**IEEE 802.15**

**Wireless Specialty Networks (WSN)**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Specialty Networks (WSN) |
| Title | **802.15 WG & CAC Minutes Virtual March Plenary 2022** |
| Date Submitted | [23 March, 2022]  |
| Source | [Clint Powell][Meta][Chandler, AZ] | Voice: [+1.480.586.8457]Fax: [--]E-mail: [cpowell@ieee.org] |
| Re: | [March 802.15 Plenary Meeting held virtually] |
| Abstract | [IEEE 802.15 Working Group & CAC Minutes] |
| Purpose | [Official minutes of the Working Group Opening/Closing and CAC Sessions] |
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**136th IEEE 802.15 WSN MEETING**

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

**March 8-16, 2022**

# 802.15 WG Opening

# Tuesday, 8 March 2022

**9:02 AM** WG Chair, Pat Kinney (Kinney Consulting), called the meeting to order and opened the WG Agenda (*15-22-0105-03-0000*)

<https://mentor.ieee.org/802.15/documents?is_dcn=105&is_year=2022>

**Announcements**

WG Chair reviewed attendance tool.

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

The March mtg. (this mtg.) will be entirely electronic (virtual).

WG Chair announced the use of DirectVoteLive (DVL) for all WG votes. DVL will only be used during this session and at the closing plenary meeting on Wednesday, 16 March. 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), and Secretary (Clint Powell) by the end of EV2 on Tues. 3/15 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 Phil Beecher beforehand.

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

## 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.

WG Chair went through the agenda.

## WG Approvals

Ben Rolfe (Blind Creek Associates) moved to *approve the agenda (document# 15-22-0105-03-0000)* with Clint Chaplin (Samsung Research America) seconding the motion. Following no objection, the agenda was approved.

Clint Powell WG Vice-Chair (Meta) moved *to approve the previous meeting minutes (document 15-22-0010-02-0000)* and Clint Chaplin (Samsung Research America) seconded the motion. Following neither discussion nor objection the minutes were approved. There were no matters resulting from the previous minutes.

## May Wireless Interim

May 2022 Wireless Interim will be a hybrid (face-2-face + virtual).

## Elections

March 2022 is the last session for existing WG officers. WG chair is requesting that anybody wishing to serve as a WG officer must be nominated and submitted to existing officers to be included in the election. As per 802 P&P "WG Chairs, WG Vice Chairs, Appointed Sponsor Officers, and Appointed Sponsor Non-Voting Members are all confirmed by the Sponsor. Any individual who would like to run for one of these positions or anticipates being appointed to one, will be required to submit a letter of endorsement signed by both the Sponsor member and "an individual who has management responsibility for the Sponsor member" prior to a confirmation vote. "

Nominations closed on March 1, 2022.

## General and Administrative

WG Chair presented the general meeting information:

* IMAT will be used for attendance
	+ 75% Attendance = 12 time slots (any 12 of the 31)
* Voters: (voters: 129, nearly: 24, aspirant: 21)
* There were 88 attendees at this point of the 802.15 Opening Plenary
* Webex will be used for all sessions

Ben Rolfe (BCA) gave the treasurers report *(document: WG treasurers report verbal)*

* Still no income currently
* Continue to have some expenses
* May (Interim) Mtg. Fees
	+ a $950 early registration fee through April 8th
	+ a $1200 registration fee after April 8th and through April 29th
	+ a $1500 registration fee after April 30th
	+ Registration will open soon
* Sept. (Interim) Expected Fees
	+ ~ $850 early/$1100 reg./$1350 late - if In Person (+$300 if not staying in mtg. hotel)
	+ ~ $950/$1450 - if Mixed Mode
* Current balance is ~ the same as last mtg. ($387,727.87) + any influx from the Jan. Mtg.

