WiMAX FORUM® NEWSLETTER

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INTRODUCTION

Dear WiMAX Community,

As mentioned in our **June Newsletter**, the WiMAX Forum was active in its opposition of the recent FCC proposal that is under consideration, with regards to the **Further Notice of Proposed Rulemaking (FNPRM)**. We filed a petition against this ruling, and will make sure to keep our partners and members informed. Replies to the FNPRM are to be published by August 1st.

This month, the WiMAX Forum shared a new **White Paper** that was authored by **Monica Paolini** of **Senza Fili Consulting**. This timely document forecasts a swift adoption of AeroMACS as a next generation standard in air traffic management, predicting that it will eventually become "ubiquitous" within airport infrastructure.

As an outcome of sharing the White Paper with aviation media, the WiMAX Forum has been invited to co-author an article on the topic of the **AeroMACS** standard and its future for a leading academic journal, *The Journal of Airport Management*.

The Forum is hosting and/or participating in a number of important events in the coming months:

• The WiMAX Forum will be holding its **Member Conference** on August 18-21, 2014 at the Fairmont Hotel in San Francisco. Distinct from the WiMAX Forum Summits with panel discussions and presentations, the Member Conference allows all Working Groups and participants the opportunity to meet face-to-face and have joint sessions in order to collaborate on technical activities.

• On September 8, 2014, the WiMAX Forum and UTC Telecom America Latina will participate in a meeting with **Anatel** (the Brazilian FCC) – in order to request and recommend a dedicated spectrum for the Brazilian utilities.

• The WiMAX Forum plans to participate in the **Smart Grid Latin America Forum** on September 9-11, 2014 at the Club Transatlantico in Sao Paulo, Brazil.

• The WiMAX Forum will participate in the **Wireless China Summit** on September 17-18, 2014 at Crowne Plaza, Beijing Sun Palace. The Forum will lead panel discussions during **"Track 1: AeroMACS"** on September 17, 2014 from 1:45 pm – 6:00 pm. This specific track is designed to give attendees a better understanding of AeroMACS, a new technology standard in the aviation industry – with an opportunity to explore synergies between China's aviation community and key stakeholders from the WiMAX/commercial telecom industries.

• The WiMAX Forum will participate in the **59th ATCA Annual Conference and Exposition** on September 28 - October 2, 2014 at the National Harbor, Maryland. WiMAX Forum President, **Declan Byrne** will be presenting on September 30th at 11:00 am, at the ATCA Annual Theatre.

• The WiMAX Forum will participate in the **AEEC Systems Architecture and Interfaces (SAI)** meeting being held on October 20-21, 2014, at the **EUROCONTROL Headquarters** in Brussels, Belgium.

• The WiMAX Forum will host the 2nd Annual **WiMAX Aviation 2014 - Sendai** on November 11-12, 2014 in Sendai, Japan. We will hold an AeroMACS field-trial tour of the ENRI lab in Sendai Airport on the afternoon of November 12th. The meeting will also be collocated with ICAO WG-S Meeting on November 13-14. Details of this **event** are still being finalized, and will be made available shortly.

If you have any questions regarding any of this or our organization's activities, please reach out to us. We at the WiMAX Forum wish you all a wonderful remainder of July and a prosperous August.

Best Regards,

The WiMAX Forum

EVENTS

In July, the WiMAX Forum continues to stay busy planning and attending events. The WiMAX Forum team is looking forward to seeing you at our events this year. The following is the summary of upcoming events:

Super Wi-Fi Summit will be held in **August 12-14, 2014 at The Rio Hotel in Las Vegas, Nevada**. The FCC has opened up a sizable new block of unlicensed spectrum, between the 50MHz and 700MHz bands. The capability to use the new "white-space spectrum" sometimes referred to as Super Wi-Fi, for wireless broadband access creates a wealth of new opportunities for consumers, enterprises, service providers and device manufacturers. Attendees at the Super Wi-Fi Summit will gain an understanding of this technology's true potential of as well as the business and technical issues surrounding it.

Hear how the second phase of Wi-Fi will lead to viral and explosive growth and opportunity. Get insight into alternative spectrum solutions that will provide cost effective ways to deliver mobile broadband services. Hear about investment opportunities, solutions to support IoT and M2M requirements, case studies, regulatory update, and more.

For more information on this event and to receive a **20%** discount on registration, please visit: **Super Wi-Fi Summit 2014**.

