**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title |  |
| Date Submitted | [13 July 2017] |
| Source | [][][Chicago, IL] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Plenary Meeting in Berlin, Germany] |
| Abstract | [IEEE 802.15 Working Group Minutes] |
| Purpose | [Official minutes of the Working Group Session] |
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**107th IEEE 802.15 WSN SESSION**

**ESTREL BERLIN**

**BERLIN, GERMANY**

**July 10-15, 2017**

**Monday, 10 July 2017**

**10:35 AM** The chair, Bob Heile, called the meeting to order (15-17-0326-05)

The chairasked for new attendees to raise their hands; there were none.

Announcements:

* Social is a boat ride on the canals
* Don’t forget to register for Waikoloa, Hawaii

Chair informed the group of, and displayed the IEEE-SA patent policy presentation slides 0-5 (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked the participants who wished to declare a Letter of Assurance (LoA) or to identify patent claim(s)/patent application claim(s) and/or the holder of patent claim(s)/patent application claim(s) that the participant believes may be essential for any of the ongoing activities within the 802.15 WG. There were no attendant responses to this call.

Chair displayed and read the standard IEEE Anti-Trust statement.

Ben Rolfe moved to *approve the agenda (document 15-17-0326-05-0000)* with Jay Holcomb seconding the motion. Following no objection, the agenda was approved.

Clint Powell moved *to approve the previous meeting minutes (document 15-17-0303-00-0000)* and Ben Rolfe seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

B Rolfe presented the Treasurer Report (15-17-0360-00). Total Liabilities and Equity is presently $526,387.39 to cover a worst case cancellation.

Future Sessions

* September 10-15,  2017, Hilton Waikoloa Village, Kona, HI, USA, *802 Wireless Interim Session.*\*
* November 5-10, 2017, Caribe Hotel and Convention Center, Orlando, FL, USA, *802 Plenary Session.*
* January 14-19, 2018 Hotel Irvine, Irvine, California USA, *802 Wireless Interim Session.*\*
* March 4-9, 2018, Hyatt Regency O’Hare, Rosemont, Illinois, USA, *802 Plenary Session.*
* May 6-11, 2018, Warsaw Marriott, Warsaw Poland (TBC) *802 Wireless Interim Session.*
* July 8-13, 2018, Manchester Grand Hyatt, San Diego, CA, USA, *802 Plenary Session.*
* September 9-14,  2018, Hilton Waikoloa Village, Kona, HI, USA, *802 Wireless Interim Session.*\*
* November 11-16, 2018, Marriott Marquis Bangkok (TBC), *802 Plenary Session*

B Heile presented a report on the EC meeting held just before this meeting (15-17-0381-00).

**Status Reports**

802.15

Task Group 3d –100Gbps THz PHY

1. Putting package together for RevCom

Task Group 3f

1. Resolving editorial comments from WG ballot

Task Group 4s – Spectrum Resource Utilization (SRU)

* 1. Work on letter ballot comment resolution
	2. Looking forward to sponsor ballot

Task Group 7m – Optical Wireless Communications (OWC)

* + 1. Working on resolving 450 comments from WG ballot

Task Group 8 – Peer Aware Communications

* + 1. Working on resolving 780 comments from Sponsor Ballot

SG 11 (LiFi)

1. Working to get PAR and CSD approved

Task Group 12 –Upper Layer Interface (ULI)

* + 1. Finished Architecture
		2. Detailing mandatory functions of 15.12

Interest Group Dependability

1. Trying to get automotive participants

Interest Group LPWA

1. Liaison with ETSI

Interest Group VAT

1. Looking at optical communications

Standing Committees (SCm, SC IETF, SCwng)

* 1. Maintenance contributions for standards and operation manual
	2. IETF99 agenda items for 6tisch, 6lo, core, roll, and lp-wan, Ace, t2trg
	3. WNG- One presentation – IGdep

**11:21 PM** The chair recessed the meeting

**Wednesday, 12 July 2017**

**10:30** Bob Heile, WG chair called the meeting to order.

WG Chair made announcements concerning social, logistics, and registration for Hawaii.

**10:35** 802.18 Tag liaison by J Holcomb

* Reply comments to a Canadian rules change
* Reply comments to an Australian Change

**10:39** TG3d closing report (15-17-0392-01) by Thomas Kürner

* 2nd recirc had 2 comments and 100% approval

Motion: *that 802.15 WG has reviewed and approved the CSD [15-15-0683-01-003d-tg3d-csd-change-1] and requests unconditional approval from the EC to submit P802.15.3d-D04 to RevCom.*

Moved by Thomas Kürner

Seconded by Clint Powell

Vote was taken with the results of 28/0/0, motion carries

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor Balloting of the P802.15.3d\_D04 or current version with the following membership: Thomas Kürner (Chair), Iwao Hosako, Monique Brown and Ken Hiraga. The 802.15.3d BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector as per the LMSC 802 WG P&P*

Moved by Thomas Kürner

Seconded by Clint Powell

Upon neither discussion nor objection, the motion carries

**10:43** closing report on THz (15-17-0391-00) by T Kürner

**10:45** TG 3f closing report (15-17-0330-02) by B Rolfe

*Motion: 802.15 has reviewed and approves the CSD doc #15-17-0049-01-0000 and requests conditional approval from the EC to submit*P802.15.3f\_D01 or latest version to Sponsor Ballot.Moved by: Benjamin Rolfe
Second by: Rick AlfvinUpon no discussion the vote was taken with the results of 25/0/1, the motion carries.

