**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | **<IEEE 802.15 WG & CAC minutes>** |
| Date Submitted | [22 July 2021]  |
| Source | [Clint Powell][][Chandler, AZ] | Voice: [+1.480.586.8457]Fax: [--]E-mail: [cpowell@ieee.org] |
| Re: | [July 802.15 Plenary Meeting held virtually] |
| Abstract | [IEEE 802.15 Working Group & CAC Minutes] |
| Purpose | [Official minutes of the Working Group and CAC Sessions] |
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**132nd IEEE 802.15 WSN MEETING**

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

**July 13-22, 2021**

# Tuesday, 13 July 2021

**Opening**

**9:00 AM** WG Chair, Pat Kinney (Kinney Consulting), called the meeting to order and opened the WG Agenda (*15-21-0168-02-0000*)

<https://mentor.ieee.org/802.15/documents?is_dcn=168&is_year=2021>

**Announcements**

WG Chair announced the agenda doc. # for the week.

WG Vice-Chair reviewed attendance tool.

Don’t forget to turn on your mic and announce your name and affiliation before you speak.

WG Chair announced the of DirectVoteLive (DVL) for all WG votes. DVL will only be used during this session and at the closing plenary meeting on Thursday, 22 July. He also noted that the motions would be loaded in advance of the meeting.

All WG motions (especially those relating to PARS) need to be sent to the Chair (Pat Kinney), Vice-Chair (Rick Alfvin), and Secretary (Clint Powell) by the end of EV2 on Wed. 7/21 so that they may be entered into DVL (Direct Vote Live) by the EOD. If you are not able to meet this deadline please work with Pat beforehand.

WG Chair asked for new participants to speak up using the chat window in Webex.

1 new participant announced that this was their first meeting.

## Legal

WG 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>).

WG 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.

No essential patent claims were brought forth.

WG Chair displayed and read the standard IEEE Anti-Trust statement.

WG Chair displayed and read the standard IEEE Copyright Policy, including Code of Ethics.

Chair went through the agenda.

## WG Approvals

Rick Alfvin (LineSpeed) moved to *approve the agenda (document# 15-21-0168-02-0000)* with Clint Powell (Facebook) seconding the motion. Following no objection, the agenda was approved.

Rick Alfvin (LineSpeed) moved *to approve the previous meeting minutes (document 15-21-0237-02-0000)* and Ben Rolfe (Blind Creek Assoc.) seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

**General and Administrative**

WG Vice-Chair presented the general meeting information:

* IMAT will be used for attendance
	+ 75% Attendance = 12 time slots (any 12 of the 30)
* There were 90 attendees at this point of the 802.15 Opening Plenary
* Voters: (voters: 96, nearly: 24, aspirant: 45)
* Webex will be used for all sessions

Ben Rolfe (BCA) gave the treasurers report *(document: ec-21-0130-00)*

* Still no income currently
* Continue to have some expenses
* Current balance of ~$350,542.34, ~$6k less than balance reported at May session
	+ This will decrease by another $12.5k to cover the Sept. virtual mtg. expenses

802 Wireless is targeting it’s next face-to-face meeting for the Jan. 2022 Mtg.

The July 802.15 CAC meeting minutes are included in the WG minutes
*(minutes: 15-21-0351-0x-0000)*

The Wireless Chairs Steering Committee meeting minutes are contained in
*(minutes: ec-21-0152-00)*

**Status Reports (Goals and objectives for the week)**

802.15 Status and Activities for the Week

* Task Group 15.4 Cor1 (3 sessions)
	+ Will continue hearing inputs and address comments received on PAR
* Task Group 15.4aa – JRE (2 sessions)
	+ LB186 recently closed, 0 comments were received, 0 No votes
* Task Group 15.7a – VAT (6 sessions)
	+ Continue work on draft
* Task Group 13 – Multi Gigabit/sec OWC (3 sessions)
	+ Working on CRs from 1st SB
* Task Group 16t – 802.16 Amendment (2 sessions)
	+ Continue to work on content, review of proposals and TGD
* Study Group 4ab – NG-UWB (5 sessions + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Hear presentations
	+ Main objective is to address comments received on PAR
* Study Group 6a – (DEP) (3 sessions + Joint 6a/4ab/14)
	+ Main objective is to address comments received on PAR
* Study Group 14 – NS-UWB (3 sessions + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Main objective is to address comments received on PAR
* Study Group 15 – NS-NB (3 sessions + Joint 4ab/14/15)
	+ Main objective is to address comments received on PAR
* Standing Committee – THz (2 sessions)
	+ Looking to start SG15.3g as a revision
* Standing Committee – IETF (1 session)
	+ Will be a short mtg., not much activity
* Standing Committee – SC-M, Rules (2 sessions)
	+ No topics currently, will likely cancel 2nd session
* Standing Committee – WNG (1 session)
	+ No topics currently
* Task Group 12 (0 sessions)
	+ WG Chair has an open A/I

