**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 Mar 2015] | |
| 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 Waikoloa, Hawaii] | |
| Abstract | [IEEE 802.15 Working Group Minutes] | |
| Purpose | [Official minutes of the Working Group Session] | |
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**IEEE 802.15 Plenary Meeting – Session #97**

**Hilton Waikoloa, Hawaii**

**July 13-17, 2015**

**Monday, 13 July 2015**

**10:21 AM** The chair, Bob Heile, called the meeting to order (15-15-0101-01)

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

Announcements:

* Bangkok early bird hotel rates end 27 July 2015, please make your reservations

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.

C Powell moved to *approve the agenda (document IEEE 15-15-0453-03-0000)* with E Callaway seconding the motion. Following no objection the agenda was approved.

R Alfvin moved *to approve the previous meeting minutes (document 15-15-0367-00-0000)* and E Callaway seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

Future Sessions

* September 13-18, 2015, Centara Bangkok, Bangkok, Thailand, *802 Wireless Interim Session.\**
* November 8-13, 2015, Hyatt Regency Dallas, Dallas, TX, USA, *802 Plenary Session.*
* January 17-22, 2016, Hyatt Regency Atlanta, Atlanta, GA, USA, *802 Wireless Interim Session.*\* **(100th Session of 802.15)**
* March 13-18, 2016, Sands Venetian Hotel Macau, PRC (TBC), 802 Plenary Session.
* May 15-20, 2016, Hilton Waikoloa Village, Kona, HI, USA, 802 Wireless Interim Session.\*
* July 24-29, 2016, Grand Hyatt Manchester, San Diego, CA, USA, 802 Plenary Session

The Treasurer Report will be given at the midweek plenary

**Status Reports**

802.15

TG3d by T Kürner

* Review and Discuss Contributions

IG THz by T Kürner

* Starts again,

TG3e by A Estrada

* Preliminary proposals

TG4n CMB by B Heile

* Going to RevCom

TG4q ULP by Chiu Ngo

* + Looking at some editorial comments

TG4r ranging by B Heile

* + Future direction of task group

TG4s SRU by Shoichi Kitazawa

* Reviewing issues

TG7.1 LED by Yeong Min Jang

* Hearing presentations

TG8 PAC by M Lee

* Hearing presentations

TG9 KMP by R Moskowitz

* Submission to sponsor

TG10 L2R by Clint Powell

* Comment resolution for LB

IG HRSC by Junhyeong Kim

* Issue a CFP

SC MAG by P Kinney

* focus of meetings is comment resolution of 802.15.4 SB

**10:38 PM** The chair recessed the meeting

**Wednesday, 11 Mar 2015**

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

WG Chair made announcements concerning 802.11 celebration, social, and logistics.

**10:33** TG3d report by Thomas Kürner

* Completing application requirements document

*The 802.15 WG approves the responses to the comments (contained in DCN: 15-15-0574-00-0000) received on the 15.3 Revision PAR and CSD and on the 15.9 Change PAR and 5C.*

Moved by C Powell, seconded by Thomas Kürner

The vote was taken with the results of 39/0/0, motion carries

*The 802.15 WG approves the responses to the comments (contained in DCN: 15-15-0574-00-0000) received on the 15.9 Change PAR and 5C*

Moved by C Powell, seconded by Thomas Kürner

The vote was taken with the results of 36/0/0, motion carries

**10:39** TG 3e by Andrew Estrada

* 5 different preliminary presentations being heard

**10:40:** TG4n by L Li

* preparing package for submission to EC and RevCom

**10:41** TG4q by Chiu Ngo

* All comments have been resolved

**10:42** TG4r by B Rolfe

* One meeting and adjourned

**10:42** TG4s by S Kitazawa

* Discussions on IEs and request from IETF members for a TX power control capability

**10:43** TG7.1 LED by Yeong Min Jang

* Working on TRD

**10:44** TG8 (PAC) by Myung Lee

* Working on remaining MAC issues

**10:43** TG9 (KMP) by Robert Moskowitz

* Working on motions to go to SB

**10:44** TG10 (L2R) by Clint Powell

* Finishing comment resolutions to LB

**10:48** IG Guide closing report by James Gilb (15-15-0546-02)

* Draft table of documents 15-421

**10:46** IG 6T by P Kinney

* discussed TSCH issues such as bit ordering and IE use

**10:47** IG LLC by P Kinney

* Presentation of 15-15-0521-00 by P Kinney presenting a proposal for formation of a SG to develop PAR and CSD for an 802.15.4 LLC
* Straw Poll: Those supporting the formation of a SG to develop the PAR and CSD for an LLC for IEEE 802.15.4 which may include the use of other IEEE 802.15 standards as appropriate: 9/0/4