802 Wireless is targeting it’s next face-to-face meeting for the May 2022 Mtg. and it will be a hybrid mtg.

The Jan. 802.15 CAC meeting minutes are included in the WG minutes
*(minutes: 15-22-0137-xx-0000* – this doc.*)*

The Wireless Chairs Steering Committee meeting minutes are contained in
*(minutes: ec-22-0060-00-WCSG)*

## 802.15 WG Nominations

Nominations received prior to the closing of nomination period are as follows:

WG Chair: Clint Powell

Motion to approve Clint Powell as 802.15 WG Chair upon the end of this session. Moved by Phil Beecher: Vote 52/0/2 (voters verified against roll)

WG 1st Vice Chair: Phil Beecher

Motion to approve Phil Beecher as 802.15 WG Vice-Chair upon the end of this session.

Moved by Clint Powell: Vote 39/0/2 (voters verified against roll)

WG 2nd Vice Chair: none

WG 3rd Vice Chair: none

WG Secretary: none

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

802.15 Status and Activities for the Week

* Task Group 15.3ma (2 sessions)
	+ Starting to hear presentations
* Standing Committee – THz (1 session)
	+ Work on 500 GHz fixed links and channel planning
* Task Group 15.4 Cor1 (2 sessions)
	+ Preparing to start standard association ballot (Sponsor Ballot), i.e. standard association pool, etc.
* Task Group 15.4aa – JRE (1 session)
	+ Working with IEEE editor on preparing draft for publication
* Task Group 4ab – NG-UWB (8 sessions + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Continue to hear presentations
* Task Group 6a – (DEP) (3 sessions + Joint 6a/4ab/14)
	+ Review PAR change
	+ Continue laying foundation for TG
* Task Group 7a – VAT (4 sessions)
	+ Continue work on draft
* Task Group 13 – Multi Gigabit/sec OWC (2 sessions)
	+ Working towards submitting standard to Revcom in July mtg.
* Task Group 14 – UWB-AHN (1 session + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Repeat Call for Officers
	+ Will continue conduct activity under TG .4ab, until enough interest/BW of participants is evident and TG Leadership roles are permanently filled
* Task Group 15 – NB-AHN (2 sessions + Joint 4ab/14/15)
	+ Repeat Call for Officers
* Task Group 16t – 802.16 Amendment (2 sessions)
	+ Continue to work on draft content
* Standing Committee – IETF (1 session)
	+ Will update on IETF activities
	+ Next IETF mtg. in Vienna, the week of March 21st
* Standing Committee – SC-M, Rules (2 sessions)
	+ Building list of issues, etc. to address during future revisions for 802.15.4
		- 802.15.4 will need another revision soon – should look at starting in July
	+ Template for submissions for SA Ballot Submissions
* Standing Committee – WNG (1 session)
	+ No requests for presentation received so far, will most likely cancel
* Joint 802.1/802.15 Mtg. (1 session)
	+ Will discuss MAC interface descriptions (to 802.1) for each of the 802.15 MACS

## Any Other Business

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

## WG Recess

**10:30 AM** WG Chair recessed the meeting

# 802.1 / 802.15 Joint Mtg.

# Monday, 14 March 2022

**11:07 AM** 802.1 WG Chair Glenn Parsons (Ericsson) and & 802.15 WG Vice-Chair Clint Powell (Meta) called the meeting to order

This activity is looking at 802.1 features/concepts that can be applied to the various 802.15 standards.

The meeting continued using the slides contained in
(doc. # 15-22-0171-01-0000)

A Joint 802.1/802.15 call will be held on Mon., April 10 (time TBD), where 802.15 TG13 will give an overview of the draft currently being balloted, to allow for a sanity check that there’s nothing being balloted that would prevent future alignment with 802.1 features/concepts.

The next Joint 802.1/802.15 Mtg. will be scheduled for the July 2022 802 Session - day and time TBD.

A link to detailed minutes taken by Jessy Rouyer (801.1) will be added here once posted, and a revision to this document will be posted.

## 802.1/802.15 Joint Session Adjourn

**12:35 PM** 802.1 Chair & 802.15 Vice-Chair adjourned the meeting

# 802.15 WG Closing

# Wednesday, 16 March 2022

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

**9:02 AM** WGChair spoke to the attendance method (IMAT) and voting method (DVL), please send any requests for changes to attendance to Ben Rolfe (BCA)

~ 71 participants on the call

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

## Announcements

## 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.

WG Chair went through the agenda.

