**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 | [13 July 2020] |
| Source | [Pat Kinney][<Kinney Consulting LLC>][Chicago, IL] | Voice: [+1.847.960.3715]Fax: [+1.847.790.3805]E-mail: [pat.kinney@ieee.org] |
| Re: | [802.15 Plenary Meeting held virtually] |
| Abstract | [IEEE 802.15 Working Group Minutes] |
| Purpose | [Official minutes of the Working Group Session] |
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**125th IEEE 802.15 WSN MEETING**

**Held Virtually via Webex (all times in EDT)**

**July 13-17, 2020**

**Monday, 13 July 2020**

**10:33 AM** The chair, Bob Heile (Wireless Communications Consulting), called the meeting to order (15-20-0173-01-0000), there were 41 attendees at this meeting.

The chair announced that this was the first plenary of 2020. WG LB for 802.15 officers closed yesterday and results will be announced at the end of this meeting.

The chairasked for new attendees to identify themselves; there were none.

Announcements:

* Don’t forget to announce your name and affiliation before you speak

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

Rick Alfvin 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.

Rick Alfvin displayed and read the standard IEEE Anti-Trust statement.

Rick Alfvin moved to *approve the agenda (document 15-20-0173-01-0000)* with Ben Rolfe (Blind Creek Associates) seconding the motion. Following no objection, the agenda was approved.

Rick Alfvin moved *to approve the previous meeting minutes (document 15-20-00019-00-0000)* and Ben Rolfe seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

Rick Alvin presented the attendance information, i.e. use IMAT. Only 2 sessions, opening and closing plenaries) are required to get attendance credit for this plenary. All TG meetings are extra credit.

Ben Rolfe: no report at this time, a report will be given at the closing plenary. Both Warsaw and Atlanta cancelled venues will not result in termination fees in lieu of scheduling the venues in 2003.

Bob Heile announced the wireless chairs EC meeting will be held on Tuesday.

B Heile announced that the 802 EC is working with AudCom on the rules changes made necessary by having virtual meetings. CRGs will now go from plenary to plenary.

**Status Reports**

802.15

Task Group 4m status

* Email from Catherine Berger stated:
	+ “*Because the production of IEEE Std 802.15.4-2020 is taking longer than expected, I am thinking it might be the faster and better idea to roll these amendments [802.15.4z and 802.15.4w] directly into the base and publish everything at once. It would be clear to everyone that these two amendments are included as the cover would read:*
	+ **IEEE Std 802.15.4™-2020**
	+ **(Revision of IEEE Std 802.15.4-2015 and**
	+ **incorporating IEEE Std 802.15.4z-2020**
	+ **and IEEE Std 802.15.4w-2020)”**

Task Group 4y – SECN

* Two meetings this week, comment resolution, reform the CRG

Task Group 9ma –

* + - Meeting before the 4y meeting, start a LB and CRG

Task Group 13 –Multi Gigabit/sec OWC

* Recirculation ballot #2 is ongoing
	+ - Two meetings this week

Task Group 16t

* 1 meeting slot this week

Task Group 22.3

* Recirculation ballot is ongoing

THz

* One meeting this week
* Consequences of WRC 2019

IG JRE

* Three time slots this week
* Chair will submit to NesCom in Sept 2020

Standing Committees (SCm)

* One meeting this week:
	+ Corrigendum of 802.15.4-2020
	+ OM changes due to virtual meetings

Officer Voting Results

* Ballot closed yesterday
* 66 votes were received out of a pool of 110, giving a return rate of 60.0%

WG Chair:

* Gary Stuebing: 16 votes (24.62%)
* Bob Heile: 49 votes (75.38%)
* Abstain: 1 vote

WG Vice Chair: Technical

* Phil Beecher: 20 votes (31.25%)
* Pat Kinney: 44 votes (68.75%)
* Abstain: 2 votes

WG Vice Chair, Operations

* Rick Alfvin: 65 votes (100%)
* Abstain: 1 vote

**11:20 PM** The chair recessed the meeting

**Friday, 17 July 2020**

**10:33** WG chair called the meeting to order, there were 56 attendees at this meeting

**10:36** **TG4y by Don Sturek** (Itron) (15-20-186-01)

*Move that 802.15 WG start a WG Recirculation Letter Ballot requesting approval of document P802-15-4y\_D1 and to forward document P802-15-4y\_D1, as edited in accordance with the instructions in document 15-20-0103 to Standards Association ballot pending the completion and inclusion of the edits in the draft.*

Moved by Don Sturek, seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

*Move that TG4y requests 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.4y-D1 with the following membership: Don Sturek (Chair), Tero Kivinen, Peter Yee, Ruben Salazar. The 802.15.4y CRG is authorized to approve comment resolutions and to approve the start of recirculation ballots of the revised draft on behalf of 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 Don Sturek, seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

