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## INTRODUCTION

Dear WiMAX Community,

We would like to begin this month's edition by congratulating **UQ Communications** on its continued growth. The Telecommunications Carriers Association of Japan recently released figures showing that UQ Communications exceeded the 3 million subscriber mark, and has gained more new subscribers in July than its competitors. Congratulations to UQ! More detailed information can be found on the following link: **TCA Website**

For the past few months, the **Smart Grid Working Group** has been hard at work collaborating on technical specifications for WiGRID™, a new IEEE 802.16 system profile being developed by the **WiMAX Forum** against the requirements of the Utility companies.

As a part of this effort, the WiMAX Forum recently announced its first **WiGRID PlugFest, to be held in Vancouver, BC from September 10 - 14, 2012**. The WiGRID PlugFest, hosted by **Powertech Labs Inc.** and scheduled to coincide with **UTC Canada 2012**, will bring a mix global utility company experts and equipment vendors to engage in hands-on testing of equipment.

The event will specifically provide an opportunity for WiMAX equipment manufacturers serving the utility space to test the interoperability of their products against use case scenarios specifically drafted by the Utility Industry. This event marks the WiMAX Forum's first phase of interoperability testing for WiGRID technology, and will showcase the capabilities of WiMAX Field Area Networking and Smart Grid equipment. For additional details and to register for this event please visit: **WiGRID PlugFest 2012**.

The WiMAX Forum is also pleased to announce the success of its WiMAX Caribbean 2012 event. WIMAX Caribbean, co-hosted with **CANTO**, discussed a host of issues critical to Caribbean operators. The WiMAX Forum would like to extend a special thank-you to CANTO for partnering with us on the event. You can find greater details below on the newsletter under **Session Highlights**.

The WiMAX Forum is also happy to announce its support of this year's **4G World Conference & Expo**. WiMAX Forum President **Declan Byrne** will join the program to discuss **WiMAX for industrial applications**, and the Forum is offering a discount on registration for WiMAX Forum members!

We at the WiMAX Forum wish you all a wonderful and prosperous month. We hope to see you at 4G World!

Best Regards,

The WiMAX Forum

## EVENTS UPDATE

The WiMAX Forum is hosting and participating in a number of events in the next several months. You can find the detailed information on each of these events below:

## WiMAX Forum Member Conference in Sofia 2012

The WiMAX Forum is delighted to announce the next **WiMAX Forum Member Conference** which will take place October 15-18, 2012 in beautiful Sofia, Bulgaria.

Sofia is the capital and largest city in Bulgaria located at the foot of Mount Vitosha. From Roman ruins and ancient churches, to small shops and charming cafes – Sofia has it all. It is known as “Europe’s most compact and walkable capital city” and is home to many historic sites, including the Alexander Nevski Church, considered one of the finest cathedrals in Europe.

For the meeting venue, we have secured the luxurious 5 star **Sheraton Sofia Hotel Balkan**, ideally located right in the heart of the city, with easy access to main shopping areas, restaurants, and sightseeing. The oldest building in Sofia, dated 4th century – the Rotunda of St. George – is located right in the courtyard of the Sheraton hotel, and the hotel itself is recognized as one of the city’s architectural landmarks.

We have negotiated an outstanding rate of **100 Euros per night**, which includes breakfast buffets and in-room wireless Internet. Please visit the event website for hotel reservation instructions and the reservation form. Please note that the **hotel cut-off date is September 15, 2012**. Please make your reservations early!

**Sofia Member Conference Website** – please click here for details and registration.

## WiMAX Europe 2012

The WiMAX Forum is also pleased to announce the next event in the WiMAX Forum 2012 Operator Summit Series: **WiMAX Europe 2012**, to be held at the **Sheraton Sofia Hotel Balkan**, on October 16th, 2012. This event will focus specifically on supporting the European operator community in managing profitable development and growth of their WiMAX networks.