## Straw Polls

STRAW POLLs for July 802 Plenary Session, July 10-15, 2022 Sheraton Le Centre, Montreal, Canada and May Interim Session, May 8-13, 2022 Warsaw Marriott, Poland
(anybody can vote)

1. If the 2022 July Plenary Session is held in Montreal, Canada as an in-person only session, will you attend? (59 on poll at time of straw poll)
* 24 - Yes
* 15 - No
* 9 - Abstain
* 11 - No answer
1. If the 2022 July Plenary Session is held in Montreal, Canada as a mixed-mode session, will you attend: (59 on poll at time of straw poll)
* 20 - Attend In-person
* 25 - Attend Virtually (remotely)
* 1 - Will not attend plenary
* 2 - No response
* 11 - No answer
1. If the 2022 May 802.15 Wireless Interim Session is scheduled to be held in Warsaw, Poland as a mixed mode session, will you attend? (59 on poll at time of straw poll)
* 14 - Attend In-person
* 28 - Attend Virtually (remotely)
* 4 - Will not attend interim
* 1 - No response
* 12 - No answer

## Closing Reports

**9:04 AM 802.15 WG** Closing Agenda by Pat Kinney (Kinney Consulting) (15-22-0105-03)

**10:25AM TG3ma** closing report by Thomas Kurner (TU Braunschweig) (15-22-0164-00)

Hear 4 proposals and reviewed timeline.

3 meetings requested for May session (early afternoon or later am)

**9:06 AM TG4 Cor1** closing report by Tero Kivinen (Self) (15-22-0141-01)

Completed WG letter ballot series.

***Motion:***802.15 has reviewed and requests unconditional approval from the EC to submit P802.15.4-2020-Cor1\_D04 to Standards Association ballot.

**Moved by:**Tero Kivinen (Self)+

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

46 out of 57 on DVL voted

Upon no discussion the vote was taken with the results of 44/0/2, motion carries.

***Motion:***Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the Standards Association balloting of the P802.15.4-2020-Cor1-D04 with the following membership: Tero Kivinen (Chair), Takashi Kuramochi, Hiroshi Harada and Jeng-Shiann Jiang. The 802.15.4-2020-Cor1 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 (Self)

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

49 out of 60 on DVL voted

Upon no discussion the vote was taken with the results of 46/0/3, motion carries.

2 meetings requested for May session

**9:25 AM TG4ab** closing report by Ben Rolfe (BCA/UWBA/et al.) (15-22-0197-01)

Heard many contributions (see TG4ab closing report for details). Reviewed process to getting to a ballotable draft and project timeline.

10 meetings requested for May session: 8 standalone + 1 joint w/.14, .15 + 1 joint w/.14, .6a

**9:30 AM TG6a** closing report by Ryuji Kohno (YNU/YRP-IAI) (15-22-0190-01)

Several presentations were heard. Re-reviewed motions to change project from an amendment to a revision.

***Motion:***Move that the PAR Withdraw contained in document [15-22-0067-00], be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR Withdraw to NesCom. The 802.15 working group chair and technical editor are authorized to make additional modifications to the PAR Withdraw as needed to reflect EC discussion at its closing meeting.

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

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

51 out of 63 on DVL voted

Upon no discussion the vote was taken with the results of 47/0/4, motion carries.

***Motion:***Request that the responses contained in document 15-22-0167-03-006a to comments from 802.1, 802.3 and 802.11 WGs concerning the P802.15.6 PAR Revision and CSD contained in documents 15-22-0088-00-006a and 15-22-00087-03-006a, respectively, be approved by the WG.  The 802.15 working group chair and technical editor are authorized to make additional modifications to the responses as needed.

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

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

49 out of 63 on DVL voted

Upon no discussion the vote was taken with the results of 40/0/9, motion carries.

