**IEEE 802.15**

**Wireless Specialty Networks (WSN)**

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| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Specialty Networks (WSN) |
| Title | **802.15 WG & CAC Minutes Virtual May Interim 2022** |
| Date Submitted | [20 May 2022]  |
| Source | [Clint Powell][Meta][Chandler, AZ][Phil Beecher][Wi-SUN Alliance][Ben Rolfe][Blind Creek Associates] | Voice: [+1.480.586.8457]Fax: [--]email: [cpowell@ieee.org]email: [pbeecher@wi-sun.org]email: [ben@blindcreek.com] |
| Re: | [May 802.15 Interim 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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**137th IEEE 802.15 WSN MEETING**

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

**May 10-18, 2022**

# 802.15 WG Opening

# Tuesday, 10 May 2022

**9:04 AM** WG Chair, Clint Powell (Meta), called the meeting to order and opened the WG Agenda (*15-22-0226-01-0000*)

<https://mentor.ieee.org/802.15/documents?is_dcn=226&is_year=2022>

**Announcements**

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

WG Chair reviewed attendance tool.

The May 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 (Clint Powell), and Vice-Chair (Phil Beecher) 1 hour after the close of your last mtg. 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

Clint Chaplin (Samsung Research America) moved to *approve the agenda (document# 15-22-0226-01-0000)* with Ben Rolfe (Blind Creek Associates) seconding the motion. Following no objection, the agenda was approved.

Phil Beecher WG Vice-Chair (Wi-SUN Alliance) moved *to approve the previous meeting minutes (document 15-22-0137-03-0000)* and Tim Godfrey (EPRI) 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 Chair presented the general meeting information:

* IMAT will be used for attendance
	+ 75% Attendance = 12 time slots (any 12 of the 28)
* Voters: (voters: 139, nearly: 12, aspirant: 24)
* There were 72 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: EC document EC-22/0076r1)*

* Describes Slide 4 – January meeting budget
* Slide 6 shows good surplus, needed for costs of future mixed-mode sessions.
* Slide 7 shows 802.11 / 802.15 Joint Accounts.
* July Plenary Mtg. Fees - a Mixed Mode mtg.
	+ a $500 early registration fee through May 20th
	+ a $700 registration fee after May 21st and through June 24th
	+ a $900 registration fee after June 24th
	+ Registration is open
* Sept 2022 (Interim) Expected Fees - a Mixed Mode mtg.
	+ ~ $950 early/$1200 reg./$1450 late
* Current balance is ~ $391,905.30

802 Wireless is targeting it’s next face-to-face Session for the Sept. 2022. and it will be a hybrid session.

The May 802.15 CAC meeting minutes are included in the WG minutes
*(minutes: 15-22-0233-xx-0000* – this doc.*)*

The Wireless Chairs Steering Committee meeting minutes are contained in
*(minutes: ec-22-0100-00-WCSG)*

Clint shows 802.15.-22-0229-02 WG Opening report– and describes the 802.15 WG standards status.

Clint shows the July 2022 Meeting graphic 15-22-0232-01-000.

## July Plenary Attendance Poll

July 2022 Plenary will be a hybrid (face-2-face + virtual)

* Informal attendance poll
	+ # in-person attendance ~ 20 people
	+ # virtual attendance ~ 12 people
	+ # poll size - 73 people in the meeting

