**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 September 2023 Wireless Interim** |
| Date Submitted | [September 2023] |
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| Re: | [September 802.15 Session] |
| Abstract | [IEEE 802.15 Working Group & CAC Minutes] |
| Purpose | [Official minutes of the Working Group Opening/Mid-week/Closing/Joint and CAC Sessions] |
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**145th IEEE 802.15 WSN SESSION**

**Held Hybrid at Grand Hyatt – Buckhead, GA (all times in local - EDT)**

**September 10-14, 2023**

# 802.15 WG Opening

# Monday, 11th September 2023

**10:36AM** WG Chair, Clint Powell (HID), called the meeting to order and opened the WG Agenda ([*15-23-0430-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-01-0000-september-2023-802-15-agenda.xlsx))

## Announcements

Don’t forget to log in to IMAT, when you speak, state your name and affiliation

You must be registered to participate in any of these session meetings.

Registration for this session is required. If you do not, you are classified as a “dead-beat”.

* Using Direct Vote Live (DVL) for the mid-week and closing plenary.
* TG and SC chairs, get motions to the WG chairs as soon as possible and immediately after your TG closing meeting. Send to Phil Beecher and copy Clint
* 75% Attendance = 9 time slots (any 10 of the 12)

New Participants – none in the room. Any on-line? No.

WG Chair asked for new participants to speak up; there no one in the room or on-line.

There are no WNG presentations. Therefore we will be having a technical editor’s tutorial session. We want all TG/SG chairs and technical editors to attend, but all 802.15 members are encouraged to attend. 6a, 7a, 4ab and 4me will find this beneficial.

## 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*](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 and the standard IEEE Copyright Policy, including Code of Ethics.

## Opening Report

WG Chair presented the WG Agenda: ([*15-22-0430-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-01-0000-september-2023-802-15-agenda.xlsx))

* Showed the graphic schedule
* Joint meeting with 802.1 is during the day (Monday)
* On Wednesday the WNG is the technical editor’s tutorial
* Also Wednesday is the Social at Fogo de Chao.
* Closing on Thursday PM2

## WG Approvals

Motion to *approve the previous meeting minutes (*[*15-23-0321-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0321-01-0000-802-15-wg-cac-minutes-july-2023-hybrid-plenary.docx)*)*

* Moved by: Ann T Krieger (US DoD)
* Seconded by: Thomas Almholt (TI)
* Discussion: none
* Approved by unanimous consent.

Motion to *approve the agenda (*[*15-23-0430-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-01-0000-september-2023-802-15-agenda.xlsx))

* Moved by: Ann T Krieger (US DoD)
* Seconded by: Thomas Almholt (TI)
* Discussion: none
* Approved by unanimous consent.

WG Chair presented the SASB dates, on a tab in the agenda ([*15-23-0430-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-01-0000-september-2023-802-15-agenda.xlsx)), important for TG3mb draft has been placed on the agenda RevCom.

## General and Administrative

WG Chair presented the general meeting information:

* Voters: (voters: 134, nearly: 13, aspirant: 22)

Ben Rolfe (BCA) gave the treasurers report ([*EC-23-0003-06*](https://mentor.ieee.org/802-ec/dcn/23/ec-23-0003-06-WCSG-wireless-treasurer-report-2023.pptx)):

* Same document, but revised for each meeting.
* Did not meet the room block requirements in May so we had a penalty so there was a significant loss. But we are doing OK.
* For 2024 meeting fees will be $600/$800/$1000 with a $300 in stay hotel discount. This is following the EC’s Plenary meeting fee rate.
* Reminder of Deadbeat consequences.
* Registration for November is open.

The July 802.15 CAC meeting minutes are included in the WG minutes
*(this document, 15-23-0473-00)*

The Wireless Chairs Steering Committee meeting minutes are contained in
*(document #:ec-23-xxxx-WCSG -minutes)*

While the Opening report (#[*15-23-0431-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0431-01-0000-september-2023-802-15-opening-report.pptx)) was not displayed, it was mentioned that Slide 3 shows the current stage of each of the 802.15 projects.

## Future Meetings and Polls

Reminder: Running a subgroup meeting, requires a Chair, Vice-Chair or some other office to be present. Please let 802.15 leadership know if there are any problems with this requirement.

