**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 | [15 Jan 2018] |
| Source | [][][Chicago, IL] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Interim Meeting in Irvine, CA, USA] |
| Abstract | [IEEE 802.15 Working Group Minutes] |
| Purpose | [Official minutes of the Working Group Session] |
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 **IEEE 802.15 Interim Meeting – #107 Joint Opening Plenary**

**Hotel Irvine**

**Irvine, CA, USA**

**Jan 15 - 19, 2018**

**Monday, 15 Jan 2018**

**8:01** 802.11, 802.15, 802.18, 802.19, and 802.24 Chairs called the joint meeting to order. IEEE 802.15 attendance is included as Annex A.

General announcements:

* No photography, no audio recording
* Social – K1 Racing on Wednesday 18:00 – 21:30
* Don’t forget, book your room and register for March’s session

Straw Poll of new attendees: 5

**8:10**  IEEE patent policy

802.15 WG chair read the IEEE-SA instructions and displayed the four slides explaining patent policy and informed the attendees that additional information could be found on the PatCom web site: ([**http://standards.ieee.org/board/pat/pat-slideset.ppt**](http://standards.ieee.org/board/pat/pat-slideset.ppt)**)**.

802.15 WG chair read IEEE anti-trust policy.

**8:14** Financial report by J Rosdahl (Qualcomm) docs [11-18-0001-00](https://mentor.ieee.org/802.11/dcn/18/11-18-0001-00-0000-treasurer-report-january-2018-irvine.pptx),
[15-18-0015-00](https://mentor.ieee.org/802.15/dcn/18/15-18-0015-00-0000-treasurer-report-january-2018-irvine.pptx)

Total liabilities and equity $ 700,628.20

**8:20** Wireless and IMAT announcements by R Alfvin (Linespeed)

**8:21** WG15 Chair informed the group that the Wireless Chairs Standing Committee (WCSC) met yesterday, Sunday at 16:00 local time. Chair noted that this is an open meeting, all are encouraged to attend. Minutes are available at [ec-18-0009-00-WCSG](https://mentor.ieee.org/802-ec/dcn/18/ec-18-0009-00-WCSG-irvine-january-2018-minutes.docx)

**8:23** Review future sessions (document # [15-17-0676-01](https://mentor.ieee.org/802.15/dcn/17/15-17-0676-01-0000-802-15-sna-2018-graphic-agenda.xlsx))

* **March 4-9, 2018, Hyatt Regency O'Hare, Rosemont, IL, USA,** 802 Plenary Session
* **May 6-11, 2018, Warsaw Marriott,** 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, Bangkok Thailand,** 802 Plenary Session
* **January 13-18, 2019, TBD (Ottawa, St Louis, NOLA, maybe Montreal),** 802 Wireless Interim Session.\*
* **March 10-15, 2019, Hyatt Regency/Fairmont Hotel Vancouver, Vancouver, Canada,** 802 Plenary Session
* **May 12-17, 2019, Grand Hyatt Atlanta in Buckhead, Atlanta, Georgia, USA,** 802 Wireless Interim Session.\*

**8:27 Working Group Updates**

802.11 by Adrian Stephens (Intel), (document [11-17-1804-01](https://mentor.ieee.org/802.11/dcn/17/11-17-1804-01-0000-january-2018-wg-opening-report.pptx))

* Adrian presented the Emerging Technology Award to the 802.11 group for their effort on 802.11ad
* 275 voters

802.15 by B Heile (document [15-16-0857-04](https://mentor.ieee.org/802.15/dcn/16/15-16-0857-04-0000-802-15-atl-2017-graphic-agenda.xlsx))

* 65 voters
* TG4md: 15.4 revision
* TG 7m: Optical Wireless Communications
* TG12 Upper Layer Interface (ULI) for 802.15.4
* TG13 Multi-Gigabit OWC
* SG 15.4w Low Power Wide Area (LPWA)
* SG 15.4x FAN enhancements (FANE)
* SG 15.4y Security Next Generation (SECN)
* IG VAT (Vehicular Assistive Technology)
* IG ELR (enhanced low rate UWB RFID PHY)

802.16 by R Marks

* not meeting since 802EC voted to hibernate it

802.18 by J Holcomb

* 40 voting members
* Canadian consultation
* EMEA - EC mandate came out
* 3GPP - looking at 6 GHz spectrum
* OFCOM consultation
* IT 2020 – watching this effort

 802.19 S Shellhammer

* 35 voters
* Ongoing revision effort
* Presentation on coexistence in sub-GHz
* Official liaison on BT and 802.11 coexistence