**The WiMAX Forum will be hosting a cocktail reception for networking purposes on the evening of October 16th that will be open to attendees of both events.**

WiMAX Europe 2012 is an event for all participants, both operators and vendors, to meet, exchange ideas and develop business and cooperative relationships. The event will highlight the opportunities, challenges and strategies involved in operating a profitable WiMAX network in Europe.

WiMAX Europe 2012 will be an interactive working event, and there will be no registration fee. Participation in this event is free and open to all participants of the WiMAX ecosystem, and membership in the WiMAX Forum is not a requirement for to attend.

To register for this event please visit: **WiMAX Europe 2012**

## WiGRID™ PlugFest 2012

The WiMAX Forum inaugural **WiGRID™ PlugFest 2012** will be held in Vancouver, BC from September 10 - 14, 2012. The WiGRID PlugFest, hosted by Powertech Labs Inc. and scheduled to coincide with UTC Canada 2012, will bring a mix global utility company experts and equipment vendors to engage in hands-on testing of equipment. The event will specifically provide an opportunity for WiMAX equipment manufacturers

serving the utility space to test the interoperability of their products against use case scenarios specifically drafted by the Utility Industry. This event marks the WiMAX Forum's first phase of interoperability testing for WiGRID technology, and will showcase the capabilities of WiMAX Field Area Networking and Smart Grid equipment.

**WiGRID** is a new IEEE 802.16 system profile being developed by the WiMAX Forum against the requirements of the Utility companies. WiGRID contains important new features that optimize IEEE 802.16 standard's based WiMAX equipment for a range of Field Area Networking applications and use cases.

The WiGRID PlugFest will allow multiple WiMAX equipment suppliers to conduct an extensive series of interoperability tests to showcase their capabilities to the Utility Ecosystem. Participants will test equipment in multiple frequency bands, allowing vendors to conduct testing at higher layers demonstrating interoperability across a number of different applications.

There is no registration fee to WiGRID PlugFest; participation in this event is free to utilities and vendors, and **membership in the WiMAX Forum is not a requirement for participation at this time.**

For additional details and to register for this event please visit: [WiGRID PlugFest 2012](#)

## WiMAX Africa 2012

**WiMAX Africa 2012 will be collocated with Informa Telecom & Media's AfricaCom on Tuesday, November 13th, 2012 at the Cape Town Convention Centre in Cape Town, South Africa.** Last year's WiMAX Africa event attracted 95 attendees including 23 representatives of 18 different WiMAX operators. This year's event will focus specifically on supporting the African operator community in developing and managing profitable growth of WiMAX network deployments.

WiMAX Africa 2012 is an event for all participants, both operators and vendors, to meet, exchange ideas and develop business and cooperative relationships. The event will highlight the opportunities, challenges and strategies involved in operating a profitable WiMAX network in Africa.

WiMAX Africa 2012 will be an interactive working event, and **there will be no registration fee.** Participation in this event is free and open to all participants of the WiMAX ecosystem, and **membership in the WiMAX Forum is not a requirement for to attend.**

To register for this event please visit: [WiMAX Africa 2012](#)

## WiMAX Oil & Gas 2012

**WiMAX Oil & Gas 2012 will be collocated with OilComm 2012 on Tuesday, November 6th, 2012 at the Marriott Westchase in Houston, TX.** The event will focus specifically on supporting the Oil & Gas community in deploying effective and affordable WiMAX networks to support their communication initiatives.

Operators and vendors are all invited to this event to meet, network and discuss ideas to foster a prosperous environment and future of the WiMAX Oil & Gas ecosystem. The event will also highlight the opportunities, challenges and strategies involved in operating a profitable WiMAX Network. More information on the event, including registration page will be available soon.