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor Balloting of the P802.15.3f\_D01 with the following membership: Benjamin Rolfe (Chair), James Gilb, Rick Alfvin, Clint Powell. The 802.15.3f BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector as per the LMSC 802 WG P&P.*Moved by: Benjamin Rolfe
Second by: James Gilb
Upon neither discussion nor objection the motion carries with unanimous consent

**10:54** TG4s by H. Yokota

* Working on comment resolution

**10:56** TG7m by Junhyeong Kim

* resolving comments

**10:57** IG VAT by Junhyeong Kim

**10:57** TG8 by Huan-Bang Li

* Finished Sponsor Ballot comment resolution

**10:58** TG13 by Volker Jungnickel

* OWC Tutorial on Monday
* Ad hoc July 17 – 19 at Fraunhofer HHI

**11:05** IG Dependability closing report (15-17-0415-01) by R Kohno

* having 2 presentations at WNG

**11:08** IG LPWA by Jörg Robert

* hoping to finalize technical discussions this week

**11:15** TG 15.12 ULI by P Kinney

* Working on the methods of sending frames through ULI and multiplexing mechanisms

**11:00** SC reports by P Kinney

* SC Maintenance; agreed upon requesting a corrigendum to switch MAC address transmission order back to 802.15.4-2011 and discussed the changes anticipated for the next 802.15.4 revision.
* SC IETF: reviewed 6tisch, 6lo, core, roll, Ace, T2TRG, and lp-wan
* SC WNG: two presentations: Two presentations:
	+ Demand of Highly Reliable Wireless Network and Future Vision for Car Manufacturing Line in Factory (15-17-0398-00) by Hiroshi Kobayashi of Nissan Motors, and
	+ On the way to Industry 4.0 (15-16-0399-00) by Johannes Diem of Mahle International GmbH
* P Kinney reviewed the comment resolutions to LB139 contained in document 15-17-0418-00

**11:12** WG chair recessed the meeting until Thursday evening.

**Thursday, 13 July 2017**

**18:30** WG chair called the meeting to order

**18:33** TG4s closing report by Hidetoshi Yokota (15-17-0416-00)

*Move that 802.15 WG start a WG recirculation requesting approval of CA document 15-16-0536-01-004s-coexistence-assurance-document-for-802-15-4s.doc and document P802-15-4s\_D06 and to forward document P802-15-4s\_D06, to Sponsor Ballot.*

Moved By: Hidetoshi Yokota

Seconded By: Clint Powell

Upon no discussion the vote was taken with the results of 20/0/0, the motion carries

*Motion for WG Approval to Sponsor Ballot.*

*802.15 has reviewed and approves the CSD 15-14-0175-05 and requests conditional approval from the EC to submit P802.15.4s\_D06 (or latest version) to Sponsor Ballot.*

Moved By: Hidetoshi Yokota

Seconded By: Clint Powell

Upon no discussion the vote was taken with the results of 22/0/0, the motion carries

*Motion for TG Approval to Form a TG4s BRC.*

*TG4s requests that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the P802.15.4s-D06 with the following membership: Shoichi Kitazawa, Hidetoshi Yokota, Chris Calvert, Benjamin A. Rolfe and James Glib. The 802.15 TG4s BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector as per the LMSC 802 WG P&P.*

Moved by: Hidetoshi Yokota

Seconded by: Clint Powell

Upon neither discussion nor objection the motion carries with unanimous consent.

**18:40** TG7m closing report by Yeong Min Jang (15-17-0436-01)

**18:42** IG VAT by Yeong Min Jang (15-17-0431-00)

**18:46** TG8 closing report by Huan-Bang Li (15-17-0442-00)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor Ballot recirculation of the P802.15.8-D5.0 with the following membership: Myung Lee (chair), Huan-bang Li, Marco Hernandez, Billy Verso, and Seong-Soon Joo. The 802.15.8 BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector as per the LMSC 802 WG P&P*

Moved By: Huan-Bang Li

Seconded By: Clint Powell

Upon neither discussion nor objection, the motion carries with unanimous consent.