## Status Reports (Goals/Objectives for the Week)

802.15 Status and Activities Planned for the Week

* Task Group 15.3ma (3 meetings)
	+ Begin work on editing r0 of draft
	+ Affirm technical editor
	+ Hear and discuss presentation
* Standing Committee – THz (1 meeting)
	+ Hear 1 presentation
* Task Group 15.4 Cor1 (2 meetings)
	+ SA Ballot comment resolution, initial ballot closes 5/12 closing, expect 1 more recirc
	+ Preparing for Revcom.
* Task Group 4ab – NG-UWB (8 meetings + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Continue Technical discussions
	+ Hear and discuss presentations
	+ Opening report is 15-22-0216
* Task Group 6a – (ED-BAN) (3 meetings + Joint 6a/4ab/14)
	+ Shows 15-22-0221-01
	+ Hear and discuss presentations – details on Slide 14
	+ Review NesCom Comment responses
* Task Group 7a – OCC (4 meetings)
	+ Working on baseline draft - Finalize (D2) for Letter Ballot
* Task Group 13 – Multi Gigabit/sec OWC (4 meetings)
	+ Voler shows 15-22-0230-01-0013
	+ SA Ballot comment resolution, resolving comments from 2nd recirc
	+ Target going to Revcom after July mtg.
* Task Group 14 – UWB-AHN (1 Joint w/ TG15 + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Repeat Call for Officers
	+ Joint mtgs w/4ab & 6a reviewing channel models
	+ Will merge .14 and .15 mtg. to 1 mtg. reporting on webinar
* Task Group 15 – NB-AHN (1 Joint w/ TG14 + Joint 4ab/14/15)
	+ Repeat Call for Officers
	+ Will merge .14 and .15 mtg. to 1 mtg. reporting on webinar
* Task Group 16t – 802.16 Lic-NB Amendment (2 meetings)
	+ Initiate draft development, call for contributions to Draft
	+ Currently no contributions
* Joint 802.1/802.15 Mtg. (1 meeting)
	+ 802.13 feedback on comments from April 802.1/802.15 joint Presentations
	+ Update to 802.1 features matrix and associate text
	+ Discuss plans for moving ahead
* Standing Committee – IETF (1 meeting)
	+ Discuss IETF activities
* Standing Committee – SC-M, Rules (3 meetings)
	+ Review any change requests for the Operations Manual
	+ Work on any templates
	+ Draft 802.15.4 Revision PAR, target submitting for 802 EC approval at July mtg.
* Standing Committee – WNG (1 meeting)
	+ Possible topics:
		- Discuss submission of 802.15 stds to ISO JTC1
		- Possible other presentation, t.b.a.

## July 802 Hybrid Plenary Mtg. Info

802.15 WG will hold its mixed mode plenary session from July 10-15, 2022 with the in-person part being held at the Le Centre Sheraton Montreal.

The 802.15 CAC for the July Plenary will be held at the Le Centre Sheraton Montreal on Sun July 10, 2022, at 5:30pm local time

802 July Plenary Registration Fees & Deadlines have been set at $500 for registration on or before 20 May, $700 on or before 24 June, and $900 after 24 June.

Every single mtg. requires a Vice-Chair or other designated person to run audio portion of virtual mtg.

* A 2nd computer will work best (hotel or 802 will not supply this, to be brought by designee)
* Training on tool will be provided before and possibly at the July mtg. as well
* All TG and SC Chairs identify this person this week and send info to Clint & Phil
* All TG and SC Chairs please inform if neither they or any Vice-Chair will be attending in person this week and send info to Clint & Phil

## Any Other Business

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

## WG Recess

**10:28 AM** WG Chair recessed the meeting

# 802.1 / 802.15 Joint Mtg.

# Wednesday, 11 May 2022

**11:07 AM** 802.15 WG Chair Clint Powell (Meta) and 802.1 WG Chair Glenn Parsons (Ericsson) 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. # 15-22-0273-01-0000)

~110 attendees joined during the call

Agenda

1. Intro, reminders, agenda approval
2. 802.15.13 Response
	1. Feedback on the 4 topical items captured in April Joint 802.1/802.15 mtg.
	2. Feedback on overall disposition
3. 802.1 and 802.15 compatibility
	1. Update of table mapping of 802.1 feature to 802.15 projects
	2. Discussion of general compatibility opportunities
4. Next Mtg
5. AOB

* No response to call patent/patent claims
* Agenda approved unanimously
* < 90 participants on the call
* Kai Lennert Bober (Fraunhofer HHI) presented doc. # 15-22-0271-03-0013 on the following:
	+ Topic # 1

Question raised w.r.t. supporting EtherType only, vs. Length/Type so that an LLC can be encoded re: bridging and routing protocols (e.g. spanning tree, IS-IS) using LLC encoding vs. newer protocols using EtherType encoding. May need to support both encodings vs. only the latter. Bridges may interconnect two 802.15.3 links.