802.24 Tim Godfrey

* 28 voting members
* editing white paper on utility applications

**AoB**

**8:42** Joint meeting adjourned

**Working group opening plenary (112th session of 802.15)**

**9:33** B Heile (WiSUN Alliance), WG chair called the 802.15 WG plenary to order ([15-17-0676-01](https://mentor.ieee.org/802.15/dcn/17/15-17-0676-01-0000-802-15-sna-2018-graphic-agenda.xlsx))

Announcements:

* Social is a private party at K1 Speedway
* Network and projectors are from LineSpeed
* March 2018 is an election month, 802.15 Chair and Vice-chairs are running for reelection.

Chair reminded attendees that highlights of the IEEE-SA Standards Board Bylaws on Patents in Standards. Chair referred those who wished to review these policies that the IEEE-SA patent policy presentation slides 1-5 and reading the instructions for the WG Chair. (<http://standards.ieee.org/board/pat/pat-slideset.ppt>).

Chair asked participants 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 the use of that standard:

* There were no responses
* Comment made noting that there is an updated slide presentation from pat-com

Chair reminded participants of IEEE anti-trust rules and obligations.

Approve/modify joint opening agenda ([15-17-0676-02](https://mentor.ieee.org/802.15/dcn/17/15-17-0676-02-0000-802-15-sna-2018-graphic-agenda.xlsx))

* Moved by C Powell, seconded by J Holcomb. Following neither discussion nor objection the agenda was approved.

Review and approve 802.15 WG minutes from the Orlando session ([15-17-0613-00-0000](https://mentor.ieee.org/802.15/dcn/17/15-17-0613-00-0000-minutes-from-orlando-nov-2017.docx))

* Moved by C Powell, seconded by J Holcomb. Upon neither discussion nor objection the joint minutes were approved.

**9:42** Treasury report by Ben Rolfe ([15-18-0015-00](https://mentor.ieee.org/802.15/dcn/18/15-18-0015-00-0000-treasurer-report-january-2018-irvine.pptx))

* Straw poll of those who wish to keep the meeting fee based on the projected cost of the upcoming session versus changing to a fixed fee based on the session cost averaged over multiple sessions: 15/0/5

**10:05** WG recessed

**Wednesday 17 Jan 2018**

**802.15 mid-session plenary meeting**

**10:31** Bob Heile called the meeting to order.

Announcements:

* Please don’t use 802.15 as your affiliation
* Social: K1 racing
* Reminder to book your room for the March plenary
* Straw Polls on venue: would you want to come back to this venue? 27/1/0

**802.18 liaison** by Jay Holcomb

* Discussed:
* America consultations: on spectrum outlook, and APAC
* EMEA: 60 GHz activities, OfCom on fixed wireless
* IEEE-SA position statement on additional spectrum needed has been modified by BoG

**TG4s by S Kitazawa**

* Is now complete and approved by RevCom

**TG4m by R Heile**

* The roll-over will now include 4s and corr1

**TG7m** closing reportby R Roberts (15-18-0041-00)

Motion: *Move that 802.15 WG start a WG Letter Ballot recirculation approval of CA document 15-17-627r1 and document P802-15-7m\_LB D01 (as edited in accordance with the instructions in document 15-18-0008-r3-007a) and to forward document P802-15-7m\_LB D01, as edited in accordance with the instructions in document 15-18-0008-03-007a, and CA document 15-17-627r1 to Sponsor Ballot pending the completion and inclusion of the edits in the draft.*

Upon neither discussion nor objection the motion carries

Motion*: that 802.15 WG approve the formation of a Ballot Resolution Committee (BRC) for the WG balloting of the P802.15.7m-LB D01, with the following membership: Yeong Min Jang, Rick Roberts, Hideki Aoyama, Soo-Young Chang, Jaesang Cha, Van Trang Nguyen and Volker Jungnickel. The 802.15.7m 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*

Upon neither discussion nor objection the motion carries

**IG VAT** closing reportby R Roberts (15-18-0044-00)

**TG13** by Volker Jungnickel

**SG 15.4w** by Jörg Robert

* Finalizing PAR and CSD

**SG 15.4x (FANE)** closing reportby M Gillmore (15-18-0049-00)

*Request that the PAR and CSD contained in documents 15-18-0624-02 and 15-18-0622-02, respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the 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: Matt Gillmore

