**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 March Plenary 2022** |
| Date Submitted | [8 March, 2022]  |
| Source | [Clint Powell][][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] |
| Notice | This document has been prepared to assist the IEEE 802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
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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 Session

# Monday, 14 March 2022

**~~11:10 AM~~** ~~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 802.15~~

~~Two presentations were given by 802.15:~~

* ~~Clint Powell (Meta), Ben Rolfe (Blind Creek Associates) presented:
“List of topics for 802.15/802.1”
(doc. # 15-22-0036-00-0000)
Covering a summary list of the topics presented in the Dec. 802.1/802.15 Joint Mtg. that are possibly germane/applicable to 802.15~~
* ~~Minsoo Kim, Takumi Kobayashi, Marco Hernandez, Ryuji Kohno (all of Yokohama National University & YRP International Alliance Institute) presented:
“MAC Bridging for Time-Sensitive Networking of 802.15.6a”
(doc. # 15-22-0024-01-006a)
Covering MAC Bridging for Time-Sensitive Networking to enable enhanced reliability of P802.15.6a~~

~~There will be a follow up Joint 802.1/802.15 call mid. Feb. where 802.1 will give a presentation on some of the topics in “List of topics for 802.15/802.1”~~

## ~~802.1/802.15 Joint Session Adjourn~~

**~~12:30 PM~~** ~~802.1 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~~** ~~WG~~~~Vice-Chair, Rick Alfvin (Linespeed) spoke to the attendance method (IMAT) and voting method (DVL)~~

~~~ 79 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 continue run more smoothly with more people involved

~~STRAW POLL for May Interim Session, May 8-13, 2022 Warsaw Marriott, Poland
(anybody can vote)~~

1. ~~If the 2022 May Interim Session is held in Warsaw, Poland as an in-person only session, will you attend? (89 on Webex at time of straw poll)~~
* ~~30 - Yes~~
* ~~37 - No~~
* ~~22 - did not vote~~
1. ~~If the 2022 May Interim Session is held in Warsaw, Poland as a mixed-mode session, will you attend: (90 on Webex at time of straw poll)~~
* ~~28 - Attend In-person~~
* ~~37 - Attend Virtually (remotely)~~
* ~~8 - Will not attend interim~~
* ~~17 - Did not answer~~

## ~~Closing Reports~~

**~~9:05 AM 802.15 WG~~** ~~Closing Agenda by Pat Kinney (Kinney Consulting) (15-22-0006-02-0000)~~

**~~10:25AM TG3ma~~** ~~closing report by Thomas Kurner (TU Braunschweig) (15-22-0060-00)~~

~~TG elected following Officers.~~

~~Thomas Kurner (TU Braunschweig)~~

~~Iwao Hosako (NICT)~~

***~~Motion:~~***~~Move that WG affirms Thomas Kuerner as chair of TG3ma.~~

**~~Moved by:~~**~~Thomas Kurner (TU Braunschweig)~~

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

~~Upon hearing no objections the motion carries by unanimous consent.~~

**~~9:06 AM TG4 Cor1~~** ~~closing report by Tero Kivinen (Self) (15-22-0029-01)~~

~~Resolved comments from LB recirc.~~

***~~Motion:~~***~~Move that 802.15 WG start a WG recirculation requesting approval of P802.15.4-2020-Cor1\_D04 and to forward document P802.15.4-2020-Cor1\_D04, to Standards Association ballot.~~

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

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

~~51 out of 57 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 49/0/2, motion carries.~~

***~~Motion:~~***~~Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG 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:~~**~~Rick Alfvin (Linespeed)~~

~~52 out of 60 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 51/0/1, motion carries.~~

