IEEE P802.11
Wireless LANs

|  |
| --- |
| Minutes of the IEEE P802.11 Full Working Group |
| Date: 2023-05-15 |
| Author(s): |
| Name | Company | Address | Phone | email |
| Stephen McCann | Huawei Technologies Co., Ltd | Southampton, UK |  | stephen.mccann@ieee.org  |

Abstract

This document constitutes the minutes of the IEEE 802.11 full working group for the May 2023 session.

Please note that all affiliations at this session are shown in Annex A.

**Abbreviations:**

A: Answer

C: Comment

Q: Question

TG: Task Group

TIG: Topic Interest Group

SG: Study Group

**IEEE 802.11 Plenary Session #199**

**May 14th – 19th, 2023**

**IEEE 802.11 Opening Plenary, Monday May 14th, 2023**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 09:04 Eastern Time (ET) and declared quorum for the session.

1st Vice-chair (VC1): Jon Rosdahl Qualcomm

2nd Vice-chair (VC2): Robert Stacey Intel

Secretary: Stephen McCann Huawei Technologies Co., Ltd

There are 527 Voters, 34 Potential Voters and 11 Ex Officio voters of IEEE 802.11\*

There were 112 people attending in person (in the room) and 261 on Webex.

\*who ask to be recognized as such in the 802.11 voters list.