***Motion:***Request that the PAR Revision and CSD contained in documents 15-22-0088-01-006a and 15-22-00087-03-006a, 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:**Ryuji Kohno (YNU/YRP-IAI)

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

51 out of 64 on DVL voted

Upon no discussion the vote was taken with the results of 42/1/7, motion carries.

4 meetings requested for May session: 3 standalone + 1 joint w/.4ab, .14

Prefer AM1 on Wed. 3/9, Fri. 3/11, Tues. 3/15, joint on Mon. 3/14 (AM1 preferred)

**9:45 AM TG7a** closing report by Yeong Min Jang (Kookmin University) (15-22-0196-00)

Working to seek WG approval to start 1st Letter Ballot in May.

4 meetings requested for May session (prefer AM0, followed by AM1, then EV2 on Wed., Thurs., Mon., Tues.)

**9:45 AM TG12** Pat Kinney (Kinney Consulting) (n/a)

***Motion:*** Move that the PAR Withdraw contained in document [15-22-0048-00], be approved by the IEEE 802.15 WG and that the EC be requested to forward the PAR Withdraw to NesCom. The 802.15 working group chair and technical editor are authorized to make additional modifications to the PAR Withdraw as needed to reflect EC discussion at its closing meeting.

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

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

45 out of 46 on DVL voted

Upon no discussion the vote was taken with the results of 44/0/1, motion carries.

**10:00 AM TG13** closing report by Volker Jungnickel (Fraunhofer HHI) (15-22-0185-01)

Worked on comment resolutions from SA ballot recircs, nearly complete. Once completed will prepare draft and recirc. Plan is to submit for approval to submit to RevCom in the July mtg.

***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\_D7 with the following membership: Volker Jungnickel as Chair, 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 (Fraunhofer HHI)

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

48 out of 64 on DVL voted

Upon no discussion the vote was taken with the results of 44/0/3, motion carries.

4 meetings requested for May session (AM0 preferred)

**10:10 AM TG14** closing report by Clint Powell, WG Vice-Chair (Meta) (15-22-0128-01)

Discussed next steps. Webinar on TG4ab, TG14, TG15 planned for April 20th and 21st.

Repeated call for TG14 officers, no one stepped forward. Clint continues as acting Chair of the TG until a permanent Chair is found.

3 meetings requested for May session: 1 standalone + 1 joint w/.4ab, .15 + 1 joint w/.4ab, .6a

**10:15AM TG15** closing report by Phil Beecher, WG Vice-Chair (Wi-SUN Alliance) (15-22-0149-01)

Discussed next steps. Webinar on TG4ab, TG14, TG15 planned for April 20th and 21st.

Repeated call for TG14 officers, no one stepped forward. Phil continues as acting Chair of the TG until a permanent Chair is found.

3 meetings requested for May session: 2 standalone + 1 joint w/.4ab, .14

**10:20 AM TG16t** closing report by Tim Godfrey (EPRI) (15-22-0195-01)

Updating SDD System Description Document. Reviewing initial text for sections of draft. Will continue to hear contributions.

3 meetings requested for May session (PM2 or PM1 on 1st and 2nd Tues.) (in person - PM on Tues., Wed., Thurs.)

**10:30 AM SC THz** closing report by Thomas Kurner (TU Braunschweig) (15-22-0165-00)

Heard 1 contribution.

1 meeting requested for May session (in person – early afternoon)

**10:35 AM SC IETF** closing report by Tero Kivinen (Self) (verbal rpt.)

Gave update of activities in IETF related to 802.15 and sessions to be held in upcoming IETF mtg. in Vienna next week.

1 meeting requested for May session. (in person - early afternoon)

**10:37 AM SC WNG** no closing report by Ben Rolfe (BCA/UWBA)

No mtgs. this session, no minutes will be posted

1 meeting requested for May session.

**10:25 AM SC MAINT, Rules** closing report by Phil Beecher (Wi-SUN Alliance) (15-22-0138-01)

Developed TG/WG presentation slide set to be used for SA ballot presentation to EC.