* Gave response/sol'n. - no objections heard
* Topic # 2

Question raised w.r.t. handling 802.15.4 multicast addresses, if assumed every address is treated as unicast. For inner addresses, suggestion to treat group addresses as broadcast rather than as unicast addresses.

* Gave response/sol'n. - no objections heard
* Topic # 3 -

TSN is a lot of tools - not all are required, many separate tools.

What capabilities of TSN are beneficial to 802.15.13? Answering this would help 802.1 participants answer the previous question.

* Looked at some functional areas of TSN
	+ Time synchronization - this can be accomplished (over the top), providing the 802.15.13 MD-SAP interface maps to 802.1, implemented in an amendment to 802.1ac, ideally with someone from 802.15.13 as the editor
	+ Bounded low latency -
	+ High availability / Ultra availability - this can be accomplished (over the top as well)
	+ Dedicated resources & API - can be accomplished via setting of parameter ranges
* Topic # 4

What in 802.3 TDMA PON have already been addressed, that can be applied - i.e. a solution may already exist.

* Not yet investigated in depth. IEEE 802.3 is complex.
* Identified one point – transit time through the network may need to be bounded.
* Under further investigation
* Assumed Networking Performance

Looks like probably most wireless networks may not be able to reach highest performance characteristics by design

* Ben Rolfe (Blind Creek Associates) gave an update on the 802.1 802.15 compatibility in general and the capabilities mapping table

* Before EOM in May 802.15 will hold an internal call w/TG3ma, TG6a, TG7a, TG16t to discuss the mapping table and items to prepare for July joint mtg. w/802.1 in Montreal

* Next Joint mtg. w/ 802.1 at July 802 Plenary in Montreal
	+ Proposal from 802.15 is Tues. 7/12 from 6:30 - 7:30pm
	+ 802.1 leadership will discuss and confirm at their next mtg.

## 802.1/802.15 Joint Session Adjourn

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

# 802.15 WG Closing

# Wednesday, 18 May 2022

**9:01 AM** WG Chair, Clint Powell (Meta) 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 Phil Beecher (Wi-SUN Alliance)

~ 56 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.

## Closing Reports

**9:04 AM 802.15 WG** Closing Agenda by Clint Powell (Meta) (15-22-0226-01)

**9:14 AM TG16t** closing report by Tim Godfrey (EPRI) (15-22-0231-01)

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

3 meetings requested for July session (Preference is PM on Tues., Wed., Thurs.)

**09:17 AM 802.24** Liaison verbal report by Tim Godfrey (EPRI) (verbal rpt.)

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

**09:20AM TG3ma** closing report by Thomas Kurner (TU Braunschweig) (15-22-290-01)

Hear 4 proposals and reviewed timeline.

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

**09:23 AM SC THz** closing report by Thomas Kurner (TU Braunschweig) (15-22-302-00)

Heard 1 contribution.

1 meeting requested for July session (in person – early morning preferred)

**09:25 AM TG4 Cor1** closing report by Tero Kivinen (Self) (15-22-0252-01)

Completed WG letter ballot series.

***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-D05 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:** Benjamin Rolfe (BCA)

33 out of 34 on DVL voted

Upon no discussion the vote was taken with the results of 32/0/1, motion carries.

***Motion:***WG Motion: Move that 802.15 WG start a Standards Association Recirculation Ballot of document P802.15.4-2020-Cor1-D05.

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

**Seconded by:** Benjamin Rolfe (BCA)

35 out of 37 on DVL voted

Upon no discussion the vote was taken with the results of 34/0/1, motion carries.

1 or 2 meetings requested for July session depending on recirculation ballot outcome.

**09:29 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 July session. (in person - early afternoon)

**09:30 AM TG6a** closing report by Ryuji Kohno (YNU/YRP-IAI) (15-22-0300-00)

Several presentations were heard.

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

**09:35 AM TG4ab** closing report by Ben Rolfe (BCA/UWBA/et al.) (15-22-310-01)

Heard many contributions (see TG4ab closing report for details). Reviewed process to getting to a ballotable draft and project timeline. Very good progress converging technical areas.