1. **Notices** (11-23-0619r0)
	1. Chair: Please note the information about the meeting decorum.
	2. Are there any members of the press present?
		1. None.
	3. IEEE Staff present
		1. Christy Bahn is the staff representative for 802.11.
	4. Please note that this session requires a registration fee to be paid.
2. **Approve/modify working group agenda** (11-23-0618r2)
	1. This is a summary of the meeting today. Please note the schedule for this session on the separate tab “Schedule”.
	2. **Move to approve the agenda 11-23-0618r2 for the Monday opening plenary**
		1. Moved: Marc Emmelmann, 2nd: Stuart Kerry
		2. No objection to approving by unanimous consent
3. **March 2023 WG Minutes**
	1. **Move to approve the March 2023 WG minutes document 11-23-0493r1**
	2. Moved: Stephen McCann, 2nd: Tuncer Baykas
	3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **New Attendees** (11-23-0188r1 slide #4)
	1. **Straw Poll: Are you a new attendee to IEEE 802.11?**
		1. Yes: 15
	2. There will be a New Members meeting this week on Tuesday May 14th at 10:30 ET in room Palm 3. Everyone is welcome to join this meeting.
5. **Call for essential Patents** (11-23-0596r0)
	1. The current PatCom rules were read out, including the call for essential patents information, as shown by:
	2. <https://development.standards.ieee.org/myproject/Public/mytools/mob/patut.pdf>
		1. There were no issues raised regarding the call for essential patents.
		2. There was no response to the call for essential patents.
6. **Participation and Attendance** (11-23-0596r0)
	1. The slides about IEEE 802 meeting participation and IEEE SA copyright were also read.
	2. Expected participant behavior was also announced.
	3. Remember to do your attendance for this meeting. To achieve 75%, which counts towards an attendance credit for the session, you must attend 9 meeting slots.
	4. Regarding slide #21, this is a reminder about the abstain vote.
7. **Announcements** (11-23-0177r0)
	1. **Liaisons** (slide #4)
		1. Chair: There have been some liaison activities since March 2023. There is new liaison from WBA that was received yesterday. The ARC Standing Committee (SC) will consider a response to this.
	2. **EC and IEEE-SA standard board decisions** (slides #5 and #6)
		1. Chair: These are some items from recent EC and IEEE-SA meetings.
	3. **Joint meetings & reciprocal credit with IEEE 802 groups** (slide #8)
		1. Reminder that there are topics relevant to IEEE 802.11 to be covered in IEEE 802.18, IEEE 802.19, IEEE 802.24, IEEE 802.1 and IEEE 802 JTC1 SC.
8. **Logistics and Key events/activities** (11-23-0591r0)
	1. <https://mentor.ieee.org/802-ec/dcn/23/ec-23-0092-01-WCSG-802w-0523-things-to-know-hilton-orlando-lake-buena-vista.pptx>
	2. This document provides information about this week’s session.
	3. If you have any audio-visual issues this week, please contact the registration desk, as shown on slide #2 (check)
	4. Please remember to register your attendance using IMAT.
	5. This session requires registration, so please follow the link to pay the registration fee.
	6. The next plenary session is at the Estrel hotel in Berlin in July 2023.
	7. There is a new Wi-Fi network at this venue, supporting the 6 GHz band.
	8. There is a social on Wednesday evening here at the conference venue. If you wish to bring a guest, please can you collect a badge for them from the IEEE 802 registration desk.
	9. For the July meeting in Berlin, please note that the hotel block booking finishes on May 30th.
	10. The next interim meeting will be in September 2023. The registration page should be ready at the start of June.
9. **Timeline**
	1. The updated timeline chart was presented to show that various changes have occurred with the publication of 11bd and 11az.
10. **WG Information** (11-23-0619r0)
	1. These slides contain information about the following topics:
		1. TGbe PAR extension
		2. IEEE 802.11 officers
		3. Recent Ballots
		4. Historic membership slides
11. **Group Summaries** (11-23-0595r0)
	1. Special notes were mentioned for the following groups:
	2. **Editors’ meeting and ANA** (slides #3 & #4)
		1. There is an editors’ meeting at 07:00 Eastern on Tuesday morning. Other topics include the ANA status (11-11-0270r67). Please remember that items in Table 9-210 are now under ANA control.
		2. No questions.
	3. **ARC SC** (slide #5)
		1. There are 2 meetings this week.
		2. Additional discussions items that are not on the slides include:
			1. 802REVc items.
			2. WBA liaison.
		3. No questions.
	4. **Coex** **SC** (slide #7)
		1. This standing committee will meet once this week.
		2. No questions.
	5. **PAR** **SC** (slide #8)
		1. There is no meeting this week.
		2. No questions.
	6. **WNG** (slide #9)
		1. There are 3 presentations planned for this week’s meeting.
		2. No questions.
	7. **JTC1** **SC** (slide #10)
		1. There is 1 meeting during this session.
		2. No questions.
	8. **REVme** (slide #13)
		1. The main goal this week is to start working on comments from the recent letter ballot (LB) 273 that passed with 92.7% approval. There are 5 meetings this week.
		2. No questions.
	9. **TGbe** (slide #13)
		1. There was a 3 day ad-hoc in San Jose, CA, USA last week that worked on comment resolutions from LB 271.
		2. No questions.
	10. **TGbf** (slide #16)
		1. The group is now working on comments from LB 272 and has completed about 40% of them.
		2. Chair: I would like to acknowledge Tony Xiao’s presence here at this meeting.
		3. No questions.
	11. **TGbh** (slide #20)
		1. There is now a draft D0.3 and all the comments from the initial comment collection have been resolved.
		2. The plan is that TGbh will move to an initial letter ballot this week.
		3. No questions.
	12. **TGbi** (slide #21)
		1. The group is still addressing feature definitions this week and is requesting more technical submissions.
		2. No questions.
	13. **TGbk** (slide #22)
		1. The group has started working on draft text for an initial draft and this will progress during the week.
		2. No questions.
	14. **UHR SG** (slide #25)
		1. There have been 4 teleconferences since the March 2023 meeting. Work has continued regarding the PAR and CSD.
		2. No questions.
	15. **AMP SG** (slide #27)
		1. AMP will meet as a study group this session for the first time.
		2. No questions.
	16. **AIML TIG** (slide #28)
		1. The activity this week is to continue the discussion of use cases and technical feasibilities for possible technologies.
		2. There will be a discussion about creating a submission for the submitting to the UHR SG.
		3. No questions.
	17. **ITU ad-hoc** (slide #30)
		1. There are no meetings this week.
		2. No questions.
12. **Working Group Motions (Old Business)** (11-23-0586r0)
	1. **Motion 1: AMP SG Chair**
		1. **Confirm Bo Sun as the IEEE 802.11 Ambient Power (AMP) Study Group (SG) chair.**
		2. Moved: Steve Shellhammer, 2nd: Dave Halasz
		3. Result: approved by unanimous consent
13. **Announcements**
	1. **802REVc**
	2. There are some 802REVc meetings occurring this week as shown by the submission 11-23-0848r1.
	3. The times are a little unusual, as IEEE 802.1 is meeting in another venue this week.
	4. No questions.
14. **Recess**
	1. Meeting recessed at 10:14 ET.

**Wednesday, May 17th, 2023**

**IEEE 802.11 Mid-week Plenary**

Call to order at 13:30 ET by Dorothy Stanley (HPE).

There were 82 attending in person (in the room) and 209 on Webex.

1. **Approve/modify working group agenda** (11-23-0618r3)
	1. Chair: There have been some minor changes to the agenda since the opening plenary.
	2. **Approve the agenda for the today’s meeting as shown in 11-23-0618r3.**
		1. Moved: Al Petrick, 2nd: Jonathan Segev
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-23-0596r0)
	1. **Call for essential patents** (11-23-0596r0 slide #5)
		1. This is the Call for Essential Patents
		2. No statements.
		3. No questions.
	2. **Meeting decorum** (11-23-0619r0 slide #3)
		1. No questions.
		2. No members of the press are present.
	3. **Designation of Individual experts** (11-23-0619r0 slide #20)
		1. There are none present at this session.
		2. No questions.
3. **Social**
	1. This is a reminder about the social this evening that will be held at the poolside in this hotel starting at 18:30 ET.
	2. If you have a guest, please remember to collect a badge for them.
4. **Annoucements** (11-23-0619r0)
	1. These slides show extra information about IEEE 802.11 activities that were not covered during the opening plenary on Monday.
	2. There is a new vice-chair for AMP SG, Steve Shellhammer.
	3. No questions.
5. **Wi-Fi Alliance Liaison** (11-23-0758r0)
	1. The next Wi-Fi Alliance (WFA) meeting will be in June 2023 in Mexico City.
	2. The last meeting was held last week in March 2023 in Seoul.
	3. No questions.

