of these characteristics transform this radio into the most complete and advanced of the world.

<http://products.wi-fiplanet.com/wifi/wimax/1152333067.html>

Micronetics (NOIZ) Receives \$1M Follow-on Order for WiMAX Power Amplifiers, July 13, StreetInsider.com

Micronetics, Inc. (NASDAQ: [NOIZ](#)) said its Stealth Microwave subsidiary was awarded a follow-on order from a European customer totaling approximately \$1 million for high performance power amplifiers. The company said the units enable connectivity and high throughput in WiMAX access points and base station equipment. David Robbins, President & CEO of Micronetics, said, "We view this order as the beginning of future build-outs of WiMAX equipment and next generation sub-systems, and remain enthusiastic about the future of this evolving market."

<http://www.streetinsider.com/news.php?id=1031136&st=p>

http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20060713005656&newsLang=en

DiGi looks set to bid for WiMAX after 3G blues, July 14, Business Times

DIGI.COM Bhd, the country's smallest mobile operator, may submit a bid as early as next week to the telecommunications regulator for a licence to offer high-speed wireless Internet services under a new technology. Business Times was told by the people involved in preparing the submission that DiGi, 61 per cent controlled by Norway's Telenor, is prepared to spend as much as RM500 million if it is successful. The Worldwide Interoperability for Microwave Access technology, or commonly known as WiMAX, is similar to a long-range version of the popular Wi-Fi technology that lets computers near a small base station surf the Internet without wires.

http://www.btimes.com.my/Current_News/BT/Friday/Frontpage/BT576869.txt/Article/

Ertach expands WiMAX networks, July 13, TeleGeography

Argentine broadband provider Ertach has extended its WiMAX networks in the provinces of Buenos Aires and Tucumán, according to BNamericas. The company claims to have invested nearly USD200,000 to migrate two nodes in the cities of Bahía Blanca and San Miguel de Tucumán to WiMAX. The wireless broadband technology will allow connections of 4Mbps in a radius of 20km from the centre of each city. BNamericas recently reported that Ertach's goals this year include expanding its national backbone with an investment of USD10mn, implementing a communications network for Buenos Aires province and

increasing WiMAX penetration.

http://www.telegeography.com/cu/article.php?article_id=13448&email=html

Arcep issues regional WiMAX licences, July 12, TeleGeography

The French telecoms regulator Arcep has awarded regional licences for WiMAX technology as part of plans to ensure that the country has nationwide WiMAX coverage by 2008. The concessions have been allocated to a total of 15 companies and six regional councils, in the process generating USD159.2 million for state coffers. Maxtel, a bidding vehicle which includes motorway operator APRR and alternative telco Iliad, won 13 licences. A further twelve permits were awarded to Bolloré Telecom, owned by the Bolloré Group and Aeroports de Paris (ADP), while HDRR, a consortium that includes Bouygues Télécom, won eleven. SHD, backed by SFR and neuf Cegetel, won two concessions, but France Télécom only received licences to offer WiMAX in French Guyana and Mayotte.

http://www.telegeography.com/cu/article.php?article_id=13420&email=html

Broadband competition? Not so much, July 12, Ars Technica

How real is broadband competition? A new study out from Kagan Research suggests that there's not much competition where it matters: price. Though many US markets have access to both DSL and cable modems, no pricing battles have erupted between the two services, and none are expected in the near future. What has happened is that a two-tier market has developed instead, one where cable does not need to compete with DSL on price because it is considered a "premium" service with higher speeds. In the first part of this year, the US average for cable modem service was US\$39.45 a month, while DSL was slightly less expensive at US\$35.38. The cheapest ISP was Verizon; the most expensive was BellSouth. DSL's price advantage seems responsible for its faster growth rate, but cable is still growing strongly enough that the industry does not yet need to engage in a price war to lure new customers.

<http://arstechnica.com/news.ars/post/20060712-7242.html>

UMC, NTU partner on RF chip for WiMAX, July 11, Electronic Engineering Times

United Microelectronics Corp., a global semiconductor foundry, and National Taiwan University announced recently that their research collaboration has resulted in the delivery of a fully-integrated RF receiver design for WiMAX. According to the press release, the LNA in the 0.18µm RF receiver demonstrated the lowest noise figure (1.78dB) in a 5GHz range. The receiver radio frequency front end with a 1V operating voltage also achieved a low noise level of 5.6dB. The receiver adopted a new type of system architecture that is said to suppress the DC offset resulting from direct conversion receivers well below noise levels. This design will be packaged as an IP for commercial applications.

http://www.eetasia.com/ART_8800424929_499488_312e7e13200607.HTM

Race on in fast mobile data, July 11, Australian IT

OPTUS and Vodafone will begin trials of high-speed mobile data technology on their shared third-generation network from next month as they push to keep pace with rivals Telstra and Hutchison. The high-speed network upgrade is expected to cost \$100 million and commercial services are expected to start by late this year. All of Australia's mobile networks are racing to improve data speeds in a bid to increase revenues amid continuing price wars in mobile voice services. They are also preparing to compete and co-operate with WiFi technology, and its emerging, faster successor WiMax.

<http://australianit.news.com.au/articles/0,7204,19747559%5E15306%5E%5Enbv%5E,00.html>

WiMAX woes, July 10, TeleGeography

The New Zealand government is sticking to its plan of reallocating 2.3GHz spectrum once the current rights to the frequencies expire in 2010. The 2.3GHz band, which can be used for WiMAX wireless broadband services, is currently split into twelve packages of 8MHz, with four firms - Woosh Wireless, BCL, Telecom NZ and Sky - controlling the spectrum until November 2010. According to local newspaper The Dominion Post, the government is considering a plan to re-package the spectrum into three 30MHz blocks, with a sale

possible before the end of this year. But Woosh Wireless, which negotiated deals with other spectrum holders to give it more than 30MHz of frequencies in the 2.3GHz band, says the government's proposal will force it to halt its rollout plans and delay the development of WiMAX in New Zealand. The government claims that if current spectrum owners are unable to retain rights to their frequencies beyond 2010 then they will be able to sell these rights on to the new owners, thus freeing up the spectrum immediately.

http://www.telegeography.com/cu/article.php?article_id=13392&email=html

<http://www.stuff.co.nz/stuff/0,2106,3725769a28,00.html>

Mimix Broadband, Inc. Introduces Family of WiMAX Power Amplifiers, July 7, Broadband Wireless Exchange

[Mimix Broadband](#) introduced a family of internally pre-matched power amplifiers designed for linear WiMAX applications at 700 MHz, 2.5 GHz and 3.5 GHz. These devices are processed in a highly repeatable InGaP high voltage HBT process and include on-chip diodes for ESD protection. This family of devices achieves 11 dB of gain and less than 2.5% EVM at 30 dBm output power, with an OFDM input signal and a peak to average ratio (PAR) of 9 dB. The devices operate off a single supply voltage up to 12V and include internal active bias circuitry. The CHV family includes the added feature of analog adjustment of bias current to address a variety of applications. These linear power amplifiers, identified as CHV2707, CHV2710 and CHV2711, operate at 700 MHz, 2.5 GHz and 3.5 GHz respectively. Evaluation boards are available to help engineers test the products and apply them to their designs.

<http://www.bbwxchange.com/publications/page1409-170117.asp>

<http://www.80216news.com/publications/page1299-170117.asp>