**10:38** TG9ma by Tero Kivinen (self employed) (15-20-0179-01)

*Move that 802.15 WG start a WG Letter Ballot requesting approval of document P802.15.9ma-DF1 and to forward document P802.15.9ma-DF1, to Standards Association ballot*

Moved by Tero Kivinen, seconded by Ben Rolfe

Upon hearing no objection, the motion carries by unanimous consent

*Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.9ma-DF1 with the following membership: Tero Kivinen (Chair), Ben Rolfe, Don Sturek, Pat Kinney, and Peter Yee. The 802.15.9ma 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 Tero Kivinen, seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

**10:49** TG13 closing report by Volker Jungnickel (Fraunhofer Heinrich Hertz Institute) (15-20-0195-01)

*Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the Standards Association balloting of the P802.15.13\_D3 with the following membership: Volker Jungnickel (Chair), Nikola Serafimovski, Tuncer Baykas, Sang-Kyu Lim, Jörg Robert, Tero Kivinen. The 802.15.13 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 Volker Jungnickel and seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

**10:54** TG 16t closing report by Tim Godfrey (EPRI) (15-20-181-03)

*Motion to amend the scope of the 16t PAR: Request that the PAR and CSD contained in documents 802.15-20-0195r0 and 802.24-19-0030r0, 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 Tim Godfrey, seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

Comment by P Nikolich: concerned about using Word instead of FrameMaker, recommends talking to C Berger about this matter.

**10:41** TG22.3 by Apurva Moody (BAE Systems) (15-20-0190-02)

*Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the SA balloting of the P802.15.22.3 D06 with the following membership: Apurva Mody (Chair), Oliver Holland, Roger Hislop, Gianfranco Miele, Ranga Reddy, Mike Cotton, Harry Bims, Douglas Boulware. 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 and seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

Motion: *that 802.15 WG has reviewed and affirms the CSD* [*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)*. and requests conditional approval from the EC to submit 802.15.22.3-D07 (or current revision) to RevCom*

Moved by Apurva Mody and seconded by Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

Motion: *WG requests that the 802 EC approve One Year PAR Extension on 802.15.22.3*[*https://mentor.ieee.org/802.15/dcn/20/15-20-0197-01-0022-802-15-22-3-par-extension.pdf*](https://mentor.ieee.org/802.15/dcn/20/15-20-0197-01-0022-802-15-22-3-par-extension.pdf)

Mover: Apurva Mody and seconded: Rick Alfvin

Upon hearing no objection, the motion carries by unanimous consent

**11:32** THz TAG by Thomas Kürner (TU Braunschweig) (15-20-0185-00)

**11:45** IG JRE byTakashi Kuramochi (Lapis Semiconductor) (15-20-0191-01**)**

Request that the PAR and CSD contained in documents [15-20-0158-04-0jre] and [15-20-0159-04-0jre], 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 transfer the contents of 15-20-0158-04-0jre to the correct PAR form and to make additional modifications to the PAR and CSD as needed to reflect EC discussion at its closing meeting.

Ben Rolfe had objections to the above PAR:

1. it’s on the wrong form,
2. what types of changes are possible for an FSK PHY that are not already in the standard?

Chair asked Takashi Kuramochi to spend more time in rewriting the PAR and then put this PAR on a WG electronic ballot

**11:48** Standing Committees closing report by P Kinney (Kinney Consulting) (15-20-0183-01)

*Motion: request that the PAR contained in document [15-20-0193-01] 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 to reflect EC discussion at its closing meeting.*

Moved by Kunal Shah, seconded by Pat Kinney

Upon hearing no objection, the motion carries by unanimous consent

**AoB**

WG Chair requested discussion on the following poll request from George Zimmerman (CME Consulting, Inc.):

*Chairs – with regards to the questions for your groups, I suggest the following questions be asked. It will help us to collate the results, and to focus the responses. Please pay attention to the discrete choices given, because free-form results could make understanding the answers difficult.*

1. *Given that IEEE 802 incurs significant expenses cancelling (plenary) face-to-face meetings, it has been suggested that a meeting fee might be charged for attendance at electronic meetings substituting for those face-to-face plenaries. What would you consider the highest reasonable and fair registration fee range to be? (select one)*
	1. *$800-$500*
	2. *$500-$300*
	3. *$150-$300*
	4. *My employer/sponsor is unwilling to pay meeting fees for electronic meetings.*
2. Once government and company restrictions have been lifted, what do you perceive as the reasonable number of face to face meetings (plenaries and interims) per year?
	1. *6 (pre-2020 amount, 3 plenaries, 3 interims)*
	2. *below (the division between plenaries and interims is TBD)*

Points made during discussion:

* Add one lower cost range
* What is included in the expenses: only cancelation fees?
* Fees are also needed to help offset costs of virtual meetings such as Webex etc.
* We’ve only delayed meeting costs for two meetings by requiring future meetings at the hotels
* Costs of canceling meetings under contract could be as high as ½ million dollars
* 802 currently has 9 contracts with 7 different venues
* Not enough information has been given as to how much cost for cancelation and how much for virtual costs
* It was noted that the above costs are much smaller than previous face to face total costs of $3,000 to $4,000
* IETF has great tools for virtual meetings like “meetecho”

**12:30** Motion *to adjourn* was made by Clint Chaplin (Samsung Research America), seconded by Ben Rolfe. Upon hearing no objection, the motion carries; the session is adjourned.