.

1. **IETF Liaison** (11-23-0809r0)
	1. The next meeting will be in San Francisco in July 2023.
	2. Slide #7 shows several projects which may be of interest to IEEE 802.11
	3. Note that the RAW working group will probably be merged with DetNet.
	4. Chair: In the July 2023 plenary, there will be a tutorial on the RAW topic.
	5. No questions.
2. **IEEE 802.15 Liaison** (11-23-0869r0)
	1. This is information about various groups within IEEE 802.15 that are of interest to IEEE 802.11.
	2. No questions.
3. **IEEE 802.18 Liaison** (11-23-0571r1)
	1. There are now several topics being studied within IEEE 802.18.
	2. There will be a summary of ETSI and TC BRAN activities during the IEEE 802.18 closing plenary on Thursday morning at 08:00 ET.
	3. No questions.
4. **IEEE 802.19 Liaison** (11-23-0879r0)
	1. This document summarizes the discussion topics within IEEE 802.19 meetings.
	2. Today is World Telecommunication and Information Society Day.
	3. No questions.
5. **IETF BABEL Liaison** (11-23-0769r0)
	1. The co-chair of the IETF BABEL working group made this presentation related to 802.11s technology.
	2. It explains that the IETF would like to work on mesh path selection protocols, but they would like to receive a liaison from IEEE 802.11 indicating no objection to this activity.
	3. motion
	4. No questions.
6. **Working Group Motions (Old Business)** (11-23-0586r3)
	1. **Motion 2: IETF BABEL for mesh liaison**
		1. **Request the IEEE 802.11 Working Group (WG) chair to send the liaison in 11-23/0812r0 to the IETF BABEL Working Group, granting the WG chair editorial license.**
		2. Moved: Guido Hiertz, 2nd: Dan Harkins
		3. Result: Yes: 60, No: 1, Abstain: 35 (Motion passes)
	2. **Motion 3: P802.11bh initial letter ballot**
		1. **Having approved 11-22-0651r18, motions 9, 11, 12, 13, 16 and 17, instruct the editor to prepare P802.11bh D1.0,**
		2. **and approve a 30 day Working Group Technical Letter Ballot asking the question “Should P802.11bh D1.0 be forwarded to SA Ballot?”**
		3. Moved on behalf of TGbh by Mark Hamilton
		4. Result: Approved by unanimous consent (Motion passes)
		5. [TGbh: Moved: Jerome Henry, 2nd: Joseph Levy, Result: 21/1/1]
		6. Chair: As there are now many voters in 802.11, please can you take part in this letter ballot, as it requires a 50% return rate to complete. Voting members that do not vote, may find that it affects their voting rights.
	3. **Motion 4: TGbc minutes**
		1. **Move to approve the TGbc minutes in document: <https://mentor.ieee.org/802.11/dcn/23/11-23-0408-00-00bc-minutes-of-tgbc-march-2023-atlanta-plenary-meeting.doc>**
		2. Moved: Marc Emmelmann, 2nd: Xiaofei Wang
		3. Result: Approved by unanimous consent (Motion passes)
	4. **Motion 5: TGbb minutes**
		1. **Move to approve the TGbb minutes in document: <https://mentor.ieee.org/802.11/dcn/23/11-23-0469-01-00bb-tgbb-march-meeting-minutes.docx>**
		2. Moved: Volker Jungnickel, 2nd: Tuncer Baykas
		3. Result: Approved by unanimous consent (Motion passes)
		4. Chair: Regarding the 11bb and 11bc amendments, they have not been approved by IEEE SA. IEEE-SA approval is expected to occur in early June 2023.
	5. **Motion 6: TGbe PAR extension**
		1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines,**
		2. **Request that the PAR contained in 11-23-0654r0 be posted to the IEEE 802 Executive Committee (EC) agenda for EC approval to submit to NesCom.**
		3. Moved on behalf of TGbe by Alfred Asterjadhi, 2nd: Allan Jones
		4. Result: Yes:104, No: 0, Abstain: 7 (Motion passes)
		5. [TGbe: Moved: Allan Jones, 2nd: Brian Hart, Result: 74/0/6]
	6. **Motion 7: P802.11be CSD confirmation**
		1. **Confirm the CSD contained in ec-19-0063r0.**
		2. Moved: Marc Emmelmann, 2nd: Matthew Fischer
		3. Result: Yes: 94, No: 0, Abstain: 12 (Motion passes)
7. **Awards ceremony**
	1. Chair: I would like to invite everyone to stay for an awards ceremony. We will recess first, then start the ceremony.
8. **Any other Business (AoB)**
	1. None
9. **Recess**
	1. Meeting recessed at 14.39 ET.
10. **Awards ceremony**
	1. Awards were then distributed for the following groups that have recently completed their work:
	2. 802.11az-2022: <https://mentor.ieee.org/802.11/dcn/23/11-23-0852-00-00az-tgaz-awards.pptx>
	3. 802.11bd-2022: <https://mentor.ieee.org/802.11/dcn/23/11-23-0878-00-00bd-802-11bd-awards.pptx>
	4. Photographs (taken after the recess) are available at <https://grouper.ieee.org/groups/802/11/Photographs/photographs.htm>