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

**09:40 AM TG7a** closing report by Yeong Min Jang (Kookmin University) (15-22-0306-00)

Working to start 1st Letter Ballot in July.

3 meetings requested for July session (prefer PM1 mon, AM1 Tue and AM1 Wed)

**09:45 AM TG13** closing report by Volker Jungnickel (Fraunhofer HHI) (15-22-0309-02)

2 new vice chairs confirmed. Worked on comment resolutions from SA ballot recircs, nearly complete (1 remaining). Once completed will prepare draft and recirc. Plan is to submit for EC approval to submit to RevCom in the July EC 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:**Benjamin Rolfe (BCA)

37 out of 41 on DVL voted

Upon no discussion the vote was taken with the results of 34/0/3, motion carries~~.~~

Poll: in person 4 virtual 2 total in TG for poll 14

4 meetings requested for May session (AM preferred) plus 1 joint with 802.1.

**10:07AM TG14/TG15** combined closing report by Phil Beecher, WG Vice-Chair (Wi-SUN Alliance) (15-22-0249-01)

Discussed next steps. Webinar on TG4ab, TG14, TG15 completed on 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.

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

**10:12 AM Joint** **802.1/802.15** Liaison verbal report by Clint Powell (Meta)
(see above WG closing for Joint 802.1/802.15 minutes)

Reviewed the progress by TG13 and 802.1.

Reviewed 802.15 MAC table feature support for 802.1.

1 meeting requested for July session.

**10:15 AM SC MAINT, Rules** closing report by Phil Beecher (Wi-SUN Alliance) (15-22-0241-01)

Worked on 802.15.4 revision PAR which is ready for review and submission to EC during July Session.

***Motion:*** WG Motion: Move that the PAR contained in document [15-22-0259-03-0mag-802-15-4-revision-draft-par], 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:** Phil Beecher (Wi-Sun Alliance)

**Second by:** Benjamin Rolfe (BCA)

29 out of 41 on DVL voted

Upon no discussion the vote was taken with the results of 29/0/0, motion carries~~.~~

3 meetings requested for May session.

**10:21 AM SC WNG** Verbal closing report by Ben Rolfe (BCA/UWBA)

1 meeting, 2 topics, 2 actions. First on PSDO process (see motion). Second on the potential for liaison statement regarding Radio Access Technology decision in Korea.

***Motion:*** Move that pending the outcome of counsel with the 802 ISO/IEC Liaison, the IEEE 802.15 WG requests that IEEE 802 EC submit IEEE Std 802.15.4 and approved amendments, IEEE Std 802.15.3 and approved amendments, and IEEE Std 802.15.9 to ISO/IEC JTC1 SC6 for adoption under the PSDO agreement.

**Moved by:** Benjamin Rolfe (BCA)

**Second by:** Phil Beecher (Wi-SUN)

31 out of 43 on DVL voted

Following brief discussion, the vote was taken with the results of 31/0/0, motion carries.

1 meeting requested for July session.

**10:29 AM 802.18 RRTAG** Liaison report by Edward Au (Huawei) (15-22-0208-00)

Leadership changes: New chair (Edward) and new Secretary (Amelia)

Discussed ongoing activities, which are contained in 18-22-0035 is the status of ongoing regulatory consultations and 18-22-0036 which contains compendium of TAG motions.

It is noted that 18-22-0035 contains timelines for submission preparation, including the regulatory body submission date and the RRTAG deadlines to be able to complete and approve a submission.