**Annex A** Virtual attendance = 83

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

|  |  |  |
| --- | --- | --- |
| Alfvin | Richard | Linespeed Events LLC |
| Baykas | Tuncer | Istanbul Medipol University |
| Beecher | Philip | Wi-SUN Alliance |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Boulware | Douglas | National Telecommunications &amp; Information Administration - Institute for Telecommunication Sciences |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Card | Stuart William | AX Enterprize, LLC |
| Chaplin | Clint | Samsung Research America |
| Clanney | Nathan | Siemens Mobility, Inc. |
| Cotton | Michael G | NTIA |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Feng | Xiang | Keysight Technologies |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| HAN | CHONG | pureLiFi |
| Hara | Shinsuke | Osaka City University (OCU) |
| Harada | Hiroshi | National Institute of Information and Communications Technology (NICT) |
| Heile | Robert | Wireless Communications Consulting |
| Henry | Jerome | Cisco Systems, Inc. |
| Hett | Christopher | Landis Gyr Group Worldwide |
| Himsoon | Thanongsak | Meteorcomm |
| Hislop | Roger | Internet Solutions |
| Holcomb | Jay | Itron Inc. |
| Holland | Oliver | Advanced Wireless Technology Group (AWTG), Ltd. |
| HOSAKO | IWAO | National Institute of Information and Communications Technology (NICT) |
| Ikegami | Tetsushi | Meiji University |
| Ikuta | Tomohiro | Rohm |
| Jang | Yeong Min | Kookmin University |
| Joo | Seong-Soon | Electronics and Telecommunications Research Institute (ETRI) |
| Jornet | Josep Miquel | University at Buffalo |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Juntunen | Juha | Meteor Communications Corp. |
| Kashiwagi | Yoshio | Nissin Systems |
| KINNEY | PATRICK | Kinney Consulting LLC |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| Krieger | Ann | US Department of Defense |
| Kuerner | Thomas | TU Braunschweig |
| Kuramochi | Takashi | LAPIS Semiconductor Co., Ltd |
| Lee | Mingyu | Samsung Electronics Co., Ltd. |
| Li | Huan-Bang | National Institute of Information and Communications Technology (NICT) |
| Lopez | Miguel | Ericsson AB |
| Miele | Gianfranco | University of Cassino and Southern Lazio |
| Mody | Apurva | BAE Systems |
| Nagai | Yukimasa | Mitsubishi Electric Corporation |
| Naguib | Ayman | Apple, Inc. |
| Nelson | Kathleen | West Monroe Partners |
| Niewczas | Jaroslaw | DecaWave |
| Nikolich | Paul | YAS Broadband Ventures, LLC. |
| Okumura | Ryota | Kyoto University |
| Orlik | Philip | Mitsubishi Electric Corporation |
| Paget | Martin | Ondas Networks |
| Palmer | Clark | Meteorcomm LLC |
| Pirhonen | Riku | Self Employed |
| Polland | Joe | CommScope, Inc. |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| Riegel | Maximilian | Nokia |
| Robert | Joerg | University of Erlangen-Nuremberg |
| rocha | alessandra | Wimax forum |
| Rolfe | Benjamin | Blind Creek Associates |
| Salazar Cardozo | Ruben E | Landis+Gyr AG |
| Sand | Stephan | German Aerospace Center (DLR) |
| Sedin | Jonas | Ericsson AB |
| Serafimovski | Nikola | pureLiFi |
| Serang | Daoud | CML Microcircuits (USA) Inc. |
| Shah | Kunal | Silver Spring Networks Inc. |
| Simpson | Guy | Full Spectrum |
| Siriwongpairat | Wipawee | Meteor Communications Corp. |
| Smith | William | BNSF Railway |
| Stavridis | Athanasios | Ericsson AB |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Itron Inc. |
| Sumi | Takenori | Mitsubishi Electric Corporation |
| Verso | Billy | DecaWave |
| Wechsler | Johannes | Fraunhofer Institute for Integrated Circuits IIS |
| Wendt | Matthias | Signify |
| Wilhelmsson | Leif | Ericsson AB |
| Yang | Shang-Te | Apple, Inc. |
| Yee | Peter | NSA-CSD |
| Zeisberg | Sven | ZIGPOS GmbH |