**Friday, May 19th, 2023**

**IEEE 802.11 Closing Plenary**

Call to order at 08:00 ET by Dorothy Stanley (HPE).

There were 135 people in the meeting (Webex), with 53 attending in person (in the room).

1. **Approve/modify working group agenda** (11-23-0618r4)
	1. Chair: There have been some minor changes to the agenda since the mid-week plenary.
	2. **Approve the agenda for the today’s meeting as shown in 11-23-0618r4**
		1. Moved: Lei Wang, 2nd: Al Petrick
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-23-0620r1)
	1. **Participation** (slides #11 - #13)
		1. Please can you all remember to read this slide and understand that everyone is here as an individual subject matter expert.
	2. **Call for Essential Patents** (slide #14)
		1. This is the Call for Essential Patents
		2. No statements
		3. No questions.
	3. **Meeting Decorum** (slide #15)
		1. No questions.
	4. **Next session and CAC meetings** (slide #16)
		1. The next session of the IEEE 802.11 working group is from July 9-14, 2023. It will be a mixed mode session in Berlin, Germany.
		2. Please be aware of the chair’s committee meetings (CAC), the first one of which will be on June 5th at 09:00 ET. Please note the deadline for the sub-group agendas.
	5. **Technical Editor**
		1. There is an open position of working group technical editor. Please let the chair know if you are willing to take on this role.
	6. **Attendance**
		1. The Tuesday evening TGbe meeting was cancelled. However, there were 80 people who signed in to record their attendance. Please be honest about recording your attendance.
		2. Q: How many of these people were remote?
		3. A: The vast majority.
	7. **Lost property**
		1. A wireless mouse was found in the UHR meeting room. Please check with the IEEE 802 registration desk for any general lost property from the meeting rooms.
	8. **Sub-group minutes**
		1. Please note that sub-group minutes should be completed within 30 days from the close of this plenary.
	9. **Letters of Assurance (LoA)** (slide #17)
		1. Chair: please remember about the LoA requirements.
		2. There are two open LoA requests at the moment.
		3. No questions

.