**Operations Manual Overview**

NTR

**Any Other Business**

Straw Poll:

Will you attend the 2021 November IEEE 802 Plenary if held in-person at the Hyatt Regency Vancouver, Canada Nov 14-19, 2021?

Of the 100 attending at the time of the straw poll, the responses were as follows:

29 Yes

42 No

29 No response

WG Chair asked if there was any other business. None was raised.

**WG Recess**

**10:19 AM** WG Chair recessed the meeting

# Thursday, 22 July 2021

## Closing

**9:01 AM** WG Chair, Pat Kinney (Kinney Consulting) called the meeting to order

**9:02 AM** WGVice Chair, Rick Alfvin (LineSpeed) spoke to the attendance method (IMAT) and voting method (DVL)

> 70 participants on the call

All votes are recorded below as Y/N/A (Yes/No/Abstain)

## Announcements

#### WG Chair presented his Lessons Learned from this week:

* Things went much smoother with more people involved

## Closing Reports

**9:03 AM 802.15 WG** Closing Agenda by Pat Kinney (Kinney Consulting) (15-21-0168-02)

**9:05 AM** Motions to approve 802.15 WG responses to comments on 802.15 PARs and CSDs received from 802.1, 802.3, and 802.11:

Responses to comments received from 802.1

***Motion:****request that comment resolutions from 802.1 as contained in document*[*https://mentor.ieee.org/802.15/dcn/21/15-21-0417-00-0000-802-15-responses-to-802-1-wg-par-csd-comments.pptx*](https://mentor.ieee.org/802.15/dcn/21/15-21-0417-00-0000-802-15-responses-to-802-1-wg-par-csd-comments.pptx)*be approved by the IEEE 802.15 WG and that the PARs and CSDs be updated with those resolutions.*

**Moved by:**Ben Rolfe (Blind Creek Associates)

**Seconded by:**Rick Alfvin (Linespeed)

35 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 35/0/0, motion carries.

Responses to comments received from 802.3

***Motion:****request that comment resolutions from 802.3 as contained in document*[*https://mentor.ieee.org/802.15/dcn/21/15-21-0418-00-0000-802-15-responses-to-802-3-wg-par-csd-comments.pptx*](https://mentor.ieee.org/802.15/dcn/21/15-21-0418-00-0000-802-15-responses-to-802-3-wg-par-csd-comments.pptx) *be approved by the IEEE 802.15 WG and that the PARs and CSDs be updated with those resolutions.*

**Moved by:**Ben Rolfe (Blind Creek Associates)

**Seconded by:**Rick Alfvin (Linespeed)

39 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 39/0/0, motion carries.

Responses to comments received from 802.11

***Motion:****request that comment resolutions from 802.11 as contained in document*[*https://mentor.ieee.org/802.15/dcn/21/15-21-0419-00-0000-802-15-responses-to-802-11-wg-par-csd-comments.pptx*](https://mentor.ieee.org/802.15/dcn/21/15-21-0419-00-0000-802-15-responses-to-802-11-wg-par-csd-comments.pptx)*be approved by the IEEE 802.15 WG and that the PARs and CSDs be updated with those resolutions.*

**Moved by:**Ben Rolfe (Blind Creek Associates)

**Seconded by:**Rick Alfvin (Linespeed)

40 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 39/0/1, motion carries.

**9:20 AM TG4 Cor1** closing report by Kunal Shah (Itron) (15-21-0405-00)

Compiled list of proposals – 20 and counting

Generated responses to comments on PAR & CSD from 802.1, 802.3, and 802.11.

Plan to review draft at the Sept. mtg. and hear additional proposals.