Next session is the November Plenary in Hawaii.

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

**TG 15.3mb Revision**: motion to run CRG.

**SC THz**: not meeting

**TG 4ab (NG-UWB)**: agenda doc # 441r03, Opening #479r02

**SC WNG**: repurpose for tutorial

**TG 4ac (Privacy Amendment):** agenda doc #448

**SC IETF:** not meeting.

**TG 4me (Revision to 2020)**: Agenda doc #0386-04

**TG 6ma (BAN/VAN)**: Opening doc #0469-01

**TG 7a (OCC)**: draft needs to go to MEC review, so we are going to need to Recirc.

**TG 14 & TG15** are still in hibernation

**TG 16t (802.16 Lic-NB Amendment)**: Agenda doc #440r0

**SG SUNPHYs (p.k.a. NG-OFDM)**: Agenda doc#478r0

**Joint 802.1/802.15 Mtg**. – Monday PM1 to create a CSD and PAR for 802.15.6

**SC (Maintenance& Rules)**: Agenda doc#450r0

## New Business

WG Chair asked if there was any new business. Nothing was raised.

## Any Other Business

WG Chair asked if there was any other business. Nothing was raised.

## WG Recess

**10:01 PM** WG Chair recessed the meeting

# 802.1 / 802.15 Joint Mtg.

# Monday, 11 September 2023

**1:30 pm EDT** 802.1 and 802.15 joint activity is looking at 802.1 features/concepts that can be applied to the various 802.15 standards. This meeting is a joint mixed mode meeting between 802.1 and 802.15 as part of their respective interim sessions with both chairs, 802.1 Glenn Parsons (Ericsson) and 802.15 Clint Powell (HID) attending.

802.1’s Jessy Rouyer (Nokia) went through the meeting introduction [slides](https://www.ieee802.org/1/files/public/templates/admin-TG-intro-0721-v01.pdf) (made available beforehand) and made the Call for Potential Essential Patents (there was no response to the Call). He continued with the [Agenda](https://1.ieee802.org/2023-09-interim-joint-1-15-agenda/) which was approved by unanimous consent. 802.15’s Ann Krieger (U.S. DoD) agreed to take the minutes.

802.1 started the discussion with the draft PAR (doc# [15-23-453-01](https://mentor.ieee.org/802.15/dcn/23/15-23-0453-01-006a-draft-par-802-1acea-amendment-to-ieee-standard-802-1ac-2016.docx)).The edits were saved as [Rev 2](https://mentor.ieee.org/802.15/dcn/23/15-23-0453-02-006a-draft-par-802-1acea-amendment-to-ieee-standard-802-1ac-2016.docx). Discussion then moved to the draft CSD (doc # [15-23-454-01](https://mentor.ieee.org/802.15/dcn/23/15-23-0454-01-006a-draft-csd-802-1acea-amendment-to-ieee-standard-802-1ac-2016.docx)). These edits were saved as [Rev 2](https://mentor.ieee.org/802.15/dcn/23/15-23-0454-02-006a-draft-csd-802-1acea-amendment-to-ieee-standard-802-1ac-2016.docx). 802.1 will finalize these drafts in its Maintenance Task Group meeting to be held 12 September 2023 8:00-10:00am ET.

Next meeting: Comments on the draft PAR and CSD may be received until Tuesday 5:00pm during the November plenary session, therefore the next meeting will be between Tuesday (6:00pm) and Wednesday (5:00pm).

**2:42pm EDT** Meeting adjournment

# 802.15 WG Mid-week

# Wednesday, 13th September 2023

**10:33 am** WG Chair, Clint Powell (HID) called the meeting to order displaying (document #[*15-23-0430-03*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-03-0000-september-2023-802-15-agenda.xlsx))

1. **Announcements**

This is the 145th meeting, start thinking about what we can do for the 150th in July 2024.

There is a Technical Editor’s Tutorial in the WNG slot after this meeting.

Social tonight starting at 6:30pm.

WG Vice Chair Phil Beecher (Wi-SUN Alliance) had the following announcements:

* Remember to use the microphones when you speak and state your name an affiliation at the start.
* Registration is required for this session
* We will be using DVL. Get your motions to Phil or Clint ASAP, immediately after your last session.