~~2 sessions requested for March Mtg.~~

**~~9:16 AM TG4aa~~** ~~closing report by Takashi Kuramochi (Lapis) (15-22-0017-01)~~

~~Worked on comment resolution and prepared draft for recirc.~~

***~~Motion:~~***~~Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the Standards Association Recirculation balloting of the P802.15.4aa\_D10 or latest draft with the following membership: Takashi Kuramochi(Chair), Hiroshi Harada, Don Sturek, Henk De Ruijter, and Kiyoshi 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)~~

~~55 out of 61 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 54/0/1, motion carries.~~

~~1 session requested for March Mtg.~~

**~~9:25 AM TG4ab~~** ~~closing report by Ben Rolfe (BCA/UWBA/et al.) (15-22-0097-02)~~

~~Heard (almost way too) many contributions. (see TG4ab closing report for details)~~

~~10 sessions requested for March Mtg.: 8 standalone + 1 joint w/.14, .15 + 1 joint w/.14, .6a~~

**~~9:30 AM TG6a~~** ~~closing report by Ryuji Kohno (YNU/YRP-IAI) (15-22-0092-01)~~

~~Several presentations were heard.~~

***~~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:~~**~~Rick Alfvin (Linespeed)~~

~~55 out of 63 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 50/0/5, motion carries.~~

***~~Motion:~~***~~Request that the PAR Revision and CSD contained in documents 15-22-0088-00 and 15-22-0087-01, 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:~~**~~Rick Alfvin (Linespeed)~~

~~60 out of 64 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 53/1/6, motion carries.~~

~~4 sessions requested for March Mtg.: 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) (15-22-0098-00)~~

~~Heard several proposals during the mtg.~~

~~4 sessions requested for March Mtg. (prefer AM0, followed by AM1, then EV2 on Wed., Thurs., Mon., Tues.)~~

**~~10:00 AM TG13~~** ~~closing report by Volker Jungnickel (Fraunhofer HHI) (15-22-0099-00)~~

~~Worked on comment resolutions from SA ballot recircs, nearly complete. Once completed will prepare draft and recirc.~~

***~~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\_D6 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:~~**~~Rick Alfvin (Linespeed)~~

~~50 out of 64 on DVL voted~~

~~Upon no discussion the vote was taken with the results of 47/0/3, motion carries.~~

~~4 sessions requested for March Mtg. (AM0 preferred)~~

**~~10:10 AM TG14~~** ~~closing report by Clint Powell, WG Vice-Chair (Meta) (15-22-0099-00)~~

~~Discussed next steps. Workshop on TG4ab, TG14, TG15 planned for mid - Feb.~~

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

~~3 sessions requested for March Mtg.: 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) (15-22-0046-01)~~

~~Discussed next steps. Workshop on TG4ab, TG14, TG15 planned for mid - Feb.~~

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

~~3 sessions requested for March Mtg.: 2 standalone + 1 joint w/.4ab, .14~~

**~~10:20 AM TG16t~~** ~~closing report by Tim Godfrey (EPRI) (15-22-0090-00)~~

~~Developing SDD System Description Document).~~

~~2 sessions requested for March Mtg. (PM2 or PM1 on 1~~~~st~~ ~~and 2~~~~nd~~ ~~Tues.)~~

**~~10:30 AM SC THz~~** ~~closing report by Thomas Kurner (TU Braunschweig) (15-22-0059-00)~~

~~Reviewed Ofcom doc. on Terahertz Spectrum and generated response.~~

***~~Motion:~~***~~Requests that the text proposal contained in 15-22-0056-02-0thz-IEEE 802 Response to Ofcom Document be approved by the WG for further submission to 802.18 with editorial privileges by the 802.15 WG chair or the 802.18 TAG chair.~~

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

