**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | 802.15 LPWA IG Minutes for November 2016 Mtg. | |
| Date Submitted | [25 November, 2016] | |
| Source | [Joerg Robert] [Friedrich-Alexander University Erlangen-Nuernberg] | Voice: [+49 9131 8525373] Fax: [ ] E-mail: [joerg.robert@fau.de] |
| Re: | [LPWA IG meeting minutes.] | |
| Abstract | LPWA IG minutes from the November San Antonio Mtg. | |
| Purpose | [LPWA IG meeting minutes.] | |
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**Minutes for IEEE 802.15 LPWA IG**

**San Antonio Meeting**

**7-10 November, 2016**

**Chair - Joerg Robert**

**Acting Secretary – Clint Powell**

**Monday PM1 (November 7)**

Chair called the meeting to order at 1:33pm.

**Session Objectives**

* Open
* SA
* Approval of Agenda
* Approval of Warsaw Mins
* Proposed Time Line
* Discussion of Finalized IG Objectives doc.
* Presentation of Use Cases
* Recess

**Review and Approval of Agenda (doc# 15-16-0752-01)**

No objection to approving.

**Approval of Prior Mtg. Minutes (doc# 15-16-0534-00)**

No objection to approving.

**Time line - Final Goal**

* July 2017 - final discussion on IG report

**Review and discussion of IG Objectives (see doc. #15-16-0729**

Includes:

* Objectives
* White Paper Contents Overview
* Use Cases

**Literature List can be found at:**

15-16-0749-xx

**Presentation of Use Cases (see doc. 15-16-0771-00)**

* Reviewed proposed motivation
* Reviewed Use Cases - which included
* Smart City
* Reviewed Proposed Orthogonal Parameters

**Chair Presented Spreadsheet on a long list of use cases (see doc. # 15-16-0770-00)**

Chair asked that group review the above docs. and be prepared to provide any feedback by and/or on the Dec. teleconference.

* Group discussion ensued on the finer details of ETSI and FCC regulatory

**Presentation of LPWA - Regulatory Issues (see doc. # 15-16-0775-00)**

* Chair pointed out the low power restrictions in en\_300-220-02, and the related duty cycles limitations/requirements.
* Group discussion ensued on the finer details of ETSI and FCC regulatory
* Chair solicited help for inputs w.r.t. regional regulatory and LP operation
* Chair will further cover expanding on ESTI regs. w.r.t. LP
* Ben Rolfe will further cover expanding on FCC regs. w.r.t. LP
* Shumada-san recommended waiting a bit to expanding on Japanese regs. w.r.t. LP
  + He will get back to the group on a more definitive time line

**AOB**

Given that agenda items for both PM1 and PM2 were covered during PM1, the Chair proposed skipping the MON PM2 session – no objections were heard.

**Recess**

Chair recessed the IG @ 3:12pm, until WED AM1.

**Minutes for IEEE 802.15 LPWA IG**

**San Antonio Meeting**

**7-10 November, 2016**

**Chair - Joerg Robert**

**Wednesday AM1 (November 9)**

Chair called the meeting to order at 8:03am.

**Presentation of “Future Directions of 5G IoT and Coexistence with 802.15 LPWA” (see doc. # 15-16-xxxx-00, not uploaded yet)**

* Brian Kelley pointed out that the key enablers for 5G are massive MIMO and more spectrum (especially microwave links)
* Juan Carlos Zuniga commented that the concept of Cloud RAN (Radio Access Network) will allow for the parallel use of multiple radio access technologies
* The group agreed that 5G will allow for highly heterogeneous networks

**Discussion on use-cases (see doc. 15-16-0771-00)**

* Latency requirements should be extended, additional group to support <0.25s
* The column “power supply” will be renamed to “typical power supply”
* All use-cases require encryption of the data, some use-cases may require additional features such as authentication, etc., security may have to be applied on several layers
* A column on the network topology will be added to the use-case list

**Discussion on IG Report**

* The group agreed that the IG report should contain a recommendation on potential future work on LPWA in IEEE 802.15

**AOB**

The IG LPWA is now responsible for the IETF liaison wrt. LPWAN.

**Adjorn**

Chair adjourned the IG @ 10:00am.