## General and Administrative

Network Service:

* In smaller rooms we’d like 3 omni directional microphones
* Rick Alfin (Linespeed) was in the room and suggested this be discussed with Dawn and Jon R.
* There is an incentive to stay in the meeting hotel (not a penalty for remote users) so we are trying to make it the best experience we can.

We have completed our testing of our automated voting. Phase two would be to add in the balloting information.

We are starting our work on a new website, giving control of each sub-groups information to that sub-group.

## Future Meetings and Polls

The November Plenary will be held in Honolulu, HI Nov 12-17 2023. Early registration ends soon.

TG/SG/SC chairs have an obligation to have someone in the room during their meetings to run the equipment.

There were no polls

## All TG, SG and SC chair verbal status.

**TG 15.3mb Revision**: Has adjourned will have a motion at the closing.

**SC THz**: not meeting

**TG 4ab (NG-UWB)**: verbal

**SC WNG**: repurpose for Technical Editor’s tutorial

**TG 4ac (Privacy Amendment):** verbal

**SC IETF:** not meeting.

**TG 4me (Revision to 2020)**: verbal

**TG 6ma (BAN/VAN)**: verbal

**TG 7a (OCC)**: verbal – WG motion, SA ballot in November

**TG 14 & TG15** are still in hibernation

**TG 16t (802.16 Lic-NB Amendment)**: verbal

**SG SUNPHYs (p.k.a. NG-OFDM)**: verbal – PAR, CSD motion.

**Joint 802.1/802.15 Mtg**. – Writing PAR and CSD for 6a

**SC (Maintenance& Rules)**: verbal

## New Business

WG Chair asked if there was any new business. Nothing was raised.

## Any Other Business

WG Chair asked if there was any other business. Nothing was raised.

## WG Recess

**11:20am** 802.15 Midweek recessed by WG Chair Clint Powell (HID) until Thursday 4:00.

**Wireless Next Generation (WNG)**

**11:22am** 802.15 WNG Called to order with James Gilb (GA-ASI) presenting a technical editor’s instructions (doc # [15-23-0503-00](https://mentor.ieee.org/802.15/dcn/23/15-23-0503-00-0000-technical-editors-instructions.odp))

The Task Group Technical Editor (TGTE) is appointed by the TG chair and confirmed by the TG. The duties are explained in the 802.15 OM. They are responsible for insuring the technical consistency of the draft. The draft is later professionally edited. There is also information in the “WG editors instructions” (doc # [15-10-0324-05](https://mentor.ieee.org/802.15/dcn/10/15-10-0324-05-0000-wg-editors-instructions.pdf)).

The presentation went on to explain:

* The 10 commandments for a proper draft
* Normative vs. Informative
* Amendments are special
* There are IEEE 802.15 specific styles (doc # [15-10-0324-05](https://mentor.ieee.org/802.15/dcn/10/15-10-0324-05-0000-wg-editors-instructions.pdf)).
* Units and numbers

Question: What do you do about references to eternal STDs that have been deprecated? You can use a note.

Remember – if you are a TGTE and need help look to the WGTE or the professional editing staff.

802.1 has tips and tricks for frame maker that can help. Roger Marks is also a good resource.

**Any other business**

**12:14pm** WNG Adjourned by James Gilb

# 802.15 WG Closing

# Thursday, 14th September 2023

**4:04 PM** WG Chair, Clint Powell (HID) called the meeting to order displaying the closing agenda (document #[*15-23-0430-03*](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-03-0000-september-2023-802-15-agenda.xlsx))

## Announcements

150th celebration for WG15, July 2024 in Montreal.

Open Chairs meeting on Sunday in November – changing the attendance, raising the amount, change number of points per session. Voting of rights are in respect to the WG not the TG, attend the opening/mid-week and closing.

You need to register for this meeting and mark your attendance. After checking IMAT – 4 or 5 people need this meeting to make their 75%

## General and Administrative

None

## Future Meetings and Polls

November Plenary Registration is open. Early bird is closing soon. .

No Polls

## Sub-Groups and Committees Closing Reports

Reminder: Running a subgroup meeting, requires a Chair, Vice-Chair or some other office to be present. Please let 802.15 leadership know if there are any problems with this requirement.