***Motion:****Move that the PAR contained in document 15-21-0270-04 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 as needed to reflect EC discussion at its closing meeting..*

**Moved by:**Kunal Shah (Itron)

**Seconded by:** Rick Alfvin (Linespeed)

43 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 42/0/1, motion carries.

3 sessions requested for Sept. Mtg.

**9:27 AM TG4aa** closing report by Takashi Kuramochi (Lapis) (15-21-0402-02)

Plan to review comments at the Sept. mtg.

***Motion:***802.15 has reviewed and approves the CSD [15-20-0319-00-04aa], and the CA document [15-21-0083-08-04aa]; and requests conditional approval from the EC to submit P802.15.4aa\_D8 (or current version) to Standards Association ballot.

**Moved by:**Takashi Kuramochi (Lapis Technology)

**Seconded by:**Rick Alfvin (Linespeed)

42 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 41/0/1, motion carries.

***Motion:****Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the Standards Association balloting of the P802.15.4aa\_D8 (or current version) with the following membership: Kuramochi (Chair), Harada, Shah, De Ruijter, and Fukui. The 802.15.4aa 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:**Takashi Kuramochi (Lapis Technology)

**Seconded by:**Rick Alfvin (Linespeed)

40 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 40/0/0, motion carries.

3 sessions requested for Sept. Mtg.

**9:34 AM TG7a** closing report by Yeong Min Jang (Kookmin University) (15-21-0421-00)

Hear several proposals during the mtg.

6 sessions requested for Sept. Mtg. (prefer AM1 or alternatively EV2)

**9:40 AM TG13** closing report by Volker Jungnickel (Fraunhofer HHI) (15-21-0410-01)

Worked on comment resolution.

***Motion:****Request that the PAR extension and CSD contained in documents [15-21-0267-01] and [*[*https://mentor.ieee.org/802.15/dcn/17/15-17-0075-02-0000-multi-gigabit-owc-csd.docx*](https://mentor.ieee.org/802.15/dcn/17/15-17-0075-02-0000-multi-gigabit-owc-csd.docx)*], respectively, be approved by the WG and that the EC be requested to forward the PAR extension 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:**Volker Jungnickel (Fraunhofer HHI)

**Seconded by:**Rick Alfvin (Linespeed)

43 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 40/0/3, motion carries.

***Motion:****Move that 802.15 WG approves the formation of a Comment Resolution Group (CRG) for the Standards Association balloting of the P802.15.13\_D5 with the following membership: Volker Jungnickel as Chair, Chong Han, Tuncer Baykas, Sang-Kyu Lim, 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 (FIU)

**Seconded by:**Rick Alfvin (Linespeed)

39 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 36/0/3, motion carries.

4 sessions requested for Sept. Mtg.: 3 standalone + 1 joint w/ .7a

**9:48 AM TG16t** closing report by Tim Godfrey (EPRI) (15-21-0411-1)

Developing baseline SDD

2 sessions requested for Sept. Mtg. (on Tues.)

**9:53 AM SG6a** closing report by Ryuji Kohno (YNU/YRP-IAI)) (15-21-0406-02)

Generated responses to comments on PAR & CSD from 802.1, 802.3, and 802.11.

***Motion:****Request that the PAR and CSD contained in documents [15-21-0259-04] and [15-21-0260-03], respectively, be approved for submission to the WG for its approval 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:**Ryuji Kohno (YNU/YRP-IAI)

**Seconded by:**Rick Alfvin (Linespeed)

40 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 32/2/6, motion carries.

***Motion:****that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and CSD documents for SG15.6a.*

**Moved by:**Ryuji Kohno (YNU/YRP-IAI)

**Seconded by:**Rick Alfvin (Linespeed)

38 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 31/1/6, motion carries.

4 sessions requested for Sept. Mtg.: 3 standalone + 1 joint w/.4ab, .14

**10:00 AM SG4ab** closing report by Ben Rolfe (BCA/UWBA/et al.) (15-21-0420-03)

Generated responses to comments on PAR & CSD from 802.1, 802.3, and 802.11.

Heard several contributions.

***Motion:****Request that the PAR and CSD contained in documents [15-21-0126-04] and [15-21-0047-08], respectively*,*be approved for submission to the WG for its approval 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 (Blind Creek Associates)

**Seconded by:**Rick Alfvin (Linespeed)

41 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 41/0/0, motion carries.