Reviewed example motions in 802.15 operations manual and identified a few that need to be added. Will work on developing a PAR for a 15.4 Revision during the May session, that will be submitted at the July Session.

3 meetings requested for May session.

**10:32 AM Joint** **802.1/802.15** Liaison verbal report by Clint Powell (Meta) (see below in these minutes)

Developed and reviewed 802.15 MAC table feature support for 802.1. TG13 will give presentation during an April 11th Joint 802.1/802.15 call.

1 meeting requested for May session.

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

Continued work on white papers. Single meeting will occur in May.

**10:35 AM 802.18** Liaison report by Jay Holcomb (Itron) (15-22-0118-00)

Discussed activities in the following forums/regions:

* ETSI, ETSI-ERM - looking to extend UWB band above 8.5 GHz, CEPT (UWB), APAC

Recent consultations / activities:

* UK-Ofcom on sharing in upper 6 GHz band
* Canada has 2: >95 GHz and 5.9 GHz
* UK-Ofcom also on what is needed for mobile markets and mobile data moving forward
* Japan-MIC: recommendation on technical conditions for 6 GHz WLAN

FCC Notice of Inquiry Heads Up

* USA FCC Chairwoman announced last week that coming soon will be a Notice of Inquiry to explore receiver performance
* The EU RED (Radio equipment Directive already has receiver performance and current ETSI standards are adding this
* How the FCC approaches this, including w.r.t. ETSI, should be monitor closely by IEEE 802

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

Will continue to work on the frequency table with 802.18 that is currently being circulated for comment collection from the 802.15 WG’s.

**10:45 AM 802.11** Liaison report by n/a

NTR

## Review of May Wireless Hybrid Interim Meeting Plans

WG Chair reviewed the May 802 Wireless Electronic Interim Session Dates:
to be held 5/6 - 5/19

* Registration Fees for the May Mtg. for in person and remote attendees are as follows:
	+ $400 early registration fee through April 8th
	+ $600 registration fee April 9th through April 29th
	+ $800 registration fee after April 29th

Late fees are as follows:

* + full refund through April 8th
	+ $150 penalty April 9th - April 29th
	+ no refund after April 29th

Registration will open shortly

* 802.15 WG will hold its Sessions Tues., May 10 - Wed., May 18, 2022
* 802.15 CAC (a.k.a. Chairs Advisory Committee):
	+ Wed., May 4, 10:00 am - 12:00 pm, Eastern
* Future 802 WCSC (Wireless Chairs Standing Committee) will occur:
	+ March 23 (Wed.), 4-5 pm Eastern (emergency mtg. to vote on May Interim)
	+ April 6 (Wed.), 2-4 pm Eastern
	+ May 4 (Wed.), 2-4 am Eastern
	+ June 1 (Wed.), 3-4:30 pm Eastern
	+ July 6 (Wed.), 3-4:30 pm Eastern
	+ Aug. 3 (Wed.), 3-4:30 pm Eastern
	+ Sept. 9 (Wed.), 3-4:30 pm Eastern
	+ Oct. 5 (Wed.), 3-4:30 pm Eastern
	+ Nov. 2 (Wed.), 3-4:30 pm Eastern
	+ Dec. 7 (Wed.), 3-4:30 pm Eastern

## AOB

Ben Rolfe (BCA) gave an updated treasurer’s report *(document #: ec-22-0031-00)*





Pat Kinney (802.15 Work Group Chair) thanked everyone for their support over the past 18 months as WG Chair and prior to that as WG Vice-Chair, Secretary, and numerous TG Chair roles. Many participants thanked Pat for his leadership throughout the meeting. Pat’s leadership presence will be greatly missed, and his grandkid’s gain will be 802.15’s loss.

This meeting also marks the departure of Rick Alfvin (802.15 WG Vice-Chair) who served in an 802.15 leadership capacity role for many years. Some of his fondest meetings are sure to include the July 2013 Geneva Mtg. and the Nov. 2019 Waikoloa Mtg 😉. The impact of Ricks departure from a leadership capacity will be greatly felt by 802.15.

