**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 | [19 July 2019] |
| Source | [Pat Kinney][][Chicago, IL][Benjamin Rolfe][Blind Creek Associates][Los Gatos, CA, USA] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org]Voice: [+1.408.395.7207]Fax: [Deprecated]E-mail: [ben.rolfe@ieee.org] |
| Re: | [802.15 Plenary Meeting in Vienna, AT] |
| Abstract | [IEEE 802.15 Working Group Minutes] |
| Purpose | [Official minutes of the Working Group Session] |
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**121th IEEE 802.15 WSN MEETING**

**VIENNA AUSTRIA CONVENTION CENTER**

**VIENNA, AUSTRIA**

**July 15-18, 2019**

**Monday, 15 July 2019**

**Working group opening plenary (121th session of 802.15)** (?? attendees)

**10:30** B Heile, Decawave, WG chair called the 802.15 WG plenary to order ([15-19-0284-00](https://mentor.ieee.org/802.15/dcn/19/15-19-0284-00-0000-july-2019-plenary-opening-report-for-802-15.pptx))

Announcements:

* IEEE 802 Wireless Top 10
* No Social
* Network from LineSpeed
* Projectors are from 2 different vendors: MUST make all requests through Face to Face
* There were 0 first time attendees
* Jay Holcomb (802.18 chair) put out a request for a vice-chair and secretary for 802.18
* Ben Rolfe (802.19.3 TG chair) put out a request for permanent recording secretary for 802.19.3

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. (<https://standards.ieee.org/about/sasb/patcom/materials.html>**)**.

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

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

**Motion:** *Approve opening agenda* (([15-19-0284-00](https://mentor.ieee.org/802.15/dcn/19/15-19-0284-00-0000-july-2019-plenary-opening-report-for-802-15.pptx))

* Moved by R Alfvin (Linespeed)
* Seconded by B Rolfe (Blind Creek Associates)
* Following neither discussion nor objection the agenda was approved.

**Motion:** *Review and approve 802.15 WG minutes from the May session* ([15-19-0208-00-0000](https://mentor.ieee.org/802.15/dcn/19/15-19-0208-00-0000-wg-minutes-from-atlanta-may-2019.docx))

* Moved by R Alfvin (Linespeed)
* Seconded by B Rolfe (Blind Creek Associates)
* Upon neither discussion nor objection the WG minutes were approved.

**10:44** Network and attendance information by R Alfvin (Linespeed) ([http://ieee802.linespeed.io/)](http://ieee802.linespeed.io/%29)

**10:45** Treasury report by Ben Rolfe (Blind Creek Associates) - Verbal

**10:46** 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 https://mentor.ieee.org/802-ec/dcn/19/ec-19-0115-00-WCSG-vienna-july-2019-minutes.docx

**10:51** AoB

None

**10:52** WG recessed

**Wednesday 17 July 2019**

**802.15 mid-session plenary meeting**

**10:35** Bob Heile (Decawave) called the meeting to order.

Announcements:

* Please don’t use 802.15 as your affiliation
* Reminder to book your room and register for the September interim in Hanoi
* Straw Poll: Move Closing from PM3 to PM2
	+ 10 yes, 10 no
	+ Leave PM3
	+ Conclusion: No change in the schedule

**802.18 liaison** by Jay Holcomb (Itron)

* Discussed:
	+ UWB: news in Japan
	+ Submission in APT on WRC19 Agenda Items
	+ UWB in USA: petition to FCC to review Subpart F; wait and hold and see where it goes.
* Malaysia looking for input on WRC19 agenda items, 18 will work on that

**TG4md (revision)** by G Stuebing (Cisco Systems)

* Comment resolution form initial WG LB
* Form CRG
* Expect at least one WG recirculation ballot before Hanoi

**TG 15.4w** (**LPWAN**)by Jörg Robert (University of Erlangen-Nuremberg)

* Recirculation comments have been resolved
* Planning recirculation following this meeting
* Did TG motion for recirculation – passed UC
* Did TG CRG motion – passed UC

***Motion:*** *Move that 802.15 WG start a WG recirculation requesting approval of CA document 15-19-0165-01-004 and document P802.15.4w\_D3 and to forward document P802.15.4w\_D3, to Standards Association ballot.*

Moved by: Joerg Robert

Seconded by: Rick Alfvin

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

***Motion:*** *Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.4w\_D3 with the following membership: Joerg Robert (Chair), Charlie Perkins, Johannes Wechsler, and Hendricus De Ruijter. The 802.15.4w CRG is authorized to approve comment resolutions, edit the draft according to the 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: Joerg Robert

Second: Thomas Kurner

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

**TG 15.4y (SEC)** by D Sturek (Itron)

* Draft development
* Draft out for informal comment collection prior to September
* Comment resolution in September with WG ballot expected after

**TG 15.4z (EIR)** by T Harrington (Pro ID)

* resolving comments
* expect to begin recirc following this meeting

**TG13** by Volker Jungnickel (Fraunhofer Heinrich Hertz Institute)

* Working on finalizing the draft, resolving TBDs.
* Expect draft out for informal comment collection prior to September
* Comment resolution in September with WG ballot expected after