## WiMAX Forum Upcoming Events 2012

- **Antenna Systems 2012 to be held on September 18-19, 2012 in Denver, CO..** For more information about the event please visit: [Antenna Systems 2012](#).
- **4G World 2012 to be held on October 29 – November 1, 2012 in Chicago, IL..** For more information about the event please visit: [4G World 2012](#). WiMAX Forum members will receive a special discount of **\$100** on the registration. Please email [Alessandra.Rocha@WiMAXForum.org](mailto:Alessandra.Rocha@WiMAXForum.org) for the discount code.
- **4G Latin America 2012 on November 14-15 in Bogota, Colombia.** For more information about the event please visit: [www.4glatinamerica.com](http://www.4glatinamerica.com). WiMAX Forum members will receive a special discount of **\$200** on the registration. Please email [Alessandra.Rocha@WiMAXForum.org](mailto:Alessandra.Rocha@WiMAXForum.org) for the discount code.
- **WiMAX Middle East 2012** to be held in Dubai, United Arab Emirates, on December 3, 2012, more information coming soon.

For more details about our events please visit: [WiMAX Forum Events](#).

If you have any questions regarding the events, please contact WiMAX Forum Event Manager Julia Rueb: [Julia.Rueb@wimaxforum.org](mailto:Julia.Rueb@wimaxforum.org).

## WIMAX CARIBBEAN 2012 – SESSION HIGHLIGHTS

*WiMAX Caribbean 2012 took place on July 26th, 2012 in Miami, Florida. Below is a summary of the discussions that took place. This summary is not exhaustive. Presentation slides are available upon request of WiMAX Forum marketing staff.*

### Operator Roundtable: Operational Considerations for WiMAX Networks

WiMAX Caribbean 2012 opened with a panel discussion among WiMAX operators moderated by WiMAX Forum President Declan Byrne. The panel included Roy Richardson of Caribserve; Paul Choiseul, CTO of IBW; and Gert Post, Managing Director of Scarlet B.V. Each operator spent some time detailing its operations, and answered questions regarding challenges that they face. A major topic of discussion was the impact of LTE. The operators agree that eventual migration to LTE may be necessary, but not for technical reasons. The operators agreed that with investors, LTE is the “magic word,” and it continues to be tough to gain capital to invest in WiMAX technology. All of the operators are quite happy with their WiMAX deployments and the technology, and expressed concern about the future technology roadmap. Another topic of discussion was potential business models in the Caribbean. All three operators agreed that pre-paid plans are the optimum model. Scarlet went further and suggested a strategy of reduced CPE offerings from smaller operators. Scarlet specifically does not offer USB dongles. Mr. Post stated known problems with OS and driver compatibility as real stumbling blocks to small-scale dongle deployment. Instead Scarlet only offers MiFi devices, stating that WiFi is the best way to connect customer end-points. Scarlet sells the MiFi devices outright – and the mix of device sales and pre-paid model reduces churn and makes costs manageable. Another major topic of discussion was roaming. Each operator agreed that roaming is easy along a single frequency, and IBW has purchased multi-frequency devices to allow roaming between the five countries in which it operates.

## Planning Considerations for WiMAX Network Development and Growth

This panel was moderated by Raul Rigo, CALA Regional Director for the WiMAX Forum, and included the following speakers: Francisco Caicedo, Sales Director Latin America, Airspan Networks Inc.; Shoichi Hanatani, Senior Director, Hitachi; Kevin Gutzmer, VP of Product Realization, NewNet Communications Technologies; and Rick Lyons, International Sales Director, PureWave Networks. This panel began by focusing on one of the questions addressed earlier by operators: with LTE becoming a reality, what are the challenges of migration from a planning standpoint? In response, the vendor unanimously agreed that the main challenges were logistical rather than technical. Mr. Gutzmer from NewNet pointed out that his company is looking to overlay networks as a migration strategy, as ripping out networks already at capacity would be disastrous for subscribers. Mr. Lyons from Purewave seconded this, saying that he could not imagine ripping out a WiMAX network, and instead urging operators to add LTE over the top. The vendors agreed that the advent of dual-mode WiMAX/LTE devices is essential for coexistence and migration. Airspan also made the point that many of the problems are of a regulatory nature, either dealing with the issuance of new spectrum, or in some cases technology-specific licensing agreements that must be dealt with. Another question posed to the vendors focused on which vertical applications they saw as the most important. The vendors agreed that WiMAX performs well in smart grid and smart field networks, CCTV/video surveillance, in-car radios (for government and public safety), eHealth, education, high speed rail and other transportation systems. Airspan noted that vertical markets are a major growth area for WiMAX, with more than 40% of the company's revenues coming from vertical deployments. Purewave noted in particular that network owners deploying CCTV tend to be shocked at the capacity needed for an effective deployment, and WiMAX tends to work very well for them. When asked whether vertical markets were a good opportunity for Caribbean WiMAX operators to partner to make use of their networks, the vendors urged caution. The vendors agreed that in general network partnerships could be profitable, particularly public-private partnerships with government entities; but, NewNet cautioned that oftentimes government and utilities look for 10-20 year partnerships, and network operators need to think very carefully about whether or not they want this type of long-term commitment.