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

~~Upon hearing no objections the motion carries by unanimous consent.~~

~~1 session requested for March Mtg. (Fri. AM1)~~

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

~~Hybrid mtg. expected for March IETF mtg. in Vienna.~~

~~1 session requested for March Mtg.~~

**~~10:37 AM SC WNG~~** ~~closing report by Ben Rolfe (BCA/UWBA) (15-22-0100-00)~~

~~Heard presentation on proposed withdrawal of PAR for 802.15.12 and reviewed several of the concepts already developed as part of the TG12 framework that could be considered for inclusion into other efforts within 802.15.~~

~~Discussed adding a standing item on considering 802.15 submissions for 802 Tech. Talks.~~

~~1 session requested for March Mtg.~~

**~~10:25 AM SC M, Rules~~** ~~closing report by Phil Beecher (Wi-SUN Alliance) (15-22-0022-01)~~

~~Answered 1 question from CSA.~~

~~Discussed upcoming need for 802.15.4 revision.~~

~~2 sessions requested for March Mtg.~~

**~~10:32 AM Joint~~****~~802.1/802.15~~** ~~Liaison verbal report by Tim Godfrey (EPRI) (verbal rpt.)~~

~~Continued work on white papers. Single session will occur on March 9, PM2.~~

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

~~Continued work on white papers. Single session will occur on March 9, PM2.~~

**~~10:35 AM 802.18~~** ~~Liaison report by Jay Holcomb (Itron) (15-22-0004-00)~~

~~40 voting members~~

~~Discussed activities in the following forums/regions:~~

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

~~Recent activities:~~

~~India, Korea, UK Ofcom, ITUR - nothing new, FCC Open Mtg on 1/27 on white spaces and wireless mics.~~

~~Continue work on frequency table~~

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

~~Recognized publication by 19.3.~~

~~Coexistence is becoming a bigger topic as standards move forward.~~

**~~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 Hybrid Interim Session Dates:
to be held 5/8 - 5/13

* Registration Fees for the May Mtg. for in person and remote attendees are as follows:
	+ 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
* ~~Important PAR and CSD Dates:~~

~~Note that PARs and ICAIDs are due 30 days in advance of the opening meeting of all IEEE 802 LMSC plenary sessions.~~

* + ~~All PARs must be submitted to the EC reflector by 4 February, 2022~~
	+ ~~Opening IEEE 802 LMSC meeting: 20:00-22:00 UTC, 4 March, 2022~~
	+ ~~Comments from Working Groups regarding PARs/ICAIDs shall be received by 22:30 UTC, 9 March, 2022~~
	+ ~~Responses to submitted PARs/ICAIDs by 22:30 UTC, 16 March, 2022~~
	+ ~~Closing IEEE 802 LMSC meeting: 18:00-22:00 UTC, 18 March, 2022~~
* 802.15 WG will hold its Sessions Sun., May 8 - Thurs., May 12, 2022
* 802.15 CAC (a.k.a. AC - Advisory Committee):
	+ Sun., May 8, 5:00 pm - 6:00 pm Local Mtg. Time
	+ Wed., May 11, 7:30 am - 8:00 am Local Mtg. Time
* Future 802 WCSC (Wireless Chairs Standing Committee) will occur:
	+ April 6 (Wed.), 3-4:30 pm Eastern
	+ May 4 (Wed.), 3-4:30 pm 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

## WG Adjourn

**~~11:04 AM~~** ~~Upon hearing no objections, the WG Chair adjourned the meeting.~~

# Annex A Virtual attendance = ~~145~~

|  |  |  |
| --- | --- | --- |
| **Last Name** | **First Name** | **Affiliation** |
| ~~Akhavan~~ | ~~Koorosh~~ | ~~Qualcomm Incorporated~~ |
| ~~Aldana~~ | ~~Carlos~~ | ~~Facebook~~ |
| ~~Alfvin~~ | ~~Richard~~ | ~~Linespeed Events LLC~~ |
| ~~Al-kadi~~ | ~~Ghiath~~ | ~~NXP Semiconductors~~ |