* 1. **IEEE Store and ISO SC6** (slides #19 - #20)
		1. This is summary of drafts that have been liaised to ISO/IEC.
		2. No questions.
	2. **Social Media** (slide #20)
		1. There are several recent updates to the social media blogs. Please look at the blog references mentioned on the slide.
		2. No questions.
	3. **IEEE 802 Public Visibility Standing Committee** (slides #21)
		1. This IEEE 802 group is designed to increase the external visibility of IEEE 802.
		2. Please note that Tuncer Baykas is the new chair of this committee.
		3. No questions.
	4. **IEEE 802.11 Public Visibility Standing** (slides #22)
		1. There are some specific IEEE 802.11 events coming up, the first of which is on next Monday.
		2. No questions.
1. **Treasury Report** (ec-23-0003r4)
	1. VC1: This shows the treasurers’ report and is correct as of May 9th, 2023.
	2. Please note there is about $500,000 of expenses that need to be paid out from the total figure.
	3. For this meeting only 74% of the room block was met, as many people decided not to attend the hotel. This has resulted in a penalty of $15,000 for the week. In the future, this may need to be considered in the registration fee.
	4. We are now considering re-introducing a reduction in registration fees if you stay at the venue hotel.
	5. For the July meeting in Berlin, please be aware of the cancellation fees for the hotel, as they are different from what you may be used to.
	6. The registration fee for the mixed-mode September 2023 session is $600/$800/$1000 (early/standard/on-site)
	7. The fees for Berlin in July 2023 will be $700/$1000/$1300.
	8. The fees for November 2023 will be decided later in the summer.
	9. Please be aware of the deadbeat consequences on slide #13. There are 2 new deadbeats from the March 2023 meeting.
	10. Q: Regarding the room block, this contract came from an IEEE 802 plenary. Was this considered?
	11. A: Yes, the new contract for this time was for 50% attendance of the original contract for that plenary. The number of attendees was about right, but it was the number of people actually staying in this hotel that was reduced.
2. **May 2023 Venue Straw Polls** (11-23-0591r0 - slide #18)
	1. Only people present in the room were asked to participate in the following straw polls:
	2. **1. How many people would like to come back to this venue?**
		1. Yes: 38
		2. No: 7
	3. **2. Did you go to the social?**
		1. Yes: 44
		2. No: 7
	4. **3. If you attended the social, did you enjoy it?**
		1. Yes: 21
		2. No: 14
		3. Chair: These are questions to those people who were present at the venue. I appreciate that some people leave early or attend from their hotel rooms.
3. **Future Venue Straw Polls** (11-23-0586r4)
	1. July 2023
	2. **1. If the 2023 July 802 Plenary Session were held at the Estrel, Berlin, as an in-person only session, would you attend?**
	3. Yes: 58
	4. No: 31
	5. Abstain: 6
	6. **2. If the 2023 July 802 Plenary Session were held at the Estrel, Berlin, as a mixed-mode session, will you attend?**
	7. Attend In-person: 58
	8. Attend Virtually (remotely): 38
	9. Will not attend: 0
	10. September 2023
	11. **1. If the 2023 September 802 Wireless Interim Session were held at the Grand Hyatt, Buckhead, Atlanta, as an in-person only session, would you attend?**
	12. Yes: 48
	13. No: 43
	14. Abstain: 6
	15. **2. If the 2023 September 802 Wireless Interim Session were held at the Grand Hyatt, Buckhead, Atlanta, as mixed-mode session, will you attend?**
	16. Attend In-person: 40
	17. Attend Virtually (remotely): 50
	18. Will not attend plenary: 4
4. **Future Venues Manager Report** (11-23-0591r0)
	1. There is no major update since the March 2023 meeting.
	2. Slide #21 shows the upcoming interim sessions for the next couple of years.
	3. Note the update for January 2025 that will be in Kobe, Japan.
	4. May 2025 should be in Europe or Asia.
	5. Slide #22 shows the upcoming plenaries.
	6. Q: Is there a plan to re-book the Honolulu meeting, after November 2023?
	7. A: Yes, there are 2 contracts, one in November 2023 and November 2027. Please note that only about 60% of people attend the meetings in person and staying in the venue hotel, compared to before the pandemic.
5. **Timeline update**
	1. The main changes are for the TGbe and REVme timelines. The timeline chart should be updated shortly.
	2. No questions
6. **Attendance statistics** (11-23-0594r1 slide #4)
	1. VC2: These slides are a summary of the attendance statistics and sub-group activities during this session. The numbers have been increasing slowly over the last couple of years.
7. **WG Committee Reports** (11-23-0591r4)
	1. **Editors** (slide #11)
		1. There was some discussion about MDR topics for REVme.