The WiMAX Forum is delighted to announce the next **WiMAX Forum Member Conference**, which will take place on August 18-21, 2014 in beautiful San Francisco, USA. Working Group meetings will begin on Monday, August 18, and continue through Thursday, August 21, concluding with the Technical Plenary will take place on Thursday afternoon, August 21. The WiMAX Forum Board meetings will be held Wednesday, August 20 and Thursday, August 21, 2014. And on Tuesday, August 19, the WiMAX Forum will host a cocktail reception for networking purposes.

Please contact Sophia Chang, WiMAX Forum Project Manager, at **Sophia.Chang@WiMAXForum.org** if you wish to attend this event or request a visa invitation letter.

We look forward to welcoming you in San Francisco!

For billions of people around the globe, wireless is the preferred form for communicating. Meanwhile more and more of data traffic are now traversing across wireless networks while connectivity between objects and devices are increasingly becoming unwired. This wireless trend is not only growing but is the way forward.

The upcoming **Wireless China Industry Summit will take place on September 17-18, 2014 at the Crowne Plaza Beijing Sun Palace in Beijing, P.R.C.** It is the leading event of its kind addressing the full scope of next generation wireless technologies and their innovative applications. An educational program provides insightful knowledge about a broad range of critical issues and exciting new developments. Whether your interest is from the perspective of a wireless endorser, application developer, systems integrator, reseller, a manufacturer, or service provider, the surest way to get yourself and your organization fully ready for a dynamic wireless world is by attending.

WiMAX Forum will be at Wireless China Industry Summit!

The WiMAX Forum will lead panels during **Track 1: AeroMACS** on September 17, 2014 from 1:20pm to 5:20pm. The speakers are the following:

- **Declan Byrne**, President, WiMAX Forum
- Wan Meizhen, Director, Office of Radio Regulatory Committee, **Civil Aviation Administration of China**
- Xijing Tan, R&D Center Director, **Aviation Data Communication Corporation (ADCC)**
- Henry Huang, Sr. Director, Head, Emerging Markets Division, **Gemtek Technology Co. Ltd**
- Brian Crowe, Vice Chair, WiMAX Forum Aviation Working Group - Sr. Advisory Engineer, **Hitachi**
- Aloke Roy, Chair, WiMAX Forum Aviation Working Group - Sr. Program Manager, **Honeywell**
- Giulio Vivaldi, Aeronautical Radio Communications System Engineer, **SELEX ES**
- Paolo Troyer, CTO, **SELEX ES**
- Yi Bin Xu, Section Manager, **Siemens**

For more information and registration, please visit: **Wireless China Industry Summit 2014**.

Broadband World Forum, on **21-23 October 2014, Amsterdam, The Netherlands** is one of the world's largest telecoms, media & technology events with over 7,800 senior executives from across the globe converging on Amsterdam every year to identify the Next Big Thing.

With awe-inspiring attendees including the who's who of global C-suite fixed, wireless and cable operators, OTTs and genuine market disruptors, national and international governments and the world's leading solution providers, BBWF is an entire ecosystem event that excites and identifies how the latest technologies and trends from across our industry will impact the future of global communications.

For more information about this event and to receive a **15%** discount on registration, please visit: **Broadband World Forum 2014**.

WiMAX Oil & Gas 2014 will be a pre-conference session at OilComm on Wednesday, November 5th, 2014 at the Hilton Americas 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.

All operators and vendors are invited to this event to meet, network and discuss ideas with the goal of fostering a prosperous environment and future for the WiMAX Oil & Gas ecosystem. The event will highlight the opportunities, challenges and strategies involved in operating a profitable WiMAX network.

This event is constructed specifically to allow the participants to network, share key lessons and work together for the benefit of the industry. Our goal is for attendees to gain concrete knowledge that will help them build profitable WiMAX businesses.

WiMAX Oil & Gas 2014 will be an interactive working event. Participation in this event is free to the attendees of the OilComm Full Conference Program. WiMAX Oil & Gas 2014 is open to all participants of the WiMAX ecosystem, and membership in the WiMAX Forum is not a requirement to attend.

For more information and to receive a **10%** discount on registration, please visit: **WiMAX Oil & Gas 2014**.

For questions about this event, please contact: Alessandra Rocha at **Alessandra.Rocha@WiMAXForum.org**.