| ~~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.~~ |
| ~~Choi~~ | ~~Sangsung~~ | ~~Kookmin University~~ |
| ~~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.~~ |
| ~~Fukui~~ | ~~Kiyoshi~~ | ~~Oki Electric Industry Co., Ltd.~~ |
| ~~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~~ |
| ~~Gu~~ | ~~Jiaqi~~ | ~~Huawei Technologies Co., Ltd; Ltd.~~ |
| ~~Guimond~~ | ~~Raphael~~ | ~~SPARK Microsystems~~ |
| ~~Guo~~ | ~~Jianlin~~ | ~~Mitsubishi Electric Research Labs (MERL)~~ |
| ~~Guo~~ | ~~Ziyang~~ | ~~Huawei Technologies Co., Ltd~~ |
| ~~Ha~~ | ~~Taeyoung~~ | ~~Samsung Electronics Co., Ltd.~~ |
| ~~Han~~ | ~~Chong~~ | ~~pureLiFi~~ |
| ~~Harada~~ | ~~Hiroshi~~ | ~~Kyoto University; National Institute of Info. and Comms. Tech. (NICT)~~ |
| ~~Henry~~ | ~~Jerome~~ | ~~Cisco Systems, Inc.~~ |
| ~~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~~ |
| ~~Hu~~ | ~~Mengshi~~ | ~~Huawei Technologies Co., Ltd; Huawei Technologies Co., Ltd~~ |
| ~~Ikegami~~ | ~~Tetsushi~~ | ~~Meiji University~~ |
| ~~Jiang~~ | ~~Jinjing~~ | ~~Apple Inc.~~ |
| ~~Joo~~ | ~~Seong-Soon~~ | ~~Electronics and Telecommunications Research Institute (ETRI)~~ |
| ~~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~~ |
| ~~Koo~~ | ~~Jonghoe~~ | ~~SAMSUNG ELECTRONICS~~ |
| ~~Krieger~~ | ~~Ann~~ | ~~US Department of Defense~~ |
| ~~Kuechler~~ | ~~Wolfgang~~ | ~~NXP Semiconductors~~ |
| ~~Kuerner~~ | ~~Thomas~~ | ~~TU Braunschweig~~ |
| ~~Kumari~~ | ~~Warren~~ | ~~Google~~ |
| ~~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.~~ |
| ~~Luo~~ | ~~Xiliang~~ | ~~Apple, Inc.~~ |
| ~~Ma~~ | ~~Yongsen~~ | ~~Redpoint Positioning~~ |
| ~~Mani~~ | ~~Santhosh Kumar~~ | ~~Apple, Inc.~~ |
| ~~Mariappan~~ | ~~Vinayagam~~ | ~~SMR Automotive Modules Korea Ltd~~ |
| ~~McCann~~ | ~~Stephen~~ | ~~Huawei Technologies Co., Ltd~~ |
| ~~Mueller~~ | ~~Robert~~ | ~~Technische Universitaet Ilmenau~~ |
| ~~Murray~~ | ~~Carl~~ | ~~Qorvo~~ |
| ~~Nabki~~ | ~~Frederic~~ | ~~SPARK Microsystems~~ |
| ~~Naguib~~ | ~~Ayman~~ | ~~Apple, Inc.~~ |
| ~~Neirynck~~ | ~~Dries~~ | ~~novelda~~ |
| ~~Paillusseau~~ | ~~Nicolas~~ | ~~SPARK Microsystems~~ |
| ~~Pakrooh~~ | ~~Pooria~~ | ~~Qualcomm Technologies, Inc.~~ |
| ~~Palmer~~ | ~~Clark~~ | ~~Meteorcomm LLC~~ |
| ~~Parthasarathi~~ | ~~Srivathsa Masthi~~ | ~~NXP Semiconductors~~ |
| ~~Peng~~ | ~~Xiaohui~~ | ~~Huawei Technologies Co., Ltd~~ |
| ~~Pirhonen~~ | ~~Riku~~ | ~~NXP Semiconductors~~ |
| ~~Powell~~ | ~~Clinton~~ | ~~Powell Wireless Consulting, LLC~~ |
| ~~Rahmani~~ | ~~Mohammad~~ | ~~SPARK Microsystems~~ |
| ~~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~~ |
| ~~Seidel~~ | ~~Hendrik~~ | ~~NXP Semiconductors~~ |
| ~~Sekine~~ | ~~Norihiko~~ | ~~National Institute of Info. and Comms. Tech. (NICT)~~ |
| ~~Serang~~ | ~~Daoud~~ | ~~CML Microcircuits~~ |
| ~~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~~ |
| ~~So~~ | ~~Youngwan~~ | ~~Samsung Electronics Co., Ltd.~~ |
| ~~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)~~ |
| ~~Tada~~ | ~~Kiyoshi~~ | ~~Yokosuka Telecom Research Park, Inc~~ |
| ~~Tian~~ | ~~Bin~~ | ~~Qualcomm Incorporated~~ |
| ~~Verma~~ | ~~Lochan~~ | ~~Apple, Inc.~~ |
| ~~Verso~~ | ~~Billy~~ | ~~Qorvo~~ |
| ~~Wang~~ | ~~Yi~~ | ~~Huawei Technologies Co., Ltd~~ |
| ~~Ward~~ | ~~Lisa~~ | ~~Rohde & Schwarz~~ |
| ~~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~~ |
| ~~Ye~~ | ~~Zhenzhen~~ | ~~Red Point Positioning~~ |
| ~~Yong~~ | ~~Su Khiong~~ | ~~Apple, Inc.~~ |
| ~~Yoon~~ | ~~Kangjin~~ | ~~Meta~~ |
| ~~Zakaib~~ | ~~Larry~~ | ~~SPARK Microsystems~~ |
| ~~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