### WiMAX in Vertical Markets

This presentation by WiMAX Forum President Declan Byrne covered the opportunity for WiMAX in industrial and vertical markets, as well as current efforts by the WiMAX Forum to support these markets. Mr. Byrne discussed the creation and recent activities of the Smart Grid Working Group and Aviation Working Group, both of which are working on requirements documents to support standardization within their respective ecosystems. WiMAX is currently being used by Utilities around the world for Smart Grid deployments, in the US and Europe for upgrading terrestrial communications networks, and in a range of government and transportation networks across the world.

### Case Study – WiMAX Service for the Heineken Regatta

This presentation by Roy Richardson, COO at CaribServe, focused on the operator's use of WiMAX to support the Heineken Regatta, the largest Regatta in the Caribbean. The Regatta attracts around 2,500 sailors and approximately 1,000 support people to the island. Over 100 boats are rented locally and about 50 boats cross the Atlantic from Europe to participate, and the event draws interest and web traffic from over 160 individual countries. Mr. Richardson began by outlining the challenges faced in connecting the Regatta: the regatta ends at a different location each day; the entire Regatta management system used by the Regatta Committee sits in the Cloud, the Regatta management system is used both on-shore and aboard the Committee boats out at sea; the event is also known and followed globally, so real-time processing and

availability of results was a key requirement; and CaribServe had to meet not only the data demands and capacity requirements of the organization, but also of participants and the public at large. According to Mr. Richardson and testimonials from the Regatta staff, CaribServe's WiMAX network enabled the following: remote connectivity to the Internet for the Regatta Committee, both on land and out at sea; real-time scoring and dissemination of results via the Cloud, website and to the digital billboards and screens directly from the scoring boats at sea; enhanced end-user WIFI experience by means of the Free WiMAX HotZone service that also offloaded data traffic from the mobile (2G/3G) networks; high-speed and reliable mobile communications for all members of the Press by means of a WiMAX HotSpot service; enhanced communications for a select group of sailors who carried out testing of the WiMAX MiFi & USB mobile devices; live streaming of the Regatta concerts and crowds via a WiMAX CPE connected to an IP Camera installed on the stage; and real-time VoIP connectivity from remote locations on land and at sea to the Regatta Committee's mobile office. For more information on this event, please find the following case study video on YouTube: [WiMAX 802.16e and the St. Maarten Heineken Regatta](#)

### Case Study – IBW's WiMAX Operations

This presentation by Paul Choiseul, CTO of IBW discussed the operator's network deployments across four different countries. IBW currently operates WiMAX networks in Guatemala (3.5 GHz), El Salvador (2.5 GHz), Nicaragua (2.5 GHz), and Costa Rica (2.3 GHz). IBW decided to use WiMAX technology for a number of factors including network security and protocol stability. In particular, its Outdoor CPEs maintained, and in many cases exceeded, 99.999% stability for one its anchor customers, the largest regional bank in Central America. Since it began offering service to this customer, the bank has tripled its investment with IBW due to the strength of its WiMAX offering. In addition to its SMB and enterprise services, IBW serves residential customers under the Japi brand, and recently acquired multi-frequency CPEs from Greenpacket to allow roaming between the countries in which it has operations. IBW is currently experience accelerating growth in El Salvador, Costa Rica and Nicaragua; and is beginning to see growth in Guatemala where operations launched in April, 2012.