		2. Slide #15 shows the ANA changes since the last session (March 2023)
		3. No questions.
	2. **ARC SC** (slide #18)
		1. The slides show the work covered within the ARC meeting this week.
		2. The group has considered the IEEE Std 802 revision activity (P802REVc).
		3. Discussions about Annex G also continued.
		4. A WBA liaison (11-23-0838r1) is available for information.
		5. No questions.
	3. **Coex SC** (slide #25)
		1. There have been various issues discussed during the week.
		2. Discussions include updates from ETSI BRAN.
		3. There was an update from the Bluetooth SIG about their developments for the 6 GHz band.
		4. No questions.
	4. **WNG** **SC** (slide #32)
		1. There were 3 presentation this session:
		2. “Babel for 802.11 Mesh,” Donald E. Eastlake 3rd (Futurewei Technologies), 11-23/0769r0
		3. “WLAN Backhaul Options,” Andy Shen (Futurewei), 11-23/0677r0
		4. “S1G+ UL MU-MIMO,” Dave Halasz (Morse Micro), 11-23/0807r0
		5. No questions.
	5. **JTC1 SC** (slide #35)
		1. The meeting covered the status of various IEEE 802 amendments going through the PSDO process.
		2. There are still some IPR issues that are slowing progress between IEEE and ISO.
		3. No questions.
	6. **TGme** (slide #38)
		1. This session, the group worked on comments from LB273.
		2. The current plan is to complete comment resolution in July and request the start of an SA ballot.
	7. **TGbe** (slide #44)
		1. There were 11 meeting slots in this session working on comment resolutions from LB271. Progress is going well.
		2. The plan is to have an ad-hoc just before the July 2023 meeting in Berlin.
		3. No questions.
	8. **TGbf** (slide #47)
		1. Progress was made on comment resolutions through the week from the D1.0 letter ballot (LB272 number). 50% of comments have been resolved.
		2. The plan is to have an ad-hoc meeting before the July 2023 meeting.
		3. No questions.
	9. **TGbh** (slide #52)
		1. The group completed D1.0 and the initial letter Ballot should start shortly. This was approved by the working group during the mid-week plenary.
		2. There is also a WBA liaison response that the group is working on.
		3. Chair: When will D1.0 be ready?
		4. A: This should be next week. Therefore, the letter ballot should start around the start of June.
	10. **TGbi** (slide #58)
		1. The group met 4 times this week and discussed various submissions.
		2. No questions.
	11. **TGbk** (slide #62)
		1. The group completed the SFD development. D0.1 should be produced shortly.
		2. No questions.
	12. **UHR SG** (slide #68)
		1. There were 22 submissions this session that were discussed.
		2. The plan is to address PAR comments in July.
		3. No questions
	13. **AMP SG** (slide #70)
		1. There were 3 meetings of this new study group during the week.
		2. No questions.
	14. **AIML TIG** (slide #73)
		1. One of the discussions was about a contribution to the UHR SG. This will go ahead and be presented in July 2023. After that, the future of the TIG will be considered.
		2. No questions.
	15. **Question**
		1. Q: Is there an ITU ad-hoc report?
		2. A: No, as the ad-hoc has not met this week. The ITU is meeting at the same time. Therefore, there will be an update in July 2023.
8. **IEEE 802REVc status**
	1. This activity is progressing well.
	2. The next letter ballot will be later this summer on D2.0. (September 2023).
	3. No questions.
9. **Working Group Motions (Old Business)** (11-23-0586r4)
	1. **Motion 8: Approve P802.11REVme D3.0 for sale**
		1. **Approve making P802.11REVme D3.0 available for purchase from the IEEE Store.**
		2. Moved on behalf of TGme by Mike Montemurro, Second: Stuart Kerry
		3. Result: Yes: 64, No: 0, Abstain: 7 (Motion passes)
	2. **Motion 9: TGbe ad-hoc**
		1. **Approve a TGbe MAC (mixed mode) ad-hoc meeting on July 6-8, 2023, in Berlin, Germany, for the purpose of TGbe comment resolution and consideration of document submissions.**
		2. Moved on behalf of TGbe by Alfred Asterjadhi
		3. Result: Approved by unanimous consent (Motion passes)
		4. [TGbe result: Moved: Po-Kai Huang, 2nd: Hongyuan Zhang, Result: Unanimous]
	3. **Motion 10: TGbf ad-hoc**
		1. **Approve a TGbf ad-hoc meeting on July 6, 7, 8, 2023, in the Ericsson Office, Lund, Sweden for the purpose of TGbf comment resolution and consideration of document submissions.**
		2. Moved by Tony Han Xiao on behalf of TGbf
		3. Result: Approved by unanimous consent (Motion passes)
		4. [TGbf result: Moved: Claudio da Silva, 2nd: Rui Du, Result: Unanimous]
		5. Q: Can the host provide invitation letters to obtain visas?
		6. A: The host is looking into that at the moment.