WiMAX Africa 2014 will be a pre-conference session at Informa Telecom & Media's AfricaCom on Monday, November 10, 2014 at the DoubleTree Cape Town – Upper Eastside in Cape Town, South Africa. This event will focus specifically on supporting the African operator community in developing and managing profitable growth of WiMAX network deployments.

WiMAX Africa 2014 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 lucrative WiMAX network in Africa.

The African WiMAX community currently faces a host of challenges in procuring devices, securing funding for network development, and optimizing the migration or co-existence of WiMAX and TD-LTE networks. This event is constructed to allow these operators to network, share key lessons, and work together for the benefit of the industry. Our goal is for attending operators to gain concrete knowledge that will help them build profitable WiMAX businesses.

WiMAX Africa 2014 will be an interactive working event. **There is no registration fee**, and this event is free. The event is open to all participants of the WiMAX ecosystem, and membership in the WiMAX

Forum is not a requirement to attend.

For more information and registration please visit: **WiMAX Africa 2014**.

If you have questions regarding this event and visa invitation letter, please contact Sophia Chang, WiMAX Forum Project Manager, at **Sophia.Chang@WiMAXForum.org**.

Sponsorship Opportunities:

Increase your presence at the WiMAX Forum events through a sponsorship! Our high-profile events offer sponsors excellent visibility before, during and after the event.

Sponsorship opportunities include:

- Media Sponsorship *(WiMAX Forum Membership **NOT** Required)*
- Gold Sponsorship *(WiMAX Forum Membership **NOT** Required)*
- Platinum Sponsorship *(WiMAX Forum Members Only)*
- Diamond Sponsorship *(WiMAX Forum Members Only)*

For more information about which event sponsorship may best suit your needs, please contact Alessandra Rocha at **Alessandra.Rocha@WiMAXForum.org**.

The WiMAX Forum plans to host and participate in other events over the course of 2014. As details concerning these events are finalized, we will be certain to keep you informed.

For more information about our events, please visit: **WiMAX Forum Events**

MEMBERSHIP SERVICES

The WiMAX Forum is 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 the WiMAX Forum can better serve its membership. **WiMAX Forum Membership** provides a wide range of benefits and services that allows WiMAX Service providers to grow their networks and the vendor community to sell more equipment and services.

The WiMAX Forum would like to extend a special welcome to the new members from 2014:

- **Ecil Energia**
- **Exelis**
- **Green Packet Berhad**
- **Intellecom LLC**
- **Kyocera Communication Systems Co.**
- **Magnaquest Technologies Ltd**
- **Metropolitan Washington Airport Authority**

- **Seowon Intech**

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!

If you have questions regarding the WiMAX Forum Membership, please contact Kailey Phillips at **Kailey.Phillips@wimaxforum.org**; +1-703-407-1643.

INDUSTRY SPOTLIGHT

● **Enabling the Next Generation in Air Traffic Management with AeroMACS**
By Monica Paolini, Senza Fili Consulting

In a new white paper, leading analyst firm **Senza Fili Consulting** presents an overview and in-depth analysis of the aviation industry's global adoption of next generation technologies for fixed and mobile ground communications. This document examines how a WiMAX-based platform known as AeroMACS — the Aeronautical Mobile Airport Communication System — is bringing multiple advantages to the aviation industry in terms of connectivity, cost-effectiveness, and efficiency, making a strong business case for a standard platform for ground communications improvement.

The white paper provides an in-depth analysis of how the aviation industry is moving beyond its existing legacy systems to implement a new framework for air traffic management (ATM). The timely document takes a comprehensive look at the phases of AeroMACS' development – from today's initial trials in the U.S. and Europe, to expected global commercial deployments through 2022 and beyond.

According to Senza Fili, the AeroMACS interface will eventually become "ubiquitous" within airport infrastructure, and for aircraft on the ground. Operating in a licensed aviation exclusive 5 GHz band, AeroMACS supports both mobile and fixed connectivity, while benefitting from the proven technology of the WiMAX IEEE 802.16 standard. WiMAX combines a competitive vendor ecosystem with state-of-the-art performance and rich interoperability that can support deployments across a wide range of aviation applications.

If you are interested in reading the full white paper, please **click here**.