**TG3mb Closing Report**: Phil Beecher (Wi-SUN Alliance) presented: [15-23-0489-01](https://mentor.ieee.org/802.15/dcn/23/15-23-0489-01-03ma-tg3mb-closing-plenary-slides-meeting-september-2023.pptx)

* 1 slot for Nov.
* Motion:
	+ Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the Standards Association balloting of the P802-15-3-Rev B-D6.pdf  with the following membership: Thomas Kürner (Chair), Iwao Hosako, Josep Jornet, Shoichi Kitazawa and Jörg Robert. The 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: Phil Beecher
	+ Seconded By: Iwao Hosako
	+ Discussion: none
	+ Vote: Y 27 / 0 N / 4 A

**SC THz Closing Report:** Did not meet

* 0 slots in Nov. meet again in Jan

**TG4ab Closing Report**: Ben Rolfe (BCA) presented[*15-23-0524-00*](https://mentor.ieee.org/802.15/dcn/23/15-23-0524-00-04ab-tg4ab-closing-report.pptx)

* 8 slots in Nov. with 7 teleconferences in between.
* Working on completing the draft (pre ballot draft 0 B)
* Q – Noticed that there is privacy in the draft, they should come to 4ac.
	+ One hour in 4ab for 4ac and one 4ac session that does not conflict 4ab.

**WNG Closing Report**: James Gilb (GA-ASI) discussed verbally

* 1 slot in Nov
* James gave a Technical Editors tutorial.

**TG4ac Closing Report:** Tero Kivinen (self) presented [*15-23-0448-02*](https://mentor.ieee.org/802.15/dcn/23/15-23-0448-02-04ac-september-opening-and-closing.pptx)

* 2 slots in Nov. do not over lap with 802.11bh or .11bi or 802.15.4ab
* 1 hr joint meeting with 802.4ab.

**SC IETF Closing Report:** Did not meet

* 1 slot in Nov

**TG4me Closing Report**: Gary Steubing (Cisco) presented [*15-23-0386-06*](https://mentor.ieee.org/802.15/dcn/23/15-23-0386-06-04me-september-2023-ieee-802-15-4me-plenary-agenda-and-closing.pptx)

* 4 slots in Nov. do not compete with JTC1, no calls at this time.
* Motion:
	+ - Move that 802.15 WG start a WG recirculation requesting approval of document P802-15-04.me-D01 (as edited in accordance with the instructions in document 15-23-0497-06-04me) and to forward document P802-15-04.me-D01, as edited in accordance with the instructions in document 15-23-0497-06-04me, to Standards Association ballot pending the completion and inclusion of the edits in the draft.
		- Moved: Gary Stuebing
		- Second: Phil Beecher
		- Discussion: none
		- Votes: Y 33 / N 0 / A 1
	+ Motion:
		- Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.04.me\_D01 with the following membership: Gary Stuebing (chair), Tero Kivinen, Phil Beecher, Billy Verso, Ann Krieger and Ben Rolfe. The 802.15.4me 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: Gary Stuebing
		- Second: Phil Beecher
		- Discussion: All are voting members from different affiliations
		- Vote: Y 29 / N 1 / A 1

**TG6ma Closing Report**: Ryuji Kohno (YNU/YRP-IAI) presented [*15-23-0512-00*](https://mentor.ieee.org/802.15/dcn/23/15-23-0512-00-006a-tg15-6ma-closing-report-for-september-2023.pptx)

* 4 slots in Nov. – Preferences PM2 preferred, PM1 acceptable.
* Joint session with 802.1 for PAR and CSD for TSN.
* Possible motion in November meeting.

**TG7a Closing Report:** Yeong Min Jang (Kookmin University) presented [*15-23-0522-00*](https://mentor.ieee.org/802.15/dcn/23/15-23-0522-00-007a-15-7a-higher-rate-longer-range-occ-tg-closing-report-sept-2023.pptx)