## WG Adjourn

**11:07 AM** Upon hearing no objections, the WG Chair Pat Kinney adjourned the meeting for the
last time as the WG Chair and an 802.15 WG or TG Officer (for now…).

# Annex A Virtual attendance = 130

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Aldana | Carlos | Facebook |
| Almholt | Thomas | Texas Instruments Inc. |
| Amezawa | Yasuharu | Mobile Techno Corp. |
| Andre | Jean-Marie | ST micro |
| Au | Kwok Shum | Huawei Technologies Co., Ltd |
| Bahn | Christy | IEEE STAFF |
| Bansal | Ankur | SAMSUNG |
| Barras | David | 3db Access AG |
| Baykas | Tuncer | Kadir Has University |
| Beecher | Philip E | Wi-SUN Alliance |
| Berens | Friedbert | FBConsulting Sarl |
| Bettesh | Ido | Apple Inc. |
| Bhatia | Bharat | 3db Access AG |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Calvert | Chris | Landis Gyr Group Worldwide |
| Chaplin | Clint | Self |
| Chen | Run | New Radio Technology Co., Ltd. |
| Choi | Junyoung | Samsung Electronics Co., Ltd. |
| Clanney | Nathan | Siemens Mobility, Inc. |
| Connerley | Royce | Union Pacific Railroad |
| Danev | Boris | 3db Access AG |
| da Silva | Claudio | Meta Platforms, Inc. |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | Qorvo |
| Du | Rui | Huawei Technologies Co., Ltd |
| Du | Zhenguo | Huawei Technologies Co., Ltd |
| Ekrem | Ersen | Apple, Inc. |
| Gan | Ming | Huawei Technologies Co., Ltd |
| Ghosh | Chittabrata | Facebook, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Golshan | Robert | Apple, Inc. |
| Granhaug | Kristian | novelda |
| Grosswindhager | Bernhard | NXP Semiconductors |
| Guo | Ziyang | Huawei Technologies Co., Ltd |
| Ha | Taeyoung | Samsung Electronics Co., Ltd. |
| Han | Chong | pureLiFi |
| Hernandez | Marco | National Institute of Info. and Comms. Tech. (NICT) |
| Hett | Christopher | Landis Gyr Group Worldwide |
| Hirata | Masayuki | Osaka Univ. Grad. School of Med., Dept of Neurological Diag. & Rest. |
| Holcomb | Jay | Itron Inc. |
| Hosako | Iwao | National Institute of Info. and Comms. Tech. (NICT) |
| Hu | Chunyu | Facebook |
| Ikegami | Tetsushi | Meiji University |
| Jiang | Jeng-Shiann | Vertexcom Technologies |
| Jiang | Jinjing | Apple Inc. |
| 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. Tech. (NICT) |
| Kashiwagi | Yoshio | Nissin Systems |
| Keren | Rani | Huawei Technologies Co., Ltd |
| Kerry | Stuart | OK-Brit; Self |
| 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 |
| Krieger | Ann | US Department of Defense |
| Kuechler | Wolfgang | NXP Semiconductors |
| Kuerner | Thomas | TU Braunschweig |
| Kuramochi | Takashi | Lapis Technology |
| Lee | Mingyu | Samsung Electronics Co., Ltd. |
| Lemsitzer | Stefan | NXP Semiconductors |