**18:48** TG13 by Volker Jungnickel (15-17-0434-00)

**18:54** IG LPWA by Jörg Robert (15-17-0441-00)

**18:57** TG 12 (ULI) closing report by P Kinney (15-17-0388-01)

**19:29** Standing Committee closing report by P Kinney (15-17-0409-00)

15.4-2015Cor1 to start WG LB Motion

*Move that 802.15 WG start a WG Letter Ballot requesting approval of document d2P802.15.4-2015-Corri-1-2017 and to forward document d2P802.15.4-2015-Corri-1-2017 to Sponsor Ballot*

Moved by: P Kinney

Seconded by: Kunal Shah

Upon neither discussion nor objection, the motion carries with unanimous consent.

15.4-2015 Cor1 BRC Motion

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the d2P802.15.4-2015-Corri-1-2017 or current version with the following membership: Pat Kinney (Chair), Clint Powell, Ben Rolfe, and Kunal Shah. The 802.15.4 BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences announced to the reflector as per the LMSC 802 WG P&P.*

Moved by: P Kinney

Seconded by: Matt Gillmore

Upon neither discussion nor objection, the motion carries with unanimous consent.

*Motion for WG Approval to Sponsor Ballot.*

*802.15 requests conditional approval from the EC to submit d2P802.15.4-2015-Corri-1-2017 (or latest version) to Sponsor Ballot.*

Moved By: Pat Kinney

Seconded by Clint Powell

Upon no discussion the vote was taken with the results of 20/0/0, the motion carries

**19:13** 802.11 liaison report by A Petrick (15-17-0440-00)

**19:25** 802.18 liaison report by J Holcomb (15-17-0413-00)

**19:30** 802.24 liaison by T Godfrey (24-17-0021-00)

**19:34** Motion *to adjourn* was made by Clint Powell. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 68

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| **Last Name** | **First Name** | **Affiliation** |

|  |  |  |
| --- | --- | --- |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Alfvin | Richard | Linespeed Events LLC |
| Alvarado | Natasha |  |
| Aoyama | Hideki | Panasonic Corporation |
| Baykas | Tuncer | Istanbul Medipol University |
| Brand | Hermann | IEEE STAFF |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Canchi | Radhakrishna | Kyocera International Inc. |
| Cha | Jaesang | SNUT |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Choi | Jinyeong | SNUT |
| Choi | Jinyong | LG ELECTRONICS |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Fan | Xiaojing | Fujitsu Research & Development Center |
| Gilb | James | Gilb Consulting, Inc. |
| Gillmore | Matthew | Itron Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Haasz | Jodi | IEEE Standards Association (IEEE-SA) |
| Hach | Rainer | Nanotron Technologies GmbH |
| Heile | Robert | Wi-SUN Alliance |
| Hernandez | Marco | National Institute of Information and Communications Technology (NICT) |
| Hett | Christopher | Landis Gyr Group Worldwide |
| Hirota | Tomoyuki | Panasonic Corporation |
| Holcomb | Jay | Itron Inc. |
| Hosako | Iwao | National Institute of Information and Communications Technology (NICT) |
| Jang | Yeong Min | Kookmin University |
| Joo | Seong-Soon | Electronics and Telecommunications Research Institute (ETRI) |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Kalke | Jerome | CBS Corp |
| Kang | Tae-Gyu | Electronics and Telecommunications Research Institute (ETRI) |
| Kinney | Patrick | Kinney Consulting LLC |
| Kohno | Ryuji | YNU/CWC-Nippon |
| Kojima | Fumihide | National Institute of Information and Communications Technology (NICT) |
| Kuerner | Thomas | TU Braunschweig |
| Le | Namtuan | Kookmin University |
| Lee | Jae Seung | Electronics and Telecommunications Research Institute (ETRI) |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Lim | Sang-Kyu | Electronics and Telecommunications Research Institute (ETRI) |
| Maierbacher | Gerhard |  |
| Mano | Hiroshi | Koden Techno Info K.K. |
| Mariappan | Vinayagam | SNUT |
| Meyer | Dirk |  |
| Nguyen | Trang | Kookmin University |
| Perkins | Charles | Futurewei Technologies |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| Rakanovic | Demir | u-blox |
| Rey | Sebastian | Technische Universitat Braunschweig |
| Riou | Emmanuel | Gridbee Communications |
| Robert | Joerg | University of Erlangen-Nuremberg |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Sakata | Ren | TOSHIBA Corporation |
| Salazar Cardozo | Ruben E | Landis Gyr Group Worldwide |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Sayrafian | Kamran | National Institute of Standards and Technology (NIST) |
| Serafimovski | Nikola | pureLiFi |
| Shah | Kunal | Silver Spring Networks Inc. |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Silver Spring Networks Inc. |
| Thubert | Pascal | Cisco Systems, Inc. |
| Tyagi | Vipin |  |
| Vangelista | Lorenzo | University of Padova |
| Verso | Billy | DecaWave |
| Wang | Hao | Fujitsu Research & Development Center |
| Yokota | Hidetoshi | Landis Gyr Group Worldwide |
| Zuniga | Juan Carlos | SIGFOX |
| Vangelista | Lorenzo | University of Padova |
| Verso | Billy | DecaWave |