***Motion:****that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and CSD documents for SG15.4ab.*

**Moved by:**Ben Rolfe (Blind Creek Associates)

**Seconded by:**Rick Alfvin (Linespeed)

41 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 40/0/1, motion carries.

7 sessions requested for Sept. Mtg.: 5 standalone + 1 joint w/.14, .15 + 1 joint w/.14, .6a

**10:05 AM SG14** closing report by Clint Powell (Facebook) (15-21-0376-04)

Generated responses to comments on PAR & CSD from 802.1, 802.3, and 802.11.

***Motion:****Request that the PAR and CSD contained in documents [15-21-0274-07-0014] and [15-21-0278-07-0014], 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:**Clint Powell (Facebook)

**Seconded by:**Rick Alfvin (Linespeed)

43 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 43/0/0, motion carries.

***Motion:****that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and CSD documents for SG15.14.*

**Moved by:**Clint Powell (Facebook)

**Seconded by:**Rick Alfvin (Linespeed)

43 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 43/0/0, motion carries.

5 sessions requested for Sept. Mtg.: 3 standalone + 1 joint w/.4ab, .15 + 1 joint w/.4ab, .6a

**10:10AM SG15** closing report by Phil Beecher (Wi-SUN Alliance) (15-21-0371-04)

Generated responses to comments on PAR & CSD from 802.1, 802.3, and 802.11.

***Motion:****Request that the PAR and CSD contained in documents [15-21-0265-04-0015] and [15-21-0301-01-0015], 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:** Phil Beecher (Wi-SUN Alliance)

**Seconded by:** Rick Alfvin (Linespeed)

44 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 43/0/1, motion carries.

***Motion:****that the 802.15 Working Group seeks approval from the 802 EC to extend the study group in 802.15 to develop the PAR and CSD documents for SG15.15.*

**Moved by:** Phil Beecher (Wi-SUN Alliance)

**Seconded by:** Rick Alfvin (Linespeed)

44 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 44/0/0, motion carries.

4 sessions requested for Sept. Mtg.: 3 standalone + 1 joint w/.4ab, .14

**10:15 AM SC THz** closing report by Thomas Kurner (TU Braunschweig) (15-21-0396-00)

Heard contributions.

***Motion:****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 “SG15.3ma: revision of IEEE Std 802.15.3” and additionally authorize the 802.15 WG Chair to make any necessary changes to these docs required to support the submission.*

**Moved by:**Thomas Kuerner (TU Braunschweig)

**Seconded by:**Rick Alfvin (Linespeed)

40 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 38/1/1, motion carries.

2 sessions requested for Sept. Interim Mtg. (prefer AM1 on Thurs & Mon)

**10:20 AM SC IETF** closing report by Tero Kivinen (Self) (verbal rpt.)

Next IETF mtg. July 26-30

1 session requested for Sept. Interim Mtg.

**10:23 AM SC WNG** closing report by Ben Rolfe (BCA/UWBA) (verbal rpt.)

No presentations.

1 session requested for Sept. Interim Mtg.

**10:25 AM SC M, Rules** closing report by Phil Beecher (Wi-SUN Alliance) (15-21-0390-01)

Reviewed Op’s Manual and made proposed changes *(doc. # 15-10-0235-28-0000).*

SC Chair asks that the WG review between now and Sept. in preparation for approval during the mtg.

1 session requested for Sept. Interim Mtg.

**10:32 AM 802.24** Liaison verbal report by Tim Godfrey (EPRI) (verbal rpt.)

One session was used to discuss the 802 architecture.

**10:35 AM 802.18** Liaison report by Jay Holcomb (Itron) (15-21-0349-00)

Discussed this week was the following:

* RR-TAG’s
* 6 GHz
* Liaisons w/ITU-R
* IEEE 802 frequency bands table spreadsheet
* FCC
	+ Wireless mics.
	+ Nonfederal space operations frequency usage
	+ etc.

**10:43 AM 802.19** Liaison report by Ben Rolfe (BCA/UWBA) (verbal rpt.)

No new activities related to 802.15.