		7. C: I think 10-20 people should attend in person. Please let Tony Han know if you wish to attend a require an invitation letter to obtain a visa.
		8. Q: Will it be a mixed-mode meeting?
		9. A: Yes
		10. C: As Sweden is part of the Schengen area, you may only require 1 visa for Sweden and then Germany.
		11. Chair: Please can you coordinate with Tony Xiao Han on this point.
		12. C: Please note that IEEE is not responsible for obtaining your visa for you.
10. **Any other Business (AoB)**
	1. None
11. **Wireless Chairs Meeting** (11-23-0620r1 slide #23)
	1. The next meeting is on June 14th, 2023 at 15:00 ET. Please contact the IEEE 802.11 WG chair or vice-chairs with a request for more information.
12. **Next Session**
	1. The proposed date of the next IEEE 802.11 WG session is July 9-14th, 2023 in Berlin, Germany, as a mixed mode session.
13. **Announcements**
	1. Chair: I would like to congratulate everyone who received an 11bd or 11ax award. I’d also like to thank Matthew Fischer for taking photographs.
14. **Adjournment**
	1. Having completed the agenda, the chair announced that the meeting was adjourned at 09:40 ET.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 75%?** | **Status** |
| --- | --- | --- | --- |
| Abad, Jose  | Maxlinear Inc.  | TRUE  | Aspirant |
| AbidRabbu, Shaima'  | Istanbul Medipol University; Vestel  | TRUE  | Potential Voter |
| Abouelseoud, Mohamed  | Apple Inc.  | TRUE  | Voter |
| Aboulmagd, Osama  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Adachi, Tomoko  | TOSHIBA Corporation  | TRUE  | Voter |
| Adhikari, Shubhodeep  | Broadcom Corporation  | TRUE  | Voter |
| Aio, Kosuke  | Sony Corporation  | TRUE  | Voter |
| Ajami, Abdel Karim  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Akhmetov, Dmitry  | Intel  | TRUE  | Voter |
| Alayedi, Mohanad  | Istanbul Medipol University, Vestel  | FALSE  | Non-Voter |
| Al-Baidhani, Amer  | NXP Semiconductors  | FALSE  | Voter |
| Aldana, Carlos  | Facebook  | FALSE  | Voter |
| Amalladinne, Vamsi  | Qualcomm Incorporated  | TRUE  | Voter |
| Ansley, Carol  | Cox Communications Inc.  | TRUE  | Voter |
| Anwyl, Gary  | MediaTek Inc.  | TRUE  | Voter |
| Asai, Yusuke  | NTT  | TRUE  | Voter |
| Asterjadhi, Alfred  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Au, Kwok Shum  | Huawei Technologies Co., Ltd  | TRUE  | ExOfficio |
| Awater, Geert  | Qualcomm Technologies Netherlands B.V.  | TRUE  | Voter |
| Baek, SunHee  | LG ELECTRONICS  | TRUE  | Voter |
| Bahn, Christy  | IEEE STAFF  | TRUE  | Voter |
| Bajko, Gabor  | MediaTek Inc.  | TRUE  | Voter |
| Balakrishnan, Hari Ram  | NXP Semiconductors  | TRUE  | Voter |
| Bansal, Priyanka  | NXP Semiconductors  | TRUE  | Potential Voter |
| Bao, Zhanjing  | TCL  | TRUE  | Potential Voter |
| Baron, stephane  | Canon Research Centre France  | TRUE  | Voter |
| Batra, Anuj  | Apple, Inc.  | TRUE  | Voter |
| Baykas, Tuncer  | Ofinno  | TRUE  | Voter |
| Beg, Chris  | Cognitive Systems Corp.  | TRUE  | Voter |
| Ben Arie, Yaron  | Toga Networks (A Huawei Company)  | TRUE  | Voter |
| Berger, Christian  | NXP Semiconductors  | TRUE  | Voter |
| Bhandaru, Nehru  | Broadcom Corporation  | TRUE  | Potential Voter |
| Bims, Harry  | Bims Laboratories, Inc.  | TRUE  | Voter |
| Boodannavar, Veerendra  | Apple Inc.  | TRUE  | Aspirant |
| Borges, Daniel  | Apple, Inc.  | TRUE  | Voter |
| Bower, Patricia  | HaiLa  | FALSE  | Non-Voter |
| Bredewoud, Albert  | Broadcom Corporation  | TRUE  | Voter |
| Burkhardt, Frank  | Fraunhofer IIS  | TRUE  | Voter |
| Canpolat, Necati  | Intel  | TRUE  | Potential Voter |
| Cao, Rui  | NXP Semiconductors  | TRUE  | Voter |
| Cariou, Laurent  | Intel  | TRUE  | Voter |
| Carney, William  | Sony Group Corporation  | TRUE  | Voter |
| Cavalcanti, Dave  | Intel  | TRUE  | Voter |
| Cepni, Gurkan  | Apple, Inc.  | TRUE  | Voter |
| Cha, Dongju  | LG ELECTRONICS  | TRUE  | Aspirant |
| Chan, Andy  | Infineon Technologies  | TRUE  | Potential Voter |
| Chang, Chen-Yi  | Mediatek  | TRUE  | Voter |
| Chaplin, Clint  | Self  | FALSE  | ExOfficio |
| Chappell, Matthew  | Cox Communications Inc.  | TRUE  | Voter |
| Chen, Cheng  | Intel  | TRUE  | Voter |
| Chen, Cheng-Ming  | Qualcomm Incorporated  | TRUE  | Voter |
| Chen, Xiaogang  | ZEKU Technologies  | TRUE  | Voter |
| Chen, You-Wei  | MediaTek Inc.  | TRUE  | Voter |
| Cheng, Ching-Chia  | MediaTek Inc.  | TRUE  | Aspirant |
| Cheng, Paul  | MediaTek Inc.  | TRUE  | Voter |
| cheng, phoebe  | MediaTek Inc.  | TRUE  | Voter |
| CHENG, yajun  | Xiaomi Communications Co., Ltd.  | TRUE  | Voter |
| CHERIAN, GEORGE  | Qualcomm Incorporated  | TRUE  | Voter |
| Chitrakar, Rojan  | Huawei International Pte Ltd  | FALSE  | Voter |