| Leong | Frank | NXP Semiconductors |
| Li | Huan-Bang | National Institute of Info. and Comms. Tech. (NICT) |
| Lim | Sang-Kyu | Electronics and Telecommunications Research Institute (ETRI) |
| Lin | Wei | Huawei Technologies Co., Ltd |
| Liu | Chenchen | Huawei Technologies Co., Ltd |
| Liu | Peng | Huawei Technologies Co., Ltd |
| Liu | Yong | Apple, Inc. |
| Liu | Ziqi | Vivo Mobile Communication Co.ltd |
| Ma | Yongsen | Redpoint Positioning |
| Mani | Santhosh Kumar | Apple, Inc. |
| Mariappan | Vinayagam | SMR Automotive Modules Korea Ltd |
| Mirfakhraei | Khashayar |  |
| Murray | Carl | Qorvo |
| Nabki | Frederic | SPARK Microsystems |
| Neirynck | Dries | novelda |
| Niewczas | Jaroslaw | Qorvo |
| Nikolich | Paul | Self, HPE, Huawei, Wyebot, UNH BCoE, YAS BBV, Origin Wireless |
| Pakrooh | Pooria | Qualcomm Technologies, Inc. |
| Palmer | Clark | Meteorcomm LLC |
| Paudyal | Bivesh | TTCI |
| Peng | Xiaohui | Huawei Technologies Co., Ltd |
| Pirhonen | Riku | NXP Semiconductors |
| Powell | Clinton | Powell Wireless Consulting, LLC |
| Qian | Bin | Huawei Technologies Co., Ltd |
| Rahmani | Mohammad | SPARK Microsystems |
| Rantala | Enrico-Henrik | Zeku |
| Redlich | Oded | Huawei Technologies Co., Ltd |
| Robert | Joerg | TU Ilmenau/Fraunhofer IIS |
| Rolfe | Benjamin | Blind Creek Associates |
| Saito | Hiroki | ARIS Inc. |
| Sand | Stephan | German Aerospace Center (DLR) |
| Sasaki | Shigenobu | Niigata University |
| Sayrafian | Kamran | National Institute of Standards and Technology |
| Segev | Jonathan | Intel corporation |
| Sekine | Norihiko | National Institute of Info. and Comms. Tech. (NICT) |
| Serang | Daoud | CML Microcircuits |
| Shah | Kunal | Apple Inc. |
| Shah | Tushar | Apple, Inc. |
| Shahar | Menashe | Ondas Networks |
| Shellhammer | Stephen | Qualcomm Incorporated |
| Shilo | Shimi | Huawei Technologies Co., Ltd; Toga Networks, a Huawei company |
| Simpson | Guy | Ondas Networks |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Itron Inc. |
| Sun | Li | Huawei Technologies Co., Ltd |
| Suzuki | Takafumi | National Institute of Info. and Comms. Tech. (NICT) |
| Tian | Bin | Qualcomm Incorporated |
| Verma | Lochan | Apple, Inc. |
| Verso | Billy | Qorvo |
| Wang | Yi | Huawei Technologies Co., Ltd |
| Wang | Yi-Hsiu | Zeku |
| Wisland | Dag | Novelda AS; University of Oslo |
| Wu | Kuan | Huawei Technologies Co., Ltd; Huawei Technologies Co., Ltd |
| Xiao | Libra | NewRadio Technology Co., Ltd. |
| Yang | Shang-Te | Apple, Inc. |
| Yang | Xun | Huawei Technologies Co., Ltd |
| Yee | Zhenzhen | Red Point Positioning |
| Yee | Peter | NSA-CSD |
| Yong | Su Khiong | Apple, Inc. |
| Yoon | Kangjin | Meta |
| Zeisberg | Sven | ZIGPOS GmbH |
| Zou | Qiyue | Facebook |

