**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **<IEEE802.15 WG minutes>** |
| Date Submitted | [15 Nov 2018] |
| Source | [Pat Kinney][][Chicago, IL] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Plenary Meeting in Bangkok, Thailand] |
| Abstract | [IEEE 802.15 Working Group Minutes] |
| Purpose | [Official minutes of the Working Group Session] |
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**117th IEEE 802.15 WSN MEETING**

**MARRIOTT MARQUIS QUEEN'S PARK**

**BANGKOK, THAILAND**

**Nov 12-15, 2018**

**Monday, 12 Nov 2018**

**10:30 AM** The chair, Bob Heile, called the meeting to order (15-18-0494-03)

The chair showed a face-to-face presentation on this venue, i.e. “Top Ten Things to Know”.

The chairasked for new attendees to raise their hands; there were two.

Announcements:

* Don’t forget to register for St Louis, MO
* Register your passport information for the social this week

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 15-18-0494-04-0000)* with Rick Alfvin seconding the motion. Following no objection, the agenda was approved.

Ben Rolfe moved *to approve the previous meeting minutes (document 15-18-0429-00-0000)* and Tim Harrington seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

Chair presented the wireless network information.

Ben Rolfe (Blind Creek Associates) presented the WG11/WG15 treasurer’s report (15-18-0507-00).

B Heile verbally presented a report on the EC meeting held just before this meeting. Notable discussions on the following:

* IEEE Standard’s Staff were not present at this plenary
* Wireless Chair Committee report included the issue with coexistence assurance documents should they be improved (i.e. are they relevant)? S Shellhammer to lead this investigation.

Future Sessions

* January 13-18, 2019 Hilton Ballpark St Louis *802 Wireless Interim Session.\**
* March 10-15, 2019, Hyatt Regency Vancouver and Fairmont Hotel Vancouver, Vancouver, Canada, *802 Plenary Session.*
* May 12-17, 2019, Grand Hyatt Atlanta in Buckhead, Atlanta, Georgia, USA *802 Wireless Interim Session.\**
* July 14-19, 2019, Austria Congress Centre, Vienna, Austria, *802 Plenary Session.*
* September 15-20, 2019- Marriott Hanoi, Hanoi, Vietnam, *802 Wireless Interim Session.\**
* November 10-15, 2019, Hilton Waikoloa Village, Kona, HI, USA, *802 Plenary Session*
* January 12-17, 2020 Hotel Irvine, Irvine CA (TBC) *Wireless Interim Session.\**
* May 10-15, 2020 Warsaw Marriott (TBC) *Wireless Interim Session.\**
* Future venues 2020 Lisbon Marriott, Budapest Marriott, Vienna Hilton, Athens Hilton, Sorrento Hilton, JW Bucharest.

**Status Reports**

802.18 by Jay Holcomb (Itron)

* Guest presentation by Mr. Masanori Kondo, Deputy Secretary General of Asia-Pacific Telecommunity (APT)
	+ Presidential Memorandum on sustainable spectrum allocation
	+ NPRM on 6 GHz rule changes

802.15

Task Group 4md – Revision by G Stuebing (Cisco)

* Working on comment review
* 157 comments to be resolved

Task Group 4w – LPWA by J Robert (University of Erlangen-Nuremberg)

* Working on Coexistence document
* Working on drafting of the specification

Task Group 4x – FANE by M Gilmore (Itron)

* Only need to form a BRC

Task Group 4y – SECN by D Sturek (Itron)

* Sending editorial changes to TG4md

Task Group 4z – ELR by T Harrington (UWB Alliance)

* NPRM for 6 GHz
* Focusing on HRP since LRP is essentially resolved

Task Group 7m by R Heile (Wi-SUN)

* Done except for publication

IG VAT by Y Min Jang (Kookmin University)

* Looking to create a SG

Task Group 10a – RMA by R Heile (Wi-SUN)

* + - In Sponsor Ballot finishing Wednesday

Task Group 12 –Upper Layer Interface (ULI) by P Kinney (Kinney Consulting)

* + - Continuing work on preliminary draft

Task Group 13 –Multi Gigabit/sec OWC by V Jungnickel (Fraunhofer Heinrich Hertz Institute)

* + - Presentations on MAC
		- Working on draft

IG Dep by R Kohno (YNU/CWC-Nippon)

* Working on collaboration with ETSI M2M

IG THz by T Kürner (TU Braunschweig)

* Working on tutorial
* Hearing 3 presentations

Standing Committees (SCmaintenance, SC IETF, SCwng) by P Kinney (Kinney Consulting)

* + No maintenance requests for published standards but changes requested for operation manual
	+ IETF103 accomplishments for 6tisch, 6lo, core, roll, suit, and lp-wan
	+ WNG- three presentations

802.19 Coexistence Group by B Rolfe (BCA/MERL/UWB Alliance)

* Working on a PAR

**11:35 PM** The chair recessed the meeting

**Wednesday, 14 Nov 2018**

**10:32** Bob Heile, WG chair (Wi-SUN) called the meeting to order.

WG Chair made announcements concerning social, logistics, and affiliation requirements.