**IGDEP** by R Khono (self)

* Continued IG

**TEG THz** by Thomas Kurner (TU Braunschweig)

* Closing report Document # 281r0
* Document submission to 802.18 doc # 276r3
* Motion in TG passed

***Motion:*** *Request that document 276r3 be forwarded to 802.18*

Moved by Thomas Kurner

Second by Tero Kivinen

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

**IG VAT** by Yeong Min Jang (Kookmin University)

* Working on PAR and CSD for revision of 802.15.7-2018

**SG9a** by Tero Kivenen

* Working on PAR and CSD for revision of 802.15.9 (rev ma)

**SC maintenance** by Bob Heile (Decawave)

* Presents the changes to OM (doc #15-10-0235-23)
* Requests WG members review
* Will move to approve in closing Thursday PM3

**SC WNG** by B Rolfe (Blind Creek Associates)

* There are no WNG presentations

**AoB**

* None

**11:01** Recessed until Thursday at 18:30

**Thursday, 18 July 2019**

**18:32** 802.15 WG chair called the meeting to order (38 attendees)

Straw Poll: those who would be OK to return to this venue: 16; those who do not want to return to this venue: 6.

Straw Poll: How many prefer a conference center independent of the hotel: 4; those who prefer having everything in one space: 16

Straw Poll: Who prefers the lowest total cost over venue type: 7

**18:39** TG4md closing report by G Stuebing (Cisco Systems) (15-19-0355-01)

***Motion****:* *Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.4-REVd-D03 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 CRG is authorized to approve comment resolutions and to approve the start of a recirculation letter ballot of the revised draft on behalf of the 802.15 WG. Comment resolution on 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 (Cisco Systems)

Seconded by: Clint Chaplin (Samsung)

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

**18:50** TG 4y (SECN) closing reportby D Sturek (Itron) (15-19-0322-01)

Informal Working Group Review starting in August 2019 and plan to begin WG letter ballot following September.

**18:50** Profiles closing reportby D Sturek (Itron) (15-19-0357-00)

**18:57** TG 4w (LPWAN) closing report by Jörg Robert (University of Erlangen-Nuremberg) (15-19-0352-01)

Started recirculation of D03. Note: Formed BRC at midweek.

***Motion:*** *802.15 has reviewed and approves the CSD 15-18-0053-04, and the CA document 15-19-0165-01; and requests conditional approval from the EC to submit P802.15.4w\_D3 (or current revision) to Standards Association ballot.*

Moved by Joerg Robert

Second by Rick Alfvin

Count: 26 yes / 0 no / 0 abstain

**19:02** TG 4z (ELR) closing reportby T Harrington (Pro-ID) (15-19-0360-00)

*Move that 802.15.4z WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.4z\_D02 with the following membership: Ayman Naguib (Apple), Seongah Jeong (Samsung), Aditya Padaki(Samsung), Billy Verso (Decawave), Frank Leong (NXP), Tim Harrington (Chair) (Pro-ID), Ben Rolfe (Blind Creek), David Barras (3dB), Boris Danev (3dB), Brima Ibrahim(NXP), Peter Sauer (Microchip), Jaroslaw Niewczas (Decawave), Zheda Li (Samsung), Clint Chaplin (Samsung), Jochen Hammerschmidt (Apple). The 802.15.4z CRG is authorized to approve comment resolutions, edit the draft according to the 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, via teleconferences and face to face meeting(s) announced to the reflector as per the LMSC 802 WG P&P.*

Moved by Tim Harrington (Pro-ID)

Seconded by Billy Verso (Decawave)

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

**19:03** TG12 ULI did not meet

**19:08** TG13closing report by Tuncer Baykas (Vestel) (15-19-0359-01)

**19:11 802.15.22.3** closing report by Apurva Mody (BAE Systems) (15-19-00358-00)

***Motion:*** *Approve forwarding P802.15.22.3 PAR extension documentation in 15-19-0305-01 to NesCom.*

*[*[*https://mentor.ieee.org/802.15/dcn/19/15-19-0305-01-0000-802-15-22-3-par-extension.pdf*](https://mentor.ieee.org/802.15/dcn/19/15-19-0305-01-0000-802-15-22-3-par-extension.pdf)*]*

Moved by Apurva Mody, seconded by Roger Marks

Count: 27 yes / 0 no / 2 abstain

***Motion:*** *Approve sending 802.15.22.3 D05 to SA Ballot Confirm the CSD for 802.15.22.3 in* [*https://mentor.ieee.org/802.22/dcn/19/22-19-0028-01-0003-updated-csd-for-p802-22-3-transfer-of-project-to-ieee-802-15-wg.docx*](https://mentor.ieee.org/802.22/dcn/19/22-19-0028-01-0003-updated-csd-for-p802-22-3-transfer-of-project-to-ieee-802-15-wg.docx)

Moved by Apurva Mody

Seconded by Roger Marks

Count: 26 yes/ 0 no / 2 abstain

***Motion:*** *Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the SA balloting of the P802.15.22.3 D05 with the following membership: Apurva Mody (Chair), Oliver Holland, Roger Hislop, Gianfranco Miele, Ranga Reddy. The 802.15.22.3 CRG is authorized to approve comment resolutions, edit the draft according to the 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 Apurva Mody

Seconded by Roger Marks

Discussion: Bob explains 22 voters became 22 voters. Asks the floor if anyone else wants to volunteer for the CRG. No further volunteers heard.