* + 3 slots in Nov, Preference PM2/ acceptable PM1 (TWR), with 3 teleconferences
	+ Motion:
		- Move that 802.15 WG start a WG recirculation requesting approval of CA document [15-22-0292-r3] and document P802.15.7a\_D6 and to forward document P802.15.7a\_D6, to Standards Association ballot
		- Moved By: Yeong Min Jang
		- Seconded By: Phil Beecher
		- Discussion: Q are the documents posted in the private area? Yes.
		- Votes: Y 21 / N 0 / A 6
	+ Motion:
		- Move that 802.15 WG approve the formation of a Comment Resolution Group (CRG) for the WG balloting of the P802.15.7a\_D6 with the following membership: Yeong Min Jang(Chair), Sang-Kyu Lim, Ryuji Kohno, and Seongsoon Joo. The 802.15.7a 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: Yeong Min Jang
		- Seconded By: Phil Beecher
		- Discussion: All are voting members from different affiliations.
		- Votes: Y 19 / N 1 / A 6

**TG16t Closing Report:** Tim Godfrey (EPRI) presented [*15-23-0523-00*](https://mentor.ieee.org/802.15/dcn/23/15-23-0419-00-016t-july-2023-tg16t-closing-report.pptx)

* + 4 slots in Nov (same as Sept). with 3 teleconferences
	+ Develop Draft 1.0, motion to start letter ballot in November

**SG SUN PHYs:** Thomas Almholt (TI) presented [*15-23-0478-02*](https://mentor.ieee.org/802.15/dcn/23/15-23-0478-02-04ad-ig-sun-phy-next-sep-23.pptx)

* + 3 slots in Nov. and 2 Webex calls before November.
* Motion:
	+ - Move that the PAR and CSD contained in documents [15-23-0436-06-04ad] and [15-23-0494-02-04ad], 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: Thomas Almholdt
		- Seconded by: Phil Beecher
		- Discussion: Clint Powell mentioned
		- Votes: 28 Y / 0 N / 2 A

**Joint Session 802.1/802.15** Phil Beecher (Wi-SUN) verbal.

* + 1 slot in Nov. between Tues 5:00pm and Wednesday 4:00pm
	+ Worked on the PAR and CSD to include TG6a

**SC-Maintenance:** Phil Beecher (Wi-SUN) presented [*15-23-0450-01*](https://mentor.ieee.org/802.15/dcn/23/15-23-0450-01-0mag-scm-agenda-opening-and-closing-report-interim-sept-2023.pptx)

* + 4 slots in Nov. (before PM2 on Tuesday and after PM Wed)
	+ Updated project task list (doc # [15-23-0083-05](https://mentor.ieee.org/802.15/dcn/23/15-23-0083-05-0mag-project-task-list.xlsx))
	+ Typical motions are provided in [15-23-0506-02](https://mentor.ieee.org/802.15/dcn/23/15-23-0506-02-0mag-typical-tg-and-wg-motions.pptx)
* Motion:
	+ - Move that 802.15 Working Group adopts [15-23-0662-02](https://mentor.ieee.org/802.15/dcn/22/15-22-0662-02-0mag-802-15-operations-manual-work-in-progress.docx) (Operations Manual Work In Progress) as 802.15-10-0235-33 Working Group Operations Manual
		- Move: Phil Beecher
		- Second: Ann Krieger
		- Discussion : none
		- Vote: Y 26 / N 0 / A 0

**Liaison Reports**

**802.24 Liaison Report –** Tim Godfrey (EPRI) discussed [*24-23-0027-00*](https://mentor.ieee.org/802.24/dcn/23/24-23-0027-00-0000-september-2023-closing-report.pptx):

* Same meeting pattern in Nov. (Tues & Wed PM2)
* Completed the low latency white paper
* Need to start up the IoT white paper again. Want to meet with the SUN people or 4ab.

**802.18 RRTAG Liaison Report –** Edward Au (Huawei) posted report: [15-23-0439-02](https://mentor.ieee.org/802.15/dcn/23/15-23-0439-02-0000-802-18-to-802-15-liaison-report-september-2023.pptx)

**802.19 Coexistence TAG Liaison Report –** Ben Rolfe (BCA) gave a verbal report.

* There is a PAR and CSD for 19.3a

**802.11 Liaison Report** – Al Petrick (Jones, Petrick, Associates) shared 15-23-0423-00

* + 802.11-2024 is rolling up
	+ WNG – There were two presentations: one on machine learning meets WiFi – 7 and the other one on “Dynamic Polarization Spatial Multiplexing and Beamforming” (doc # [11-23-1464r1](https://mentor.ieee.org/802.11/dcn/23/11-23-1464-01-0wng-dynamic-polarization-spatial-multiplexing-and-beamforming-obliterating-the-mimo-paradigm.pptx))

## New Business

WG Chair asked if there was any new business. Nothing was raised.