**10:35** 802.18 Tag liaison by J Holcomb (Itron)

* Meeting discussion on 6 GHz band issue with NPRM
* Thursday AM1 Guest presentation by Mr. Masanori Kondo, Deputy Secretary General of Asia-Pacific Telecommunity (APT)

**10:36** TG4md by G Steubing (Cisco)

* Comment resolution from 1st WG ballot, resolved 53 technical comments

**10:37** TG4w by J Robert (Friedrich-Alexander-Universität Erlangen)

* Continue drafting process

**10:38** TG4x by M Gillmore (Itron)

* Will create a BRC

**10:39** TG4y by D Sturek (Itron)

* Editorials have been moved to TG4md

**10:39** TG4z by T Harrington (UWB Alliance)

* Working on 802 response to NPRM
* Merging proposals, LRP PHY is basically done, HRP PHY is progressing

**10:42** IG VAT closing report by Yeong Min Jang (15-18-0581-00)

**10:45** TG10a by C Perkins (Futurewei)

* *Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the P802-15-10a\_D01 or latest draft with the following membership: Kiyoshi Fukui, Joerg Robert, Clint Powell, Tero Kivinen, and Charlie Perkins(as chair). The 802.15.10a 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: Charlie Perkins
	+ Seconded: Clint Chaplin
	+ Upon no discussion nor objection the motion carries

**11:49** TG13 by Volker Jungnickel (Fraunhofer Heinrich Hertz Institute)

* Consolidating the MAC

**11:50** IG Dependability by R Kohno (YNU/CWC-Nippon)

* Working on collaboration with ETSI M2M

IG THz by T Kürner (TU Braunschweig)

* finished tutorial
* Hearing 3 presentations

**11:21** SC reports by P Kinney (Kinney Consulting) (18-0343-01)

* SC IETF: reviewed status from constrained IETF WGs
* SC Maintenance: approved changes to OM including TAG, and OM change process
* SC WNG: 3 presentations to be heard

**11:23** TG 15.12 ULI by P Kinney (Kinney Consulting)

* Working on the profile configurations

**10:54** WG chair recessed the meeting until Thursday evening.

**Thursday, 15 Nov 2018**

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

**18:34** TG13 closing report by Volker Jungnickel (Fraunhofer Heinrich Hertz Institute) (15-17-0610-00)

**18:38** TG4w LPWA closing report by Jörg Robert (Friedrich-Alexander-Universität Erlangen) (15-18-0608-00)

**18:41** TG4md closing report by Gary Stuebing (Cisco Systems) (15-18-0515-03)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the P802.15.4-REVd-D01 with the following membership: Gary Stuebing (as Chair), Don Sturek, Kunal Shah, Ruben Salazar, Tero Kivinen, Phil Beecher and Shoichi Kitazawa. The 802.15.4md 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 Gary Stuebing, and Seconded by Rick Alfvin

Upon neither discussion nor objection the motion carries by unanimous consent

**18:44** TG4x FANE closing report by Matt Gillmore (Itron) (15-18-0603-00)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor Balloting of P802.15.4x-D1 with the following membership: Matt Gillmore (as Chair), Kunal Shah, Chris Calvert, Ruben Salazar, Phil Beecher, and Gary Stuebing. The 802.15.4x 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: Matt Gillmore
		- Seconded By: Rick Alfvin

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

**18:46** TG4y by D Sturek (Itron) (15-18-0594-01)

**18:55** TG4z **(**EIR) closing report by Tim Harrington(UWB Alliance) (15-18-0609-00)

**19:00** TG7m closing report by Bob Heile (15-18-0596-01)

*Move that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the Sponsor balloting of the P802.15.7m-D3a with the following membership: Yeong Min Jang, Rick Roberts, Jaesang Cha, Soo-Young Chang, Vinayagam Mariappan and Van Trang Nguyen. The 802.15 TG7m BRC is authorized to approve comment resolutions and to approve the start of sponsor 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: Rick Alfvin
		- Seconded By: Gary Stuebing

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

**19:02** TG10a closing report by C Perkins (Futurewei) (15-18-0582-01)

**19:05** IG Dependability closing report by B Rolfe (BCA) (15-18-0588-00)

Q: been going on since 2013, why not reboot via a WNG? R: 802.15 WG chair stated that the IG Dep chair has been requested to define the problem needing a solution.