Upon no further discussion nor objection the motion carries with unanimous consent.

**19:20** IGDEP closing report by Huan-Bang Li (NICT) (15-19-0237-00)

**19:24** IGVAT closing report by Bob Heile (Decawave) (verbal)

**19:26** IG9m closing report by Bob Heile (Decawave) (15-19-0295-01)

***Motion:*** *Request that the PAR and CSD contained in documents 15-19-0215-04 and 15-19-0216-02, 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 Ben Rolfe

Seconded by Tim Harington

Discussion: 2 editorial changes to PAR scope are identified and corrections applied, resulting in r04.

Count: 26 yes / 0 no / 0 abstain

**19:31** SC closing report by Bob Heile (Decawave) (15-19-0361-00)

***Motion:*** *Approve 802.15 OM Revision 23*

Moved by Ben Rolfe (Blind Creek Associates)

Seconded by Gary Stuebing (Cisco Systems)

Upon no discussion nor objection the motion carries with unanimous consent

**19:34** 802.11 liaison report by Al Petrick (Jones-Petrick and Associates) (15-19-0353-00)

**19:42** 802.18 liaison report by J Holcomb (Itron) (15-19-0287-00)

**19:46** 802.24 liaison report by T Godfrey (EPRI) (15-19-365-00)

**19:48** 802.19 liaison report by B Rolfe (Blind Creek, Mitsubishi Electric Research Labs)

* Discussion on Coexistence Assessment process document. Revised document being balloted in 802.19. WG15 chair Bob Heile requests review and forward any comments to him to submit with WG15 chair’s vote.
* TG3 looking to put out another CFR for 802.11ah and 802.15.4g coexistence contributions. Draft development underway.

**19:50 AoB**

 Hanoi update by Bob Heile. Register early and often.

**19:51** **Motion** *to adjourn* was made by Gary, seconded by Jay, upon no objection the motion carried, this session is adjourned.

**19:52 Adjourned**

**Annex A** Attendance = 78

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| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Abington | Alistair |  |
| Ahlendorf | Hendrik | NXP Semiconductors |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Alfvin | Richard | Linespeed Events LLC |
| Baer | Bernd | Marquardt |
| Barras | David | 3db Access AG |
| Baykas | Tuncer | Istanbul Medipol University |
| BEECHER | PHILIP E | Wi-SUN Alliance |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Castro | Carlos | Fraunhofer Heinrich Hertz Institute |
| Cha | Jaesang | SNUT |
| Chang | Soo-Young | California State University, Sacramento (CSUS) |
| Chaplin | Clint | Samsung Research America |
| Choi | Sangsung | Woosong University |
| Danev | Boris | 3db Access AG |
| Delsuc | Julien | Thales Group |
| De Ruijter | Hendricus | Silicon Laboratories |
| Feng | Xiang | Keysight Technologies |
| Gilb | James | Gilb Consulting, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| Harrington | Timothy | Pro-ID |
| Heile | Robert | DecaWave |
| Hett | Christopher | Landis Gyr Group Worldwide |
| Hinrichs | Malte | Fraunhofer Heinrich Hertz Institute |
| Hislop | Roger | Internet Solutions |
| Holcomb | Jay | Itron Inc. |
| HOSAKO | IWAO | National Institute of Information and Communications Technology (NICT) |
| Ikegami | Tetsushi | Meiji University |
| Jang | Yeong Min | Kookmin University |
| Jeong | Seongah | Samsung Electronics Co., Ltd. |
| JOO | SEONG-SOON | Electronics and Telecommunications Research Institute (ETRI) |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Karthik | S. G. | SAMSUNG ELECTRONICS |
| Kim | Jin | Kwangwoon University |
| Kim | Seongkweon | SNUT |
| 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) |
| Krieger | Ann | US Department of Defense |
| Kuerner | Thomas | TU Braunschweig |
| Lee | Jack | Samsung Electronics Co., Ltd. |
| LEE | Mingyu | Samsung Electronics Co., Ltd. |
| Lee | Sang Woon | Nam Seoul University |
| Leong | Frank | NXP Semiconductors |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Li | Zheda | Samsung Research America |
| Lim | Sang-Kyu | Electronics and Telecommunications Research Institute (ETRI) |
| Lorbach | Thomas | NXP Semiconductors |
| MAQBOOL | Masood | Apple, Inc. |
| MARIAPPAN | VINAYAGAM | SNUT |
| Miele | Gianfranco | University of Cassino and Southern Lazio |
| Mody | Apurva | BAE Systems |
| Naguib | Ayman | Apple, Inc. |
| OGUZ | Onur | Valeo CDA |