**10:45 AM 802.11** Liaison report Clint Chaplin

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## Review of September Virtual Interim Meeting Plans

WG Chair reviewed the Sept. 802 Wireless Interim Session Dates: to be held 9/10 – 9/23

* EC Opening on 9/10, 3-5pm Eastern
* EC Closing on 9/23, 2-6pm Eastern
* There will be a $50 early registration fee through 6/30, and a $75 fee after 7/1
	+ Registration is open: <https://cvent.me/NxZeZx>
* The 802.15 WG plan for in person was Sept. 12-17, 2021
* 802.15 WG will hold its Sessions Sept. 14-22, 2021
	+ No objections were heard
* 802.15 CAC (a.k.a. AC - Advisory Committee) on 9/8, 10:00 am - Noon Eastern
	+ No objections were heard
* 802 WCSC (Wireless Chairs Standing Committee) on 9/8, 3:00 pm - 4:30 pm Eastern
* Fixed slots will be used for the TG, SG, IG chairs to select from
* Pat will not be available on Wed. 9/8 and Fri. 9/10

## Important PAR and CSD Dates

* June 8 Pre-circulation of PARs to all WGs
* July 14 All comments on any 802 PAR and CSD are due

(802.15 SC Maint. will need to setup a couple of interim telco’s to rvw.)

* July 21 Responses to comments due back to WG’s and EC
* July 23 EC approval of Study Groups to be proposed to NesCom
* Aug 13 NesCom submission deadline
* Sept 21-23 NesCom approval

## Open Discussion / Next Steps

None.