# 802.15 CAC Mtg.

# Wednesday, 2 March 2022

## Attendance

Rick Alfvin

Tim Godfrey

Marco Hernandez

Jay Holcomb

Volker Jungnickel

Pat Kinney

Tero Kivinen

Ryuji Kohno

Takashi Kuramochi

Thomas Kurner

Clint Powell

Ben Rolfe

Gary Stuebing

## Minutes

* WG Chair, Pat Kinney (Kinney Consulting) called the mtg. to order at 10:05 am
* 802.15 WG March Agenda is now at r1:

<https://mentor.ieee.org/802.15/documents?is_dcn=6&is_year=2022>

* Attendance for 802.15 in the March Plenary is as follows
* For the March Plenary the following 16 time slots are defined as required:
	+ AM1, AM2, PM1
		- 3/8-3/10, 3/14-3/15
	+ AM1
		- 3/16
* The remaining time slots are deemed extra credit, and all (required and extra credit) will be counted towards the 12 minimum needed
* To meet the 75% attendance requirement, attendance would be needed at any 12 (required and or extra credit) time slots
* Voting will again be done using DirectVoteLive (DVL) in the closing plenary
* Motions are due to Chair by the end of the EV1 time slot on Tues. March 15th
* May Wireless Interim Session Update
	+ There may be polls w.r.t. the May Wireless Interim – TBD later today on WCSC
	+ Fees for the mtg. have yet to be established
* March Plenary Sessions
* 802.15 CAC Mtg. was held 10am - 12 pm EST on Wed. 3/2
* 802 LMSC (EC) Opening Mtg. will be held 3-5 pm EST on Fri. 3/4
* Opening 802.15 WG Mtg. will be held 9-11 am EST on Tues. 3/8
* Closing 802.15 WG Mtg. will be held 9-11 am EST on Wed. 3/16
* 802 LMSC (EC) Closing Mtg. will be held 2-6 pm EST on Fri. 3/18
* Three PARs will be presented by the 802.15 WG at the 802 EC closing
* Two from TG6a
* One from TG3ma
* Wireless Chairs Mtg. will be held 2-4 pm EST on Wed. 3/2

<https://mentor.ieee.org/802-ec/dcn/22/ec-22-0049-00-00EC-2022-march-wcsc-report.pptx>

* 802.15 WG Officer Election Nominations
* Nomination Status as of call:
	+ Self nomination received from Clint Powell for 802.15 WG Chair
	+ Self nomination received from Phil Beecher for 802.15 WG Vice Chair of Technology
* No nominations yet received for:
	+ Second 802.15 WG Vice Chair
	+ 802.15 WG Secretary
* In light of the lack of nominations for the WG 2nd Vice Chair and the WG Secretary the chair will continue to accept nominations, and affirm them during the 802.15 WG session
* Subgroup Status and Objectives for March Plenary
* IEEE coordinated Workshop on TG4ab, TG14, TG15
	+ Preparation continues – presenters, title, abstract, and dates confirmed
	+ Dates:
		- Wed. 4/20, afternoon Pacific time: Live Session (recorded) + Live Q&A
		- Thurs. 4/21, evening Pacific time: Playback of 4/20 recording + Live Q&A
* Joint 802.1/802.15 Activity
	+ 1 mtg
	+ Begin discussing the different 802.15 MAC interfaces to 802.1
* TG3ma
	+ 2 mtgs
* TG4 2020 Cor1
	+ 2 mtgs
	+ Need to setup Sponsor Ballot pool
* TG4ab NG-UWB
	+ 7 mtgs + 1 Joint w/.14, .15 + 1 Joint w/.6a, .14
	+ Working on contributions
* TG6a ED-BAN
	+ 3 mtgs + 1 Joint w/.4ab, .14
	+ Will need to work on responses to PARs review comments from 802
		- Withdrawal
		- Change from amendment to revision
* TG7a OCC
	+ 4 mtgs
* TG13 OWC
	+ 4 mtgs
	+ Finish resolving (9) open comments from recent ballot
* TG14 UWB-AHN
	+ 1 mtg + 1 Joint w/.4ab, .15 + 1 Joint w/.6a, .15
	+ Issue another call for officers
* TG15 NB-AHN
	+ 2 mtgs + 1 Joint w/.4ab, .14
	+ Issue another call for officers
	+ Discuss potential .12 material to pull into .15
* TG16t Lic-NB
	+ 2 mtgs
	+ Continue working on use cases
* SC THz
	+ 1 mtg
* SC WNG
	+ 1 mtg
	+ TG12 presentation on what’s happening
* SC IETF
	+ 1 mtg
* SC Main
	+ 2 mtgs
	+ Will circle back to catch any unfinished items on the WG P&P and templates
* 802.15 May Wireless Interim Session will be Hybrid

**CAC Adjourn**

* WG Chair adjourned the mtg. at 11:05 am