Seconded by:  Ben Rolfe

Upon no further discussion the vote was taken with the results of 19/0/0

**TG10a** closing reportby C Perkins(15-18-0045-00)

**TG12 ULI** by P Kinney

* Defining the details of the ULI

**SC maintenance** by P Kinney

* Corrigendum results were presented, corrigendum is waiting for RevCom approval at next RevCom conference

**SC WNG** by P Kinney

* + There will be no meeting since there has been no presentation request

**AoB**

**11:09** Recessed until Thursday at 18:30

**Thursday, 18 Jan 2018**

**18:33** 802.15 WG chair called the meeting to order

**18:35** TG4m by R Heile

15.4 roll-up will be sent out to various consortiums by end of month

**18:37** TG13closing report by Volker Jungnickel (15-18-0065-00)

**18:42** SG 4w (LPWAN) closing report by Jörg Robert (15-18-0058-01)

*Request that the PAR and CSD contained in documents 15-18-0050-02 and 15-18-0053-01, respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the 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.*

Comment: delete text stating “current revision”

Moved by: Jörg Robert

Seconded by: Clint Powell

Upon no further discussion the vote was taken with the results of 15/2/1, motion carries

**18:55** IG 4z (ELR) by T Harrington (15-18-0023-01)

Motion: *Request that the PAR and CSD contained in documents [15-18-0059-00-0000] and [15-18-0036-00-0000], respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the 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.*

Comments:

* + delete text stating “current revision”
	+ remove text “potential” in 5.2.2

Moved by: T Harrington

Seconded by: B Rolfe

Upon no further discussion the vote was taken with the results of 14/2/3, motion carries

**19:06** SG 4y (SECN) closing report by D Sturek (15-18-0052-04)

*Request that the PAR and CSD contained in documents 15-18-0037-02 and 15-18-0040-03, respectively, be approved by the IEEE 802.15 WG and that the EC be requested to forward the 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.*

Comments:

* + delete text stating “current revision”
	+ change scope to remove text “explore”, “potential”
	+ change defining to defined
	+ remove “current” on 3rd sentence of 5.2.b.
	+ expand “AES”
	+ CSD - change managed objects to yes

Moved by: Don Sturek

Seconded by: J Gilb

Upon no further discussion the vote was taken with the results of 18/0/0, motion carries

**19:20** TG12 ULI closing report by Pat Kinney (15-18-0012-01)

**19:25** SCclosing report by Pat Kinney (15-18-0014-00)

**19:29** 802.18 liaison report by J Holcomb (15-18-0056-00)

**19:40** 802.11 liaison report by A Petrick (15-18-0060-01)

**19:54** 802.24 liaison by T Godfrey

* Discussion on ITU regulatory items with 802.19
* TSN white paper effort is ongoing

**AoB**

**19:58** Motion *to adjourn* was made by C Powell, seconded by J Gilb, upon no objection the motion carried, this session is adjourned.

**Annex A** Attendance = 47

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Abdallah | Mohamed | HBKU, Qatar Foundation |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Alfvin | Richard | Linespeed Events |
| Baer | Bernd | Marquardt |
| Barras | David | 3db Access AG |
| Bims | Harry | Bims Laboratories, Inc. |
| Cha | Jaesang | SNUT |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| De Ruijter | Hendricus | Silicon Laboratories |
| Fan | Xiaojing | Fujitsu Research & Development Center |
| Ferreira | Danie | User -other |
| Gillmore | Matthew | Itron Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harrington | Timothy | Pro-ID |
| Heile | Robert | Wi-SUN Alliance |
| Holcomb | Jay | Itron Inc. |
| Jang | Yeong Min | Kookmin University |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Kain | Carl | Noblis, Inc. |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| Krieger | Ann | US Department of Defense |
| Leong | Frank | NXP Semiconductors |
| Mariappan | Vinayagam | SNUT |
| Mennecke | Ryan | Johns Hopkins University Applied Physics Lab |
| Nguyen | Trang | Kookmin University |
| Noshad | Mohammad | VLNComm |
| Perkins | Charles | Futurewei Technologies |
| Polland | Joe | CommScope, Inc. |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| 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 |
| Serafimovski | Nikola | pureLiFi |
| Shah | Kunal | Silver Spring Networks Inc. |
| Sturek | Don | Itron Inc. |
| Sumi | Takenori | Mitsubishi Electric Corporation |
| Verso | Billy | DecaWave |
| Wang | Xu | VLNComm |
| Wechsler | Johannes | Fraunhofer Institute for Integrated Circuits IIS |
| Yu | Jian |  |
| Zuniga | Juan Carlos | SIGFOX |