● **Assessing Spectrum Requirements for Smart Grid Networks**
By Doug Gray, WiMAX Forum

Wireless technology offers the best alternative for the deployment of a Smart Grid (SG) network. It is the most cost-effective, is quick to deploy, and is compatible with existing utility infrastructure and right-of-ways. Although wireless has the potential to meet all of the requirements for a secure Smart Grid network, the lack of suitable spectrum specifically allocated for utilities has been, and continues

to be, an obstacle for SG deployments.

Obviously utilities have the ability to use unlicensed spectrum in a variety of bands and they have access to existing public networks. Although these options can indeed play a role in some SG network segments or selected geographic regions they are not suitable for a complete end-to-end network solution. Unlicensed spectrum is prone to congestion and interference and capacity may not be available when crucially needed by utilities. With the infiltration of smart phones and growing demand for new wireless applications, public networks are barely able to keep up with the current demand from existing customers and therefore, unlikely to have excess capacity to offer utilities for SG.

In times when utilities especially need adequate data communications, whether for disaster recovery or periods of peak electric demand, public networks or unlicensed spectrum are options that cannot be guaranteed to be available. The potential benefits of a US nationwide Smart Grid network are significant but, unfortunately, without utility access to suitable spectrum, these benefits may never be fully realized.

If you are interested in reading the full white paper, please **click here**.

WORKING GROUPS

The Working Groups are preparing for face-to-face sessions at the **WiMAX Forum Member Conference in San Francisco, USA**.The TWG, SPWG, AWG, and SEWG will collaborate on specifications, requirements, white papers, and more to advance the **Aviation**, **WiGRID** and other Smart Energy, and **WiMAX Advanced** Initiatives. If you are interested in attending this conference, please contact **Sophia.Chang@WiMAXForum.org**.

SEWG members received tremendous results from the comments that they submitted in response to the recent FCC NPRM related spectrum in the 3.5 GHz band. By August 15, they will have submitted their reply comments to the FCC. SEWG members also continued to develop drafts of requirements for WiGRID 2 to incorporate features developed in IEEE Std 802.16n and IEEE Std 802.16p, such as enhanced security and authentication as well as network reliability improvements.

The **Aviation** initiative in AWG continues to gain momentum. AWG has developed AeroMACS X.509 Certificates & Certificate Policy Use Cases, to support the development of AeroMACS x.509 Certificate Profiles and Policies. As a common Security standard is becoming increasingly important to the Aviation Community, the AWG has formed a PKI Task Group to lead the development of these PKI Profiles.

The WiMAX Forum administered questionnaires on WiMAX and TD-LTE co-existence and/or transition to their Operators, Device-Chipset Vendors, and Infrastructure Vendors in the Spring. Using the information gathered from the questionnaires, the SPWG is drafting a white paper to define common scenarios and provide recommendations for WiMAX and TD-LTE co-existence and/or transition to

further the **WiMAX Advanced** initiative.

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. Principal members of the forum have the opportunity to participate as officers of working groups when there are vacancies and to vote on working group output.

The WiMAX Forum organizes its technical activities through a number of Working Groups that produce technical requirements, develop technical specifications, or advise the forum. These groups are coordinated by the Technical Steering Committee. The WiMAX Forum Working Groups include:

- **SPWG** - Service Provider Working Group - *Requirements*
- **SEWG** - Smart Energy Working Group - *Requirements & WiGRID Initiative*
- **AWG** - Aviation Working Group - *Procedures, Profiles & AeroMACS Initiative*
- **TWG** - Technical Working Group - *Technical*
    - **CTG** - Certification Task Group - *Technical*
    - **NTG** - Network Task Group - *Technical*
  GRWG - Global Roaming Working Group - *Technical*
  RWG - Regulatory Working Group - *Advisory*

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.

To view the most up-to-date information on our Working Groups, please visit **www.wimaxforum.org/about/working-groups**.

Your participation is important to the WiMAX community!

You can learn more about the Working Group activities by visiting the member's area in Kavi and viewing the outcome of recent Working Group sessions or joining groups to receive emails related to that group's activities. Working Group activity is integral to the success of the Forum.

If you or your company is interested in participation in our Working Groups or a leadership role, please contact the TSC Chair **Rich Hawkins** at **Rich.Hawkins@WiMAXForum.org**

WiMAX FORUM NEWS

The WiMAX Forum weekly Newsbrief contains the summary of news from around the WiMAX ecosystem and is intended as a benefit to our community. If you do not yet receive the Newsbrief and wish to do so, please sign up here: **WiMAX Newsbrief**.