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group in 802.15 to develop the PAR and CSD documents for “802.15.4 LLC” and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission. 37/0/1*

**10:54** SC maintenance report by P Kinney

* Resolving SB comments, 67 accept, 71 revise, 12 reject (160) with 119 TBD

**10:57** WG chair recessed the meeting until Thursday evening.

**Thursday, 16 July 2015**

**16:00** WG chair called the meeting to order

**16:02** IG THz closing report by T Kürner (15-15-0567-00)

**16:04** TG3d **(**100G) closing report by T Kürner (15-15-0566-00)

* Motion:  *802.15 welcomes the liaison statement send by ITU-R WP1 to IEEE 802 (doc. IEEE 802.15-15-0517-000-0thz) on the draft new report ITU-R SM [THZ\_TREND]. 802.15.3d and 802.15 IG THz will jointly draft a response to the liaison statement for submission to ITU-R via 802.18 meeting the deadline of June 2016.*

*Moved by Thomas Seconded by Clint Powell*

*Upon neither discussion nor objection the motion carries*

**16:14** TG3e closing report by A Estrada (15-15-589-00)

**16:16** TG4n (CMB) closing report by L Li (15-15-593-00)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor balloting of the 802.15.4n draft standard with the following membership: Arthur Astrin (chair), Liang Li, Shinsuke Hara, WeiXia Zou and Kenichi Mori. The 802.15.4n BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.4n draft on behalf of the 802.15 WG.*

*Moved by: Liang Li Seconded by:　C Powell*

*Upon neither discussion nor objection the motion carries*

**16:20** TG4q **(**ULP) by Chiu Ngo (15-15-0587-00)

*Move that 802.15 WG to approve the formation of a Ballot Resolution Committee (BRC) for the sponsor balloting of the 802.15.4q draft standard with the following membership: Chiu Ngo (Chair), Allan Zhu (Huawei), Hendricus De Ruijter (Silicon Labs), Youngsoo Kim (Samsung), Guido Dolmans (IMEC), Kiran Bynam (Samsung), Chandrashekhar Thejaswi PS (Samsung). The 802.15.4q BRC is authorized to approve sponsor ballot comment resolutions and the start of recirculation ballots of the 802.15.4q draft on behalf of the 802.15 WG. Comment resolution between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 30 days in advance.*

Moved by: Chiu Ngo Seconded by: Clint Powell

Upon neither discussion nor objection the motion carries with unanimous consent

**16:23** TG4r closing report by B Rolfe (15-15-0591-00)

**16:28** TG4s closing report by S Kitazawa (15-15-0590-00)

**16:30** TG7r1 by Yeong Min Jang (15-15-0597-00)

**16:33** TG8 (PAC) closing report by Huan-Bang Li (15-15-0598-00)

**16:35** TG9 (KMP) by Peter Yee (15-15-0237-01)

*Move that 802.15 WG reaffirm the constitution of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.9 draft recommended practice with the following membership: Robert Moskowitz, Tero Kivinen, Don Sturek, Peter Yee, Subir Das, Brian Weis, Gary Stuebing. The 802.15.9 BRC is authorized to approve comment resolutions and to approve the start of recirculation ballots of the 802.15.9 draft on behalf of the 802.15 WG. Comment resolution between sessions will be conducted via reflector email and via teleconferences announced to the reflector at least 30 days in advance.*

*Moved by P Yee, seconded by C Powell*

Upon neither discussion nor objection the motion carries with unanimous consent

*Motion: request that the modified IEEE 802.15 TG9 PAR contained in document 15-15-0464-00-0009-par-changes.pdf and 5C contained in document 15-15-0406-00-0009-5C-changes.doc be approved for submission to the EC to forward the PAR and 5C to NesCom and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission.*