## WG Adjourn

**10:50** Upon hearing no objections, the WG Chair adjourned the meeting.

# Annex A Virtual attendance = 138

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Al-kadi | Ghiath | NXP Semiconductors |
| Aldana | Carlos | Facebook |
| Alfvin | Richard | Linespeed Events LLC |
| Almholt | Thomas | Texas Instruments Inc. |
| Amalladinne | Vamsi | Qualcomm Incorporated |
| Amezawa | Yasuharu | Mobile Techno Corp. |
| Au | Kwok Shum | Huawei Technologies Canada; Huawei Technologies Co., Ltd |
| Bahn | Christy | IEEE STAFF |
| Barras | David | 3db Access AG |
| Baykas | Tuncer | Kadir Has University |
| Beecher | Philip E | Wi-SUN Alliance |
| Berens | Friedbert | FBConsulting Sarl |
| Bettesh | Ido | Apple Inc. |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Chaplin | Clint | Self |
| Choi | Junyoung | Samsung Electronics Co., Ltd. |
| Choi | Sangsung | Kookmin University |
| Clanney | Nathan | Siemens Mobility, Inc. |
| Connerley | Royce | Union Pacific Railroad |
| Danev | Boris | 3db Access AG |
| de Perthuis | Hugues | NXP Semiconductors |
| Dotlic | Igor | Qorvo |
| Du | Rui | Huawei Technologies Co., Ltd |
| Ekrem | Ersen | Apple, Inc. |
| Fukui | Kiyoshi | Oki Electric Industry Co., Ltd. |
| Fukunaga | Masatoshi | Yokohama National University |
| GallegosRamonet | Alberto | Ritsumeikan University |
| Gan | Ming | Huawei Technologies Co., Ltd |
| Ghosh | Chittabrata | Facebook, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Golshan | Robert | Apple, Inc. |
| Grosswindhager | Bernhard | NXP Semiconductors |
| Guimond | Raphael | SPARK Microsystems |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| Gupta | Santosh | Qualcomm Incorporated |
| Ha | Taeyoung | Samsung Electronics Co., Ltd. |
| Hafuka | Takamitsu | LAPIS Technology Co., Ltd |
| Han | Chong | pureLiFi |
| Harada | Hiroshi | Kyoto University |
| Henry | Jerome | Cisco Systems, Inc. |
| Hernandez | Marco | National Institute of Info. and Comms. Technology (NICT) |
| Hett | Christopher | Landis Gyr Group Worldwide |
| Hirata | Masayuki | Osaka U. Grad. School of Medicine, Dept of Neurological Diagnosis and Restoration |
| Holcomb | Jay | Itron Inc. |
| Hosako | Iwao | National Institute of Info. and Comms. Technology (NICT) |
| Hu | Chunyu | Facebook |
| Hu | Mengshi | Huawei Technologies Co., Ltd; Huawei Technologies Co., Ltd |
| Ikegami | Tetsushi | Meiji University |
| Jang | Yeong Min | Kookmin University |
| Jiang | Jeng-Shiann | Vertexcom Technologies |
| Joo | Seong-Soon | Electronics and Telecomms Research Institute (ETRI) |
| Jornet | Josep Miquel | Northeastern University |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Juntunen | Juha | Meteor Communications Corp. |
| Kabbinale | Aniruddh | SAMSUNG |
| Kasamatsu | Akifumi | National Institute of Info. and Comms. Technology (NICT) |
| Kashiwagi | Yoshio | Nissin Systems |
| Keren | Rani | Huawei Technologies Co., Ltd |
| Kettle | Paul | Wyde Labs |
| Kim | Minsoo | YRP International Alliance Institute |
| Kinney | Patrick | Kinney Consulting LLC |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| Kobayashi | Takumi | Yokohama National University |
| Kohno | Ryuji | YNU/CWC UofOulu; YNU/YRP-IAI |
| Kondou | Keitarou | HRCP R&D Partnership |
| Koo | Jonghoe | SAMSUNG ELECTRONICS |
| Krieger | Ann | US Department of Defense |
| Kuechler | Wolfgang | NXP Semiconductors |
| Kuerner | Thomas | TU Braunschweig |
| Kume | Hiroshi | Wi-SUN Alliance |
| Kuramochi | Takashi | LAPIS Technology |
| Lee | Mingyu | Samsung Electronics Co., Ltd. |
| Lemsitzer | Stefan | NXP Semiconductors |
| Leong | Frank | NXP Semiconductors |
| Lim | Sang-Kyu | National Institute of Info. and Comms. Technology (NICT) |
| Liu | Chenchen | Huawei Technologies Co., Ltd |
| Liu | Peng | Huawei Technologies Co., Ltd |
| Liu | Yong | Apple, Inc. |
| Luo | Xiliang | Apple, Inc. |
| Ma | Yongsen | Redpoint Positioning |
| Mariappan | Vinayagam | SMR Automotive Modules Korea Ltd |
| Marks | Roger | EthAirNet Associates |
| McCann | Stephen | Huawei Technologies Co., Ltd |
| Mori | Kenichi | Representing myself |
| Mori | Yumi | Yokohama National University |
| Murray | Carl | Qorvo |
| Nabki | Frederic | SPARK Microsystems |
| Naguib | Ayman | Apple, Inc. |
| Neirynck | Dries | novelda |
| Niewczas | Jaroslaw | Qorvo |
| Ogawa | Hiroyo | National Institute of Info. and Comms. Technology (NICT) |
| Oh | Hyunseob | Samsung Electronics Co., Ltd. |
| Pace | James | Wyde Labs |
| Paillusseau | Nicolas | SPARK Microsystems |
| Parthasarathi | Srivathsa Masthi | NXP Semiconductors |
| Pirhonen | Riku | NXP Semiconductors |
| Polland | Joe | Self |
| Powell | Clinton | Facebook |
| Rahmani | Mohammad | SPARK Microsystems |
| Redlich | Oded | Huawei Technologies Co., Ltd |
| Robert | Joerg | TU Ilmenau/Fraunhofer IIS |
| Rocha | Alessandra | Wimax forum |
| Rolfe | Benjamin | Blind Creek Associates |
| Saito | Hiroki | ARIS Inc. |
| Salazar Cardozo | Ruben E | NO AFFILIATION |
| Sand | Stephan | German Aerospace Center (DLR) |
| Sasoglu | Eren | Apple, Inc. |
| Sato | Takahiro | Renesas Electronics Corporation |
| Sayrafian | Kamran | National Institute of Standards and Technology |
| Schuessler | James | Samsung Research America |
| Seidel | Hendrik | NXP Semiconductors |
| Sekine | Norihiko | National Institute of Info. and Comms. Technology (NICT) |
| Serang | Daoud | CML Microcircuits (USA) Inc. |
| Shah | Kunal | Silver Spring Networks Inc. |
| Shahr | Menashe | Ondas Networks |
| Shilo | Shimi | Huawei Technologies Co., Ltd |
| Simpson | Guy | Full Spectrum |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Itron Inc. |
| Suzuki | Takafumi | National Institute of Info. and Comms. Technology (NICT) |
| Tada | Kiyoshi | Yokosuka Telecom Research Park, Inc |
| Tian | Bin | Qualcomm Incorporated |
| Verso | Billy | DecaWave;Qorvo |
| Wang | Yi-Hsiu | Zeku |
| Wisland | Dag | Novelda AS; University of Oslo |
| Yamamoto | Tetsushi | Yokohama National University |
| Yang | Shang-Te | Apple, Inc. |
| Yang | Xun | Huawei Technologies Co., Ltd |
| Yee | Peter | NSA-CSD |
| Youssef | Mohamed | Apple, Inc. |
| Zakaib | Larry | SPARK Microsystems |
| Zeisberg | Sven | ZIGPOS GmbH |
| Zhou | Mingda | Redpoint Positioning |
| Zou | Qiyue | Facebook |