## Any Other Business

WG Chair asked if there was any other business. Nothing was raised.

## Adjourn

**5:45 PM** The WG Chair adjourned the meeting

# Annex A Total attendance (in-person + remote) = 100

|  |  |  |
| --- | --- | --- |
| Last Name | First Name | Affiliation |
| Aldana | Carlos | Facebook |
| Almholt | Thomas | Texas Instruments Inc. |
| Amezawa | Yasuharu | Mobile Techno Corp. |
| Andre | Jean-Marie | ST micro |
| Anzai | Daisuke | Nagoya Institute of Technology |
| Bahn | Christy | IEEE STAFF |
| Bansal | Ankur | SAMSUNG |
| Barras | David | 3db Access AG |
| BEECHER | PHILIP E | Wi-SUN Alliance |
| Bettesh | Ido | Apple Inc. |
| Bims | Harry | Bims Laboratories, Inc. |
| Chaplin | Clint | Self |
| Chen | Run | New Radio Technology Co., Ltd. |
| Chitrakar | Rojan | Huawei International Pte Ltd |
| Cho | Hangyu | LG ELECTRONICS |
| Corbalan Pelegrin | Pablo | NXP Semiconductors |
| De Ruijter | Hendricus | Silicon Laboratories |
| Dotlic | Igor | Qorvo |
| Gilb | James | General Atomics Aeronautical Systems, Inc. |
| Godfrey | Tim | Electric Power Research Institute, Inc. (EPRI) |
| Granhaug | Kristian | Novelda |
| Gruber | Josef | Infineon Technologies |
| Guo | Jianlin | Mitsubishi Electric Research Labs (MERL) |
| Harada | Hiroshi | Kyoto University; National Institute of Info and Comms Tech (NICT) |
| Hartman | James | Landis Gyr Group Worldwide |
| Hernandez | Marco | National Institute of Info and Comms Tech (NICT) |
| Hirata | Masayuki | Osaka Univ Grad School of Med, Dept of Neuro Diagnosis & Restoration |
| HOSAKO | IWAO | National Institute of Info and Comms Tech (NICT) |
| Huang | Lei | Huawei Technologies Co., Ltd |
| Huy | Nguyen | Kookmin University |
| Ikegami | Tetsushi | Meiji University |
| Jiang | Jinjing | Apple Inc. |
| Jungnickel | Volker | Fraunhofer Heinrich Hertz Institute |
| Juntunen | Juha | Meteor Communications Corp. |
| Kabbinale | Aniruddh | SAMSUNG |
| Kalkundrikar | Vishal | Ondas Networks |
| Keren | Rani | Huawei Technologies Co., Ltd |
| Kerry | Stuart | OK-Brit; Self |
| Kim | Minsoo | YRP International Alliance Institute |
| Kitazawa | Shoichi | Muroran IT |
| Kivinen | Tero | Self Employed |
| KOBAYASHI | Takumi | YRP International Alliance Institute |
| Kohno | Ryuji | YNU/CWC UofOulu; YNU/YRP-IAI |
| Krebs | Alexander | Apple Inc. |
| Krieger | Ann | US Department of Defense |
| Kristem | vinod | Apple Inc. |
| Lee | Hong Won | LG ELECTRONICS |
| Lee | Jaegook | SAMSUNG ELECTRONICS |
| 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) |
| Luo | Xiliang | Apple, Inc. |
| Ma | Li | MediaTek Inc. |
| Maman | Mickael | STMicroelectronics |
| Megahed | Abdelfattah | Renesas Electronics Corporation |
| Mueller | Robert | DENSO AUTO Deutschland GmbH; Ilmenau Univ of Tech - TU Ilmenau |
| Murray | Carl | Qorvo |
| Nagai | Yukimasa | Mitsubishi Electric Corporation |
| Namboodiri | Vamadevan | SAMSUNG ELECTRONICS |
| Neirynck | Dries | Ultra Radio Ltd |
| Niewczas | Jaroslaw | Qorvo |
| Pakrooh | Pooria | Qualcomm Technologies, Inc. |
| Parthasarathi | Srivathsa Masthi | NXP Semiconductors |
| Peng | Xiaohui | Huawei Technologies Co., Ltd |
| Pirhonen | Riku | NXP Semiconductors |
| Powell | Clinton | HID Global; PWC, LLC |
| Redlich | Oded | Huawei Technologies Co., Ltd |
| Robert | Joerg | TU Ilmenau/Fraunhofer IIS |
| Rolfe | Benjamin | Blind Creek Associates |
| Rosdahl | Jon | Qualcomm Technologies, Inc |
| Sand | Stephan | German Aerospace Center (DLR) |
| Sayrafian | Kamran | National Institute of Standards and Technology |
| Schmidt | Reinhold | Infineon Technologies |
| Sekine | Norihiko | National Institute of Info and Comms Tech (NICT) |
| Shah | Kunal | Silver Spring Networks Inc. |
| SHAHAR | MENASHE | Ondas Networks |
| Shilo | Shimi | Huawei Technologies Co., Ltd |
| So | Youngwan | Samsung Electronics Co., Ltd. |
| Stuebing | Gary | Cisco Systems, Inc. |
| Sturek | Don | Itron Inc. |
| Sun | Li-Hsiang | MediaTek Inc. |
| Suzuki | Takafumi | NICT |
| Takabayashi | Kento | Toyo University |
| Tang | Weidong | NewRadio Techologies Co., Ltd. |
| Tian | Bin | Qualcomm Incorporated |
| Verma | Lochan | Apple, Inc. |
| Verso | Billy | Qorvo |
| Wendt | Matthias | Signify |
| Wilhelmsson | Leif | Ericsson AB |
| Wisland | Dag | University of Oslo; Novelda AS |
| Wu | Kanke | Qualcomm Incorporated |
| 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 |
| Zakaib | Larry | SPARK Microsystems |
| Zeisberg | Sven | ZIGPOS GmbH |