*Moved by P Yee and seconded by C Powell*

*The vote was taken with the results of 40/0/0, motion carries*

*Motion: request that the IEEE 802.15 TG9 PAR extension contained in document 15-15-0553-00-0009-par-extension-request.pdf be approved for submission to the EC to forward the PAR to NesCom and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission.*

*Moved by P Yee and seconded by C Powell*

*The vote was taken with the results of 40/0/0, motion carries*

*Motion: 802.15 requests unconditional approval from the EC to submit 802.15.9 revision draft Recommended PracticeD4.0\_P802-15-9\_Draft\_Standard.pdf to Sponsor Ballot and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission*

*Moved by P Yee and seconded by C Powell*

*The vote was taken with the results of 40/0/0, motion carries*

*Motion: Working Group has reviewed the 5C for 802.15.9 and affirms that the 5C as modified to remove 15.7 has been met.*

*Moved by P Yee and seconded by C Powell*

*The vote was taken with the results of 39/0/1, motion carries*

**16:44** TG10 (L2R) closing report by Clint Powell (15-15-0538-02)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the TG10 draft recommended practice with the following membership: Clint Powell, Verotiana Rabarijaona, Fumihide Kojima, Noriyuki Sato, Kiyoshi Fukui, Soo-Young Chang, Jaehwan Kim, SangSung Choi, Charlie Perkins. The TG10 BRC is authorized to approve comment resolutions and to approve the start of balloting the TG10 draft on behalf of the 802.15 WG. Comment resolution on recirculation ballots between sessions will be conducted via reflector email and via teleconferences as announced to the reflector at least 30 days in advance.*

*Moved by C Powell, seconded by P Yee*

Upon neither discussion nor objection the motion carries with unanimous consent

**16:45** HRRC closing report by Junhyeong Kim (15-15-0588-00)

**16:50** SCm closing report by Pat Kinney (15-14-0532-00)

**WG Motion:** *Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the 802.15.4 Revision draft standard with the following membership:* Pat Kinney, James Gilb, Jeritt Kent, Benjamin Rolfe, Clint Powell, Billy Verso, Kunal Shah, Phil Beecher, Fumihide Kojima, Tero Kivinen, and Tim Harrington. *The 802.15.4 Revision BRC is authorized to approve comment resolutions and to approve the start of balloting the 802.15.4 Revision 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 in advance.*

Moved by Pat Kinney, seconded by B Rolfe

Upon neither discussion nor objection the motion carries with unanimous consent

**17:10** IG 6T closing report by P Kinney (15-15-0552-00)

**17:15** IG LLC closing report by P Kinney (15-15-0599-00)

Motion: *that the 802.15 Working Group seeks approval from the 802 EC to form a study group in 802.15 to develop the PAR and 5c documents for 802.15.4 LLC and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission.*

Moved by P Kinney, seconded by C Powell

The vote was taken with the results of 35/0/1, the motion carries

**17:20 802.15.3 Revision**

Motion: *request that the PAR and CSD contained in documents 15-15-324-00 and 15-15-332-00, respectively, be approved by the 802.15 WG and that the 802 EC be requested to forward the revised PAR to NesCom. The 802.15 working group chair and technical editor are authorized to make additional modifications to the PAR and CSD as needed to reflect EC discussion at its closing meeting*

*Moved by P Kinney and seconded by T Kürner*

*The vote was taken with the results of 36/0/0, the motion carries*

**17:22** Motion *to affirm the selection of Andrew Estrada as chair of TG3e*

Moved by B Rolfe, seconded by C Powell

Upon neither discussion nor objection the motion carries

**17:23** 802.18 liaison report by J Notor (15-15-0579-01)

**17:26** 802.24 liaison report by T Godfrey

* vice chair election: B Rolfe is the new vice chair
* student paper contest process completed

**17:30**  **WG Motion**: to adjourn was made by Clint Powell and seconded by Rick Alfvin. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 88