### Wireless Broadband Network Design Best Practices (Myths and Truths)

This presentation given by Leonhard Korowajczuk, CEO/CTO of CelPlan Technologies Inc closed the day. During this technical presentation, Mr. Korowajczuk explained in an honest manner many of the myths propagated to operators and the press within the BWA industry. This presentation spawned intense discussion between the audience and presenter, and was very well-received overall. Mr. Korowajczuk's presentation listed and focused heavily on the following myths: an operator can use the same channel in all your cells (reuse of 1); an operator can have a throughput of 200 Mbps over a 10 MHz channel; 4X4 MIMO can improve your SNR by 20 dB (even with an USB); MIMO B (Spatial Multiplexing) will double your throughput; "your network was designed for a standard 3GPP environment, ETU30 (Extended Typical Urban model) and we provide indoor coverage"; Link Budget: "our equipment can provide indoor coverage at 10 km from the Base Station."

Overall WiMAX Caribbean 2012 was a highly interactive and satisfying event for attendees. For more information on this event or future events, please contact Alessandra Rocha at [Alessandra.Rocha@WiMAXForum.org](mailto:Alessandra.Rocha@WiMAXForum.org)

## MEMBERSHIP SERVICES UPDATE

There are currently 144 members of the WiMAX Forum in good standing.

We are committed to delivering the value necessary for our members to get the most of their association with the WiMAX Forum and we are always happy to engage with individual members to discuss how WiMAX Forum can better serve its membership. If you have questions regarding your membership, please contact Mike Wolleben [mike.wolleben@wimaxforum.org](mailto:mike.wolleben@wimaxforum.org) - 512-470-9045.

The WiMAX Forum is the best place for our members to access, leverage and influence the growth and development of the WiMAX industry. So be a leader in WiMAX and step up to get involved today!

## WORKING GROUP UPDATE

The WiMAX Forum **Working Groups** are the key to the development of WiMAX technology. Working Groups are chartered by the WiMAX Forum to bring together content experts from member companies to contribute to and harmonize documents and specifications and perform other tasks that the WiMAX Forum has determined to be necessary or useful.

The WiMAX Forum organizes its technical activities through a number of Working Groups coordinated by a Technical Steering Committee. The WiMAX Forum Working Groups include:

- **SPWG** - Service Provider Working Group
- **SGWG** - Smart Grid Working Group
- **AWG** - Aviation Working Group
- **NWG** - Network Working Group
- **TWG** - Technical Working Group
- **CWG** - Certification Working Group
- **GRWG** - Global Roaming Working Group
- **RWG** - Regulatory Working Group

If you are not a member of a Working Group yet, you can request to join on the group's **Home Page**. Or if you want to take an active role in one or more of the Working Groups, you can use the group chair link on that same page to contact the chairman of the group and to see how you can help. Working Group Meetings are held in-person ("face-to-face") or by teleconference. Dates and venues shall be determined taking into account Working Group needs and requests. To encourage cross Working Group discussions in support of the overall program goals, the WiMAX Forum co-locates the face-to-face meetings of multiple Working Groups at our Member Conferences.

The WiMAX Forum is seeking leadership for the Aviation and Network Working Groups. If you or your company is interested in nominating someone for a working group leadership role, please contact Rich Hawkins at [Rich.Hawkins@WiMAXForum.org](mailto:Rich.Hawkins@WiMAXForum.org)

**Your participation is important to the WiMAX community!**



## WiMAX FORUM NEWS

WiMAX Forum, in partnership with Multiview, has launched its weekly WiMAX Newsbrief. This weekly summary of news from around the WiMAX ecosystem is intended as a benefit to our members. If you do not yet receive the Newsbrief and wish to do so, please sign up here:

<http://www.wimaxforum.org/wimax-forum-weekly-newsbriefs>

Below is a summary of the month of August:

- **WiMAX Forum announces 1st WiGRID™ PlugFest Event**
- **Going forward with WiMAX**
- **Boost adds Samsung Galaxy S II 4G, Galaxy Rush to lineup**
- **CEO's open letter to Infrac Systems shareholders**
- **Mahindra Satyam and Tech Mahindra together launch Oracle Communications Solution Engineering Center**
- **Simplixity signs Clearwire WiMAX MVNO deal with Karma**
- **Freshtel offers free unlimited Internet to new subscribers**
- **Mobile workstation to help produce a clearer vision of disaster sites**
- **Identifying the source angle of a WiMAX signal**
- **Lublin, Poland, WiMAX project due for completion by year's end**
- **Libya to license private Internet services firms**
- **KDDI, TeraRecon launch Japan's 1st cloud-based, real-time medical 3-D imaging solutions**
- **Injector-diplexers combine Wi-Fi and WiMAX**
- **Jordan's Internet users number stands at 3.5 million**
- **Indoor and external semi-directional panel antenna advice to installing panel antennas for Internet access**
- **Indian government assures good telecom connectivity nationwide**
- **HTC J coming to Taiwan, maybe other markets as well**
- **AirNet selects Alvarion to offer Wi-Fi at Albena Resort area in Bulgaria**
- **WiMAX Europe 2012**
- **What is the WiMAX360 mobba Marketplace?**
- **Broadband, smart grid test co-ops**
- **Elk to launch public Internet network**
- **Experimenters now using GENI WiMAX infrastructure**
- **NEC and P1 to collaborate in Malaysia**
- **NewNet Communication Technologies enters new markets with the integration of the Tekelec Mobile Messaging Business Unit**
- **Qubee introduces hassle-free environment-friendly billing**
- **Redline Communications reports solid Q2 2012 financial results**
- **Tecnotree receives purchase order in Africa**
- **Telecom equipment vendors: Is the telecom dream run over?**
- **TeliaSonera makes investments worth \$205 million in Kazakhstan**
- **Tower Bersama leases 200 towers for WiMAX operators**

- YTL confident it will reach postpaid customer target
- Altitude Infrastructure extends partnership with Proxim Wireless for high capacity wireless deployments
- WiMAX Europe Announcement
- L-com's new dual polarity dish antennas provide 4.9-5.8 GHz broadband signal in both vertical and horizontal polarizations
- Softbank nearing 30 million customers
- Survey says
- Voip-Pal.Com Inc. completes successful beta test of 'Soft Switch' VoIP network framework
- Record number of regional ICT ministers attend Miami conference
- Globe notes high demand for mobile broadband offers
- MTN boosts broadband Internet in Nigerian cities with HyNet
- Mobile phone penetration rises 62 percent in 15 years
- IQT to help bring transceiver chips to government market
- Got bandwidth?
- NewNet talks about new initiatives at WiMAX Caribbean Forum
- Telecom Argentina H1 sales up 21 percent
- UQ expands WiMAX coverage to Japan's Yokohama subway
- Nepal Telecom unveils \$742.6 million budget for fiscal year 2012-2013
- Intelligence that counts — don't miss these case studies on Smart Grid Communications
- WiMAX Radio equipment for Belize
- Freshtel continues network expansion in Ukraine
- Google posts updated 4.1.1 binaries for the Nexus S 4G
- Batelco Group announces half-year profits of \$91.8 million
- Israeli video technology enables Olympic broadcasters
- Nepal Telecom business plan targets 1.55 million new subscribers
- WiMAX Operators Summit
- 4G International Forum 2012 in Taiwan
- KITS Telecom deploys Eion WiMAX network in Iraq
- Batelco makes 91.8 million profit in H1
- BSNL to launch tablet PCs in Karimnagar
- PTA: Cellphone subscribers to cross 160 million by 2020
- Eion Wireless to develop wireless IPTV in Brazil
- Every cloud has a silver lining
- Freshtel expands network, offers new business tariffs
- TarinNet completes 1st phase of WiMAX deployment
- Ukrainian regulator issues three operators with WiMAX spectrum
- Top 5 prepaid smartphones in the US
- SMC's Wi-tribe unit wins bid to keep telecoms frequencies
- Ukraine issues 3 new WiMAX licences
- Brickcom announces integration of its IP cameras with Wavestore's VMS