# 802.15 CAC Mtg.

# Sunday, 10th September 2023

## Attendance (11)

Clint Powell

Phil Beecher

Ann Krieger

Thomas Almholt

Ben Rolfe

Tero Kivinen

Gary Stuebing

Clint Chapman

Ryuji Kohno

Christy Bahn

James Glib

Yeong Min –absent

Tim Godfrey – absent

## Minutes

**5:46 pm**: WG Chair, Clint Powell (HID) called the mtg. to order and presented the Agenda ([*15-23-0430-01*](https://mentor.ieee.org/802.15https%3A/mentor.ieee.org/802.15/dcn/23/15-23-0430-01-0000-september-2023-802-15-agenda.xlsx/dcn/23/15-23-0301-01-0000-july-2023-802-15-agenda.xlsx))

General Announcements:

* Chair showed the opening slides and ask patent claim question, please show them at your TG opening.
* Update on NesCom and RevCom dates: Waiting for the approval of the TG3 amendment.
* TG/SC/SG chairs - you need to be here or have someone here at the AC meeting.

September Meetings:

* 802.15 Chairs Corner: 2pm to 3:00pm on Sun., Sept 10, 2023
* 802 Wireless Chairs (WCSC) meeting: 4pm to 5:30pm on Sun. Sept 10, 2023
* Opening 802.15 WG AC meeting: 5:30pm to 6:30pm on Sun. Sept 10, 2023
* Opening 802 Wireless meeting: 8:00am to 9:00am on Mon. Sept 11, 2023
* Opening 802.15 WG meeting: 9:00am to 10:00am on Mon. Sept 11, 2023
* Mid-Week 802.15 WG AC meeting: 7:30am to 8:30am on Wed. Sept 13, 2023
* Mid-Week 802.15 WG meeting: 10:30am to 11:30am on Wed. Sept 13, 2023
* Closing 802.15 WG meeting: 4pm to 6pm on Thurs. Sept 14 2023
* Closing 802 LMSC: N/A
* Joint meeting with 802.1/802.15 Mon. Sept 11, 2023

Subgroup Status and Objectives for July Plenary.