**802.15 CAC Mtg.**

**Wednesday, 7 July 2021**

## Attendance

Rick Alfvin

Phil Beecher

Jodi Haasz

Marco Hernandez

Jay Holcomb

Pat Kinney

Tero Kivinen

Ryuji Kohno

Takashi Kuramochi

Thomas Kurner

Paul Nickolich

Clint Powell

Kunal Shah

Gary Steubing

## Minutes

* Chair called the mtg. to order at 10:02 am
* 802.15 WG July Agenda is now at r1:

<https://mentor.ieee.org/802.15/dcn/21/15-21-0168-02-0000-july-2021-agenda.xlsx>

* Attendance for 802.15 in the July Plenary is similar to the May Interim
* For the July Session the following 16 time slots are defined as required:
	+ AM1, AM2, PM1
		- 7/13, 7/14, 7/15, 7/19, 7/20
	+ AM1
		- 7/22
* The remaining time slots are deemed extra credit, and will be counted towards the 12 minimum needed
* To meet the 75% attendance requirement, attendance would be needed at 12 time slots
* Voting will again be done using DirectVoteLive (DVL) in the closing plenary
* Motions are due to Chair by the end of the PM2 time slot on Wed. July 21st
* PAR and CSD reviews and extensions request
* July Plenary Session Update
* Opening 802 EC, 3-5pm EST on 7/9
* Closing 802 EC, 2-6pm EST on 7/23
* Study Group requests
* SG15.3g needs to be changed from an amendment to a revision
* Wireless Chairs mtg. will be held 3-4:30 pm EST on Wed. 7/7
* Subgroup Status and Objectives for July Plenary
* TG4 2020 Cor1
	+ 3 mtgs
	+ Will work on PAR modification and draft text
* TG4aa
	+ 3 mtgs
	+ Will work on comments
* TG7a
	+ 6 mtgs
	+ NTR
* TG13
	+ 3 mtgs
	+ Work on CR’s
* TG16t
	+ 2 mtgs
	+ NTR
* SG4ab NG-UWB
	+ 5 mtgs + 1 Joint 15.4ab, 15.14, 15.15
	+ Working on responses to comments received on PAR and CSD
* SG6a
	+ 3 mtgs + 1 Joint 6a, 15.4ab, 15.14
	+ Working on responses to comments received on PAR and CSD
* SG14 NS-UWB
	+ 3 mtgs + 1 Joint 15.4ab, 15.14, 15.15
	+ Working on responses to comments received on PAR and CSD
* SG15 NS-NB
	+ 3 mtgs + 1 Joint 15.4ab, 15.14, 15.15
	+ Working on responses to comments received on PAR and CSD
* SC THz
	+ 2 mtgs
* SC WNG
	+ 1 mtg
	+ No presentations currently scheduled
* SC IETF
	+ 1 mtg
* SC Main
	+ 2 mtgs
	+ No issues currently scheduled to discuss
	+ Chair email address needs to change
* 802.15 Sept. Interim Session
* 802.15 will hold sessions Sept. 13 (Tues.) – Sept. 22 (Wed.)
	+ Opening Plenary: 9/13, 9-11 am Eastern
	+ Closing Plenary: 9/22, 9-11 am Eastern
	+ CAC mtg. will occur on Sept. 8 (Wed.) @ 10 am Eastern
* Wireless Chairs mtg. will occur on Sept. 1 (Wed.), 3-4:30 pm Eastern
* 802 Wireless Opening Plenary will occur on Fri. Sept. 10 (Fri.), 9-11 am Eastern
* AOB
* Clint suggested using the joint .4ab/.14/.15 session to tackle the main/cross cutting PAR and CSD comments from 802.3
* Chair adjourned the mtg. at 10:57 am