**19:13** IG THz closing report by T Kürner (TU Braunschweig) (15-18-0587-00)

**19:17** TG 12 (ULI) closing report by P Kinney (Kinney Consulting) (15-18-0303-01)

**19:22** Standing Committees closing report by P Kinney (Kinney Consulting) (15-18-0292-01)

* + - * SCmaintenance requests that the WG approve the revised Operations Manual described in 15-10-0235-20
				+ Moved by Pat Kinney, SCmaintenance chair
				+ Upon neither discussion nor objection the motion carries with unanimous consent
			* SCwng requests that the WG approve forming a new IG for Profiles, i.e. IG Profile
				+ Moved by Pat Kinney, SCwng chair
				+ Upon neither discussion nor objection the motion carries with unanimous consent

**19:28** 802.11 liaison report by A Petrick (Jones-Petrick and Associates) (15-18-0591-01)

**19:32** 802.18 liaison report by J Holcomb (Itron) (15-18-0597-00)

**19:39** 802.19 liaison by Ben Rolfe (Blind Creek Associates**)** (19-18-0088-00)

**19:42** 802.24 liaison by T Godfrey (EPRI) (24-18-0027-00)

**AoB**

Straw Poll

* Those who find this an acceptable venue to return; 21 yes, 0 no, 0 don’t care
* How many attended the social:12, How many liked the social: 6

**19:39** Motion *to adjourn* was made by Gary Stuebing, seconded by Rick Alfvin. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Attendance = 81

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

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| --- | --- | --- |
| Ahlendorf | Hendrik | NXP Semiconductors |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Alfvin | Richard | Linespeed Events LLC |
| Asterjadhi | Alfred | Individual |
| Baer | Bernd | Marquardt |
| Barras | David | 3db Access AG |
| Baykas | Tuncer | Istanbul Medipol University |
| Beecher | Philip E | Wi-SUN Alliance |
| Berens | Friedbert | FBConsulting Sarl |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Castro | Carlos | Fraunhofer Heinrich Hertz Institute |
| Cepni | Gurkan | Apple, Inc. |
| Cha | Jaesang | SNUT |
| Chang | Matthew | Apple, Inc. |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chaplin | Clint | Samsung Research America |
| Darmon | Luc | DecaWave |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dewberry | Brandon | Apple, Inc. |
| Fagan | Anthony | DecaWave |
| Fischer | Michael | NXP Semiconductors |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Gillmore | Matthew | Itron Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| Hammerschmidt | Joachim | Apple, Inc. |
| Han | Chong | pureLiFi |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harrington | Timothy | Pro-ID |
| Hartman | Chris | Apple, Inc. |
| Heile | Robert | Wi-SUN Alliance |
| Holcomb | Jay | Itron Inc. |
| Hosako | Iwao | National Institute of Information and Communications Technology (NICT) |
| Ibrahim | Brima | NXP Semiconductors |
| Ikegami | Tetsushi | Meiji University |
| Jeong | Seongah | Samsung Electronics Co., Ltd. |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Kanno | Atsushi | National Institute of Information and Communications Technology (NICT) |
| Karthik | S. G. | SAMSUNG ELECTRONICS |
| Kasamatsu | Akifumi | National Institute of Information and Communications Technology (NICT) |
| Kawanishi | Tetsuya | NICT |
| Kettle | Paul | Decawave |
| Kim | Jeong Gon | Korea Polytechnic University (KPU) |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| Knobloch | Daniel | BMW Group |
| Kohno | Ryuji | YNU/CWC-Nippon |
| Kojima | Fumihide | National Institute of Information and Communications Technology (NICT) |
| Kuerner | Thomas | TU Braunschweig |
| Lee | Jack | Samsung Electronics Co., Ltd. |
| Lee | MINWOO | SNUT |
| Leong | Frank | NXP Semiconductors |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Zheda | Samsung Research America |
| Lorbach | Thomas | NXP Semiconductors |
| Maqbool | Masood | Apple, Inc. |
| Mariappan | VINAYAGAM | SNUT |
| MARIAPPAN | VINAYAGAM | SNUT |
| Marquez | Alejandro | Apple, Inc. |
| Naguib | Ayman | Apple, Inc. |
| Niewczas | Jaroslaw | DecaWave |
| Oguz | Onur | Valeo CDA |
| Perkins | Charles | Futurewei Technologies |
| Robert | Joerg | University of Erlangen-Nuremberg |
| Rolfe | Benjamin | Blind Creek Associates |
| Sahin | Onur | InterDigital, Inc. |
| Sakata | Ren | TOSHIBA Corporation |
| Salazar Cardozo | Ruben E | Landis Gyr Group Worldwide |
| Sauer | Peter | Microchip Technology, Inc. |
| Shah | Tushar | Apple, Inc. |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Itron Inc. |
| Sumi | Takenori | Mitsubishi Electric Corporation |
| Thubert | Pascal | Cisco Systems, Inc. |
| Verso | Billy | DecaWave |
| V Padaki | Aditya | Samsung Research America |
| Wechsler | Johannes | Fraunhofer Institute for Integrated Circuits IIS |
| Weis | Brian | Cisco Systems, Inc. |
| Yu | Raymond Zhan | HUAWEI |