**10:40 WG Straw Poll** on attendance for the July plenary: Poll taken (taken via. show of hands on Webex):

Attend in person: 18

Attend via virtual: 13

Not planning to attend: 1

**10:46 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.

**10:47 AM 802.11** Liaison report by Edward Au (Huawei):

Two new topic interest groups being formed:

* AI and ML related to WLAN
* IoT topic interest group, ultra low power IoT

## Review of Future Meeting Plans

WG Chair reviewed the July 2022 802 Hybrid Plenary Session Dates:
Sun., July 10 - Fri., July 15 at the Le Centre Sheraton Montreal

* 802.15 WG will hold its Sessions Sun., July 10 - Thurs., July 14
* 802 WCSC (a.k.a. Wireless Chairs Steering Committee):
	+ Sun., July 10, 4:00 pm - 5:30 pm, local time
* 802.15 CAC (a.k.a. Chairs Advisory Committee):
	+ Sun., July 10, 5:30 pm - 6:30 pm, local time
	+ Wed., July 13, 7:30 am - 8:00 am, local time
* Registration early bird fees increase after 20-May, so register soon!

WG Chair reviewed the September 2022 802 Hybrid Wireless Interim Session Dates:
Sun., Sept. 11 - Fri., Sept. 16 at the Hilton Waikoloa

* 802.15 WG will hold its Sessions Sun., Sept. 11 - Thurs., Sept. 15
* 802 WCSC (a.k.a. Wireless Chairs Steering Committee):
	+ Sun., Sept. 11, 4:00 pm - 5:30 pm, local time
* 802.15 CAC (a.k.a. Chairs Advisory Committee):
	+ Sun., Sept. 11, 5:30 pm - 6:30 pm, local time
	+ Wed., Sept. 14, 7:30 am - 8:00 am, local time
* Registration early bird. fees increase after 30-June, so register soon!

Future 802 WCSC (Wireless Chairs Standing Committee) will occur:

* + 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

None heard

## WG Adjourn

**10:54 AM** Upon hearing no objections, the WG Chair Clint Powell adjourned the meeting

# Annex A Virtual attendance = 137

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| Adakeja | Olubukola | Teradyne, Inc. |
| Akhavan | Koorosh | Qualcomm Incorporated |
| Aldana | Carlos | Facebook |
| Al-kadi | Ghiath | NXP Semiconductors |
| Amalladinne | Vamsi | Qualcomm Incorporated |
| Amezawa | Yasuharu | Mobile Techno Corp. |
| Andre | Jean-Marie | ST micro |
| Anzai | Daisuke | Nagoya Institute of Technology |
| Au | Kwok Shum | Huawei Technologies Co., Ltd |
| Bahn | Christy | IEEE STAFF |
| Bansal | Ankur | SAMSUNG ELECTRONICS |
| Barras | David | 3db Access AG |
| Baykas | Tuncer | Kadir Has University |
| Beecher | Philip E | Wi-SUN Alliance |
| Berkema | Alan | HP Inc. |
| Bettesh | Ido | Apple Inc. |
| Bierschenk | Jens | Robert Bosch GmbH |
| Bims | Harry | Bims Laboratories, Inc. |
| Bober | Lennert | Fraunhofer Heinrich Hertz Institute |
| Brown | Monique | National Institute of Info. and Comms. Tech. (NICT) |
| Chaplin | Clint | Self |
| Chen | Run | New Radio Technology Co., Ltd. |
| Connerley | Royce | Union Pacific Railroad |
| Corbalan Pelegrin | Pablo | NXP Semiconductors |
| Danev | Boris | 3db Access AG |
| da Silva | Claudio | Meta Platforms, Inc. |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dolmans | Guido | Holst Centre / IMEC-NL |
| Dotlic | Igor | Qorvo |
| Ghosh | Chittabrata | Facebook, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Goe | Chi-Tao | Qorvo |
| Golshan | Robert | Apple, Inc. |
| Gorthi | Hemamali | Infineon Technologies |
| 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. |
| Hosako | Iwao | National Institute of Info. and Comms. Tech. (NICT) |
| Hu | Chunyu | Facebook |
| Hu | Mengshi | Huawei Technologies Co., Ltd; Huawei Technologies Co., Ltd |
| Ikegami | Tetsushi | Meiji University |
| Jia | Jia | Huawei Technologies Co., Ltd |
| Jiang | Jeng-Shiann | Vertexcom Technologies |
| Jiang | Jinjing | Apple Inc. |
| Joo | Seong-Soon | Electronics and Telecommunications 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. Tech. (NICT) |
| Kerry | Stuart | OK-Brit; Self |
| Kim | Minsoo | YRP International Alliance Institute |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| Kobayashi | Takumi | Yokohama National University |
| Kohno | Ryuji | YNU/CWC UofOulu; YNU/YRP-IAI |
| Krebs | Alexander | Apple Inc. |
| Krieger | Ann | US Department of Defense |
| Kristem | Vinod | Apple Inc. |
| Kuechler | Wolfgang | NXP Semiconductors |
| Kuerner | Thomas | TU Braunschweig |
| 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 | Yong | Apple, Inc. |
| Luo | Xiliang | Apple, Inc. |
| Ma | Yongsen | Redpoint Positioning |
| Mani | Santhosh Kumar | Apple, Inc. |
| Mariappan | Vinayagam | SMR Automotive Modules Korea Ltd |
| Megahed | Abdelfattah | Renesas Electronics Corporation |
| Meilhac | Lisa | DecaWave |
| Mucchi | Lorenzo | University of Florence; ETSI SmartBAN |
| Murray | Carl | Qorvo |
| Nabki | Frederic | SPARK Microsystems |
| Naguib | Ayman | Apple, Inc. |
| Neirynck | Dries | novelda |
| Niewczas | Jaroslaw | Qorvo |
| Ohtsuka | Hiroto | Sony Corporation |
| Paillusseau | Nicolas | SPARK Microsystems |
| Pakrooh | Pooria | Qualcomm Technologies, Inc. |
| Palmer | Clark | Meteorcomm LLC |
| Pare | Thomas | MediaTek Inc. |
| Parthasarathi | Srivathsa Masthi | NXP Semiconductors |
| Peng | Xiaohui | Huawei Technologies Co., Ltd |
| Pirhonen | Riku | NXP Semiconductors |
| Powell | Clinton | Meta Platforms, Inc. |
| Qian | Bin | Huawei Technologies Co., Ltd |
| 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. |
| Salazar Cardozo | Ruben E | NO AFFILIATION |
| Sand | Stephan | German Aerospace Center (DLR) |
| Sasaki | Shigenobu | Niigata University |
| Sayrafian | Kamran | National Institute of Standards and Technology |
| Schmidhammer | Martin | German Aerospace Center (DLR) |
| Segev | Jonathan | Intel corporation |
| Sekine | Norihiko | National Institute of Info. and Comms. Tech. (NICT) |
| Serang | Daoud | CML Microcircuits |
| Shah | Kunal | 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 |
| Sivakolundu | Ramesh | Cisco Systems, Inc. |
| So | Youngwan | Samsung Electronics Co., Ltd. |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sun | Li | Huawei Technologies Co., Ltd |
| Suzuki | Takafumi | National Institute of Info. and Comms. Tech. (NICT) |
| Takabayashi | Kento | Okayama Prefectural University |
| Tian | Bin | Qualcomm Incorporated |
| Verma | Lochan | Apple, Inc. |
| Verso | Billy | Qorvo |
| Wang | Chao Chun | MediaTek Inc. |
| Wang | Yi | Huawei Technologies Co., Ltd |
| Wisland | Dag | Novelda AS; University of Oslo |
| Wu | Kanke | Qualcomm Incorporated |
| Wu | Kuan | Huawei Technologies Co., Ltd. |
| Xiao | Libra | NewRadio Technology Co., Ltd. |
| Yang | Shang-Te | Apple, Inc. |
| Yang | Xun | Huawei Technologies Co., Ltd |
| Ye | Zhenzhen | Red Point Positioning |
| Yee | Peter | NSA-CSD |
| Yong | Su Khiong | Apple, Inc. |
| Yoon | Kangjin | Meta |
| Zeisberg | Sven | ZIGPOS GmbH |
| Zou | Qiyue | Meta |

# 802.15 CAC Mtg.

# Wednesday, 4 May 2022

## Attendance

Phil Beecher

Tim Godfrey

Volker Jungnickel

Tero Kivinen

Ryuji Kohno

Thomas Kurner

Clint Powell

Ben Rolfe

## Minutes

* WG Chair, Clint Powell (Meta) called the mtg. to order at 10:05 am
* 802.15 WG May Agenda is now at r0:

<https://mentor.ieee.org/802.15/documents?is_dcn=226&is_year=2022>

* Attendance for 802.15 in the May Interim is as follows
* For the May Plenary the following 16 time slots are defined as required:
	+ AM1, AM2, PM1
		- 5/10-5/12, 5/16-5/17
	+ AM1
		- 5/18
* 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 the Chair and Vice-Chair by 1 hr after a subgroups (TG or SC) last mtg.
* July Plenary Session Update
	+ There may be polls w.r.t. the July Plenary to help estimate room sizes needed for the mtg.
* May Plenary Sessions
* 802.15 CAC Mtg. was held 10am - 12 pm EDT on Wed. 5/4
* Wireless Opening Plenary Mtg. will be held 9-11 am EDT on Fri. 5/6
* Opening 802.15 WG Mtg. will be held 9-11 am EDT on Tues. 5/10
* Closing 802.15 WG Mtg. will be held 9-11 am EDT on Wed. 5/18
* One PAR is expected to be presented at the WG closing
* 802.15.4 Revision
* Wireless Chairs Mtg. will be held 3pm - 5pm EDT on Wed. 5/4

<https://mentor.ieee.org/802-ec/documents?is_dcn=90&is_group=WCSG&is_year=2022>

* Subgroup Status and Objectives for May Wireless Interim
* Task Group 15.3ma (3 sessions)
	+ Refining technical requirements
	+ Begin work on editing r0 of draft
	+ Affirm technical editor
	+ Hear and discuss presentations
* Standing Committee – THz (1 session)
	+ Hear presentations
* Task Group 15.4 Cor1 (2 sessions)
	+ SA Ballot comment resolution, initial ballot closes 5/12 closing, expect 1 more recirc
	+ Target going to Revcom before July
* Task Group 4ab – NG-UWB (8 sessions + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Refining technical requirements
	+ Continue Technical discussions
	+ Hear and discuss presentations
	+ Aligning PHY features to start drafting text
* Task Group 6a – (ED-BAN) (3 sessions + Joint 6a/4ab/14)
	+ Hear and discuss presentations
	+ Discussion on harmonization with TG 4ab and TG 14Review PAR change
* Task Group 7a – OCC (4 sessions)
	+ Working on baseline draft (D0)
	+ Proposal mergers
* Task Group 13 – Multi Gigabit/sec OWC (4 sessions)
	+ SA Ballot comment resolution, resolving comments from 2nd recirc
	+ Target going to Revcom after July mtg.
* Task Group 14 – UWB-AHN (1 Joint w/ TG15 + Joint 4ab/14/15 + Joint 6a/4ab/14)
	+ Repeat Call for Officers
	+ Joint mtgs w/4ab & 6a reviewing channel models
	+ Will merge .14 and .15 mtg. to 1 mtg. reporting on webinar
* Task Group 15 – NB-AHN (1 Joint w/ TG14 + Joint 4ab/14/15)
	+ Repeat Call for Officers
	+ Will merge .14 and .15 mtg. to 1 mtg. reporting on webinar
* Task Group 16t – 802.16 Lic-NB Amendment (2 sessions)
	+ SRD and SDD Update and Approval
	+ Initiate draft development, call for contributions to Draft
* Joint 802.1/802.15 Mtg. (1 session)
	+ 802.13 feedback on comments from April 802.1/802.15 joint Presentations
	+ Update to 802.1 features matrix and associate text
	+ Discuss plans for moving ahead
* Standing Committee – IETF (1 session)
	+ Discuss IETF activities
* Standing Committee – SC-M, Rules (3 sessions)
	+ Review any change requests for the Operations Manual
	+ Work on any templates
	+ Draft 802.15.4 Revision PAR, target submitting for 802 EC approval at July mtg.
* Standing Committee – WNG (1 session)
	+ Discuss putting .15 stds in ISO JTC1
* 802.15 July Plenary Session will be Hybrid

**CAC Adjourn**

* WG Chair adjourned the mtg. at 12:00 pm