* **Task Group 3mb** – Ann Krieger will be in the room. Reform the CRG.
* **Study Group THz** – not meeting.
* **Task Group 4ab – NG-UWB**
	+ Had to suspend the pre-comments period. We need to make sure the technical editors to be clear on their role.
	+ Technical editor has produced another draft. We plan on working on this draft during these meetings. Get it ready for the informal comment collection.
* **Standing Committee WNG** – Technical Editor Session.
* **Task Group 4ac Privacy Amendment** – No contributions. Would like the 4ab people who are doing some privacy things to come.
* **Standing Committee IETF** – not meeting.
* **Task Group 4me Revision to 2020** – The letter ballot passed with 139 comments. There were some late votes and comments.
* **Task Group 6ma – BAN/VAN** – Working on comments and comment resolution.
* **Task Group 7a – OCC** – no one present – Finished the 3rd recirc. Need to review the PAR, is it an amendment or a revision? Can proceed with a MEC review.
* **Task Group 16t – 802.16 Lic-NB Amendment** – No one present – pre-ballot comment collection.
* **SG SUN PHYs (p.k.a. NG-OFDM)** – Work on the PAR and CSD.
* **Standing Committee – SC-M / Rules** – There are things to fix in the operations manual. A motion will be crafted to authorize the SC M to act on behalf of the WG when we are making comments on other WG PARs.

Upcoming Meetings:

* Current - September 2023 – Wireless Interim in Atlanta
* November 2023 – Plenary in Hilton Hawaii

AOB:

* 802.1/802.15 Joint – Monday – to develop a PAR and CSD for 802.15.6.
* Reminder about awards: Heading into SA ballot period, work with Clint on these.
* Fully automated voting rights tool is being used now. It should help take care of changes in names, email addresses etc.
* Next focus is updating our website. It will allow for TG chairs to update their webpage portions. Still updating the minutes on the web site.
* Discussions within 802.15 leadership to make sure drafts are cleaner and more standardized, there will be an editorial overview during the WNG. We need all TG, SG, chairs and their technical editors to attend, but everyone is welcome.

**6:30pm** WG chair recessed until Wednesday (8:00-9:00am)

# 802.15 Mid-Week CAC Mtg.

# Wednesday, 13th Sept. 2023

## Attendance

Clint Powell

Phil Beecher

Ann Krieger

Thomas Almholt

Tero Kivinen

Gary Stuebing

Clint Chapman

Ryuji Kohno

Christy Bahn

Yeong Min

Tim Godfrey

Stuart Kerry

## Minutes

**8:07am**: WG Chair, Clint Powell (HID) called the mtg. to order and presented the agenda ([15-23-0430-02](https://mentor.ieee.org/802.15/dcn/23/15-23-0430-02-0000-september-2023-802-15-agenda.xlsx))

General Announcements:

* Chairs, show the Patent Policy, flip through the slides and make the call.
* During the mid-week WNG slot, there will be a Technical Editor’s tutorial. All TG/SG chairs and technical editors should be there.
* Get Closing Motions to Phil Beecher (Wi-SUN) immediately after you closing.
* November meeting, registration early bird ends soon.
* Clint will talk about the voting/website at our mid-week. We will have templates for the sub-groups for the website. They should be updated after every meeting.

Mid-week motions: none

Subgroup Status and Objectives for July Plenary

* **Task Group 3mb**
	+ Closing motions – yes
* **Study Group THz**
	+ Not meeting
* **Task Group 4ab – NG-UWB**
	+ No motions
* **Standing Committee WNG**
	+ Technical Editor’s Tutorial.
* **Task Group 4ac Privacy Amendment**
	+ No motions
* **Standing Committee IETF**
	+ Not meeting.
* **Task Group 4me Revision to 2020**
	+ Closing motions - yes
* **Task Group 6ma – BAN/VAN**
	+ No motions
* **Task Group 7a – OCC**
	+ Checked drafts and should be ready for ballot recirculation.
* **Task Group 16t – 802.16 Lic-NB Amendment**
	+ Possible Motion at Closing
* **SG SUN PHYs (p.k.a. NG-OFDM)**
	+ PAR and CSD should be ready for closing.
* **Standing Committee – SC-M / Rules**
	+ Closing Motions – yes.

Any Other Business:

* TG chairs, please have people use the microphones when speaking. Can we ask for non-directional mics in the smaller rooms?
* Problems with using IEEE email – need SMTP server
* Have 4ac show up at 4ab to discuss privacy.
* Present room requests at closing.
* Two screens is useful for comment resolution.

**8:43am** WG chair adjourned the CAC meeting.