Below is a summary for the month of July:

- **Status of AeroMACS Trial Evolution in China**
- **Minocqua moves forward with broadband proposal**
- **Wireless China Industry Summit 2014**
- **More than 23 million mobile and fixed broadband subscriptions in KSA**
- **Siren Telephone [Rural Telecommunications]**
- **CelPlan ONLINE Course: 4G Network Design & Optimization - EMEA / APAC Regions**
- **GrameenPhone nears 50m mobile users**
- **WiMAX Oil & Gas 2014**
- **OFDM Baseband Processor by Noesis Technologies**
- **A Multiband Printed Log-Periodic Dipole Array for Wireless Communications**
- **Get Your 20% Discount to Attend Super Wi-Fi and Shared Spectrum Summit in Vegas**
- **Iran shows progress in 2014 with fibre network deployment**
- **Bahamian telco poised for expansion pending takeover approval**
- **Webinar - The New Reality: LTE Solutions for Fixed Applications**
- **Ollo gets full freedom to use 800 MHz spectrum**
- **New White Paper from Analyst Firm, Senza Fili, Forecasts Swift Adoption of AeroMACS as Next Generation Standard in Air Traffic Management**
- **bnetTV Speaking with Declan Byrne of WiMAX Forum at the 2014 IoT conference held in Palo Alto**
- **AT&T, Google and others pick apart FCC's 3.5 GHz spectrum-sharing scheme**
- **Rural Broadband Internet Service Growing in Wisconsin**
- **BSNL to Open Call Centre at Technopark**
- **Recorded Webinar: How to Take into Account Customer Experience when Designing a Wireless Network**
- **Enforta upgrades video-surveillance system for police**
- **Telecentras switches to euro pricing**
- **Plusnet wins best consumer broadband award**
- **New Principal Consultant, Former KDDI Executive, Hideo Okinaka, Brings Over 37 Years of Wireless Operator Expertise and Standards Strategy to Wireless 20/20**
- **RigNet Rotates Key Line Executives**
- **3.5 GHz: Debate continues on spectrum sharing, band plan and unlicensed use**
- **AeroMACS @ Wireless China Industry Summit 2014**
- **Naval Forces Japan helps lift geo restrictions for on-base internet**
- **Enforta Starts Services in Crimea**
- **NT to distribute 46 percent cash dividend**
- **GL Announces Enhanced Voice and Data Testing Solutions**
- **Isles Internet service provider pushes to expand market**
- **DoT prepares schedule for cellular spectrum auctions**
- **Qubee Pakistan launches bill payment service with Upaisa**

- **BSNL Kerala to implement IT initiatives to improve service**
- **AT&T, WiMAX Forum cite separate problems with FCC's 3.5 GHz plan**
- **Broadband World Forum 2014 - Early Registration Ends July 11**
- **Enforta starts telephony services in Surgut**
- **Montenegro grows to 93,290 broadband internet users in May**
- **Vectra submits offer for one-third of Netia**
- **Registration for OilComm 2014 is now open**
- **Council Grove company brings 4G to Alaska**
- **Brazil reaches 23.11 mln fixed broadband subs by end-May**
- **Cheap SMA Coaxial Connectors Released By China Electrical Accessory Supplier LenoRF**
- **70W High Power 3G 4G WiMAX Signal Jammer Is Here**
- **(Better) Power to the People**
- **Umniah launches new e-payment service for subscribers**
- **WiMAX Forum and Utility Industry Caution FCC Against Incorporating 3.65 GHz Spectrum into New Citizens Broadband Radio Service Plan**
- **Tantalus and Itron both win in Florida AMI/meter rollout**
- **North Carolina Co-op Uses WiMAX to Boost System, Help Member**
- **Brazil reduces import taxes on ICT goods**
- **AzQtel widens WiMAX footprint**
- **Honeywell : Patent Issued for Method and Apparatus for Intermittent Location Reporting**
- **Elitecore Enables Menatelecom to offer the first Nationwide LTE Service in the kingdom of Bahrain**
- **Cameroon telecoms market: Viettel to roll out first 3G**
- **Half of Iranians use Internet**
- **Enforta launches video call centre help**
- **4G within the tenure of this govt: Joy**
- **Air monitor station up for rehab**
- **June 2014 WiMAX Forum Monthly Newsletter**