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

|  |  |  |
| --- | --- | --- |
| Achir | Mounir | Canon Research Centre France |
| Akiyama | Keiji | Sony Corporation |
| Alfvin | Richard | Verilan |
| Aoyama | Hideki | Panasonic Corporation |
| Beecher | Philip | Wi-SUN Alliance |
| Berens | Friedbert | FBConsulting Sarl |
| Bynam | Kiran | SAMSUNG |
| Callaway | Edgar | ARM, Ltd. |
| Cha | Jaesang | SNUT |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chasko | Stephen | Landis Gyr Group Worldwide |
| Chung | Hee-Sang | Electronics and Telecommunications Research Institute (ETRI) |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | National Institute of Information and Communications Technology (NICT) |
| Estrada | Andrew | Sony Corporation |
| Evans | David | Philips Electronics |
| Fricke | Alexander | Technische Universitat Braunschweig |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gilb | James | Pulse-LINK Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Haapola | Jussi | Centre for Wireless Communications / University of Oulu |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harrington | Timothy | Zebra Technologies |
| Heile | Robert | Wi-SUN Alliance |
| Hernandez | Marco | National Institute of Information and Communications Technology (NICT) |
| Hiraga | Ken | NTT |
| Holcomb | Jay | Itron Inc. |
| Horisaki | Koji | TOSHIBA Corporation |
| Hui | Bing | Electronics and Telecommunications Research Institute (ETRI) |
| Ifthekhar | Shareef | Kookmin University |
| Jang | Yeong Min | Kookmin University |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Kang | Hyunduk | Electronics and Telecommunications Research Institute (ETRI) |
| Kanno | Atsushi | National Institute of Information and Communications Technology (NICT) |
| Kato | Toyoyuki | Anritsu Engineering |
| Kent | Jeritt | Analog Devices Inc. |
| Kim | Junhyeong | Electronics and Telecommunications Research Institute (ETRI) |
| Kim | Young-Hoon | Electronics and Telecommunications Research Institute (ETRI) |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | ATR Wave Engineering Laboratories |
| Kivinen | Tero | INSIDE Secure |
| Kojima | Fumihide | National Institute of Information and Communications Technology (NICT) |
| Kondou | Keitarou | Sony Corporation of America |
| Kuerner | Thomas | TU Braunschweig |
| Kumar | Amarjeet | Procubed Inc. |
| Kwak | Byung-Jae | Electronics and Telecommunications Research Institute (ETRI) |
| lee | hoosung | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Moon-Sik | Electronics and Telecommunications Research Institute (ETRI) |
| Lee | Myung | CUNY - City University of NY |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Liang | Vinno Technologies Inc. |
| Li | Qing | InterDigital, Inc. |
| Lynch | Michael | Nortel Networks |
| maekawa | itaru | Japan Radio Co., Ltd. |
| Moskowitz | Robert | HTT Consulting |
| Nekoui | Mohammad | Olympus Communication Technology of America, Inc. |
| Ngo | Chiu | SAMSUNG |
| Nguyen | Trang | Kookmin University |
| Noda | Makoto | Sony Corporation |
| Notor | John | Notor Research |
| Oshima | Mitsuaki | Panasonic Corporation |
| P S Bhat | Chandrashekhar | SAMSUNG |
| Perkins | Charles | Futurewei Technologies |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| Rabarijaona | Verotiana | National Institute of Information and Communications Technology (NICT) |
| Rakanovic | Demir | u-blox |
| Roberts | Richard | Intel Corporation |
| Rolfe | Benjamin | Blind Creek Associates |
| Russell | Paul | InterDigital, Inc. |
| Salazar Cardozo | Ruben E | Landis Gyr Group Worldwide |
| Sarikaya | Behcet | Huawei R&D USA |
| Sato | Noriyuki | Oki Electric Industry Co., Ltd. |
| Sekine | Norihiko | National Institute of Information and Communications Technology (NICT) |
| Serafimovski | Nikola | pureLiFi |
| Shimada | Shusaku | Schubiquist Technologies Guild |
| Shimizu | Masashi | Nippon Telegraph and Telephone Corporation (NTT) |
| Sihn | Gyung Chul | Electronics and Telecommunications Research Institute (ETRI) |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Silver Spring Networks Inc. |
| Togashi | Kou | TOSHIBA Corporation |
| toshimitsu | kiyoshi | TOSHIBA Corporation |
| Uysal | Murat | Ozyegin University |
| Verso | Billy | DecaWave |
| Villardi | Gabriel | National Institute of Information and Communications Technology (NICT) |
| Yaita | Makoto | Microsystem Integration Laboratories NTT |
| Yee | Peter | NSA/IAD |
| Yokota | Hidetoshi | Landis Gyr Group Worldwide |
| Zhu | Chunhui | Huawei Technologies Co. Ltd |