| Chiu, WenHsien  | MediaTek Inc.  | TRUE  | Voter |
| Choi, Jinsoo  | LG ELECTRONICS  | TRUE  | Voter |
| Chou, Tzu-Hsuan  | Qualcomm Incorporated  | TRUE  | Potential Voter |
| Chu, Liwen  | NXP Semiconductors  | TRUE  | Voter |
| CHUN, JINYOUNG  | LG ELECTRONICS  | TRUE  | Voter |
| Chung, Bruce  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Chung, Chulho  | SAMSUNG  | TRUE  | Voter |
| Ciochina, Dana  | Sony Corporation  | TRUE  | Voter |
| Coffey, John  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Contreras Albesa, Javier  | Cisco Systems, Inc.  | TRUE  | Aspirant |
| Cordeiro, Carlos  | Intel  | TRUE  | Voter |
| Costa, D.Nelson  | Peraso Technologies Incorporated  | TRUE  | Aspirant |
| da Silva, Claudio  | Meta Platforms Inc.  | TRUE  | Voter |
| Das, Dibakar  | Intel  | TRUE  | Voter |
| Das, Subir  | Peraton Labs  | TRUE  | ExOfficio |
| Dash, Debashis  | Apple, Inc.  | TRUE  | Voter |
| Davis, Mike  | Nordic Semiconductor ASA  | TRUE  | Aspirant |
| de Vegt, Rolf  | Qualcomm Incorporated  | TRUE  | Voter |
| DeLaOlivaDelgado, Antonio  | InterDigital, Inc.  | TRUE  | Voter |
| Derham, Thomas  | Broadcom Corporation  | TRUE  | Voter |
| DESMOULIN, Patrice  | Orange  | TRUE  | Voter |
| Ding, Yanyi  | Panasonic Corporation  | TRUE  | Voter |
| Dong, Xiandong  | Xiaomi Communications Co., Ltd.  | TRUE  | Voter |
| Du, Rui  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Du, Zhenguo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Duan, Ruchen  | Apple Inc.  | TRUE  | Voter |
| Eastlake 3rd, Donald  | Huawei Technologies Co., Ltd  | FALSE  | Non-Voter |
| Eitan, Alecsander  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| ElSherif, Ahmed  | Qualcomm Incorporated  | TRUE  | Voter |
| Emmelmann, Marc  | SELF  | TRUE  | Voter |
| Erceg, Vinko  | Broadcom Corporation  | TRUE  | Voter |
| Erkucuk, Serhat  | Ofinno  | TRUE  | Voter |
| Fang, Juan  | Intel  | TRUE  | Voter |
| Fang, Yonggang  | MediaTek Inc.  | TRUE  | Voter |
| feng, Shuling  | MediaTek Inc.  | TRUE  | Voter |
| Fischer, Matthew  | Broadcom Corporation  | TRUE  | Voter |
| Fletcher, Paul  | Samsung Cambridge Solution Center  | TRUE  | Voter |
| Gan, Ming  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gangur, Trivikram  | Infineon Technologies  | TRUE  | Voter |
| Gao, Ning  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Garg, Lalit  | Broadcom Corporation  | TRUE  | Voter |
| Gee, Thomas  | Qorvo  | TRUE  | Voter |
| Ghosh, Chittabrata  | Apple  | TRUE  | Voter |
| Gidvani, Ravi  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| Gilb, James  | General Atomics Aeronautical Systems, Inc.  | FALSE  | ExOfficio |
| Godfrey, Tim  | Electric Power Research Institute, Inc. (EPRI)  | FALSE  | ExOfficio |
| Gong, Bo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gorthi, Hemamali  | Infineon Technologies  | TRUE  | Voter |
| GOTO, Fumihide  | DENSO  | TRUE  | Voter |
| Gu, Xiangxin  | Unisoc (Shanghai) Technologies Co., Ltd.  | TRUE  | Voter |
| Guo, Jing  | NXP Semiconductors  | TRUE  | Voter |
| Guo, Yuchen  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Guo, Zheng  | NXP Semiconductors  | TRUE  | Voter |
| Guo, Ziyang  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Gupta, Binita  | Meta Platforms, Inc.  | TRUE  | Voter |
| Haasz, Jodi  | IEEE Standards Association (IEEE-SA)  | FALSE  | Non-Voter |
| Haider, Muhammad Kumail  | Meta Platforms Inc.  | TRUE  | Voter |
| Halasz, David  | Morse Micro  | TRUE  | Voter |
| hamidouche, kenza  | Apple Inc.  | TRUE  | Voter |
| Hamilton, Mark  | Ruckus/CommScope  | TRUE  | Voter |
| HAN, Xiao  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Handte, Thomas  | Sony Group Corporation  | TRUE  | Voter |
| Harkins, Daniel  | Aruba Networks, Inc.  | TRUE  | Voter |
| Hart, Brian  | Cisco Systems, Inc.  | TRUE  | Voter |
| Hawkes, Philip  | Qualcomm Incorporated  | FALSE  | Potential Voter |
| He, Chuanfeng  | Beijing OPPO telecommunications corp., ltd  | TRUE  | Voter |
| He, Ziming  | Samsung Cambridge Solution Centre  | TRUE  | Voter |
| Hedayat, Ahmadreza  | Apple Inc.  | TRUE  | Voter |
| Helmy, Ahmed  | Apple Inc.  | TRUE  | Aspirant |
| Henry, Jerome  | Cisco Systems, Inc.  | TRUE  | Voter |
| Hernandez, Marco  | National Institute of Information and Communications Technology (NICT)  | FALSE  | Voter |
| hervieu, Lili  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| Hiertz, Guido  | Ericsson GmbH  | TRUE  | Voter |
| Hirata, Ryuichi  | Sony Group Corporation  | TRUE  | Voter |
| Ho, Duncan  | Qualcomm Incorporated  | TRUE  | Voter |
| Hsiao, Ching-Wen  | MediaTek Inc.  | TRUE  | Voter |
| Hsieh, Hung-Tao  | MediaTek Inc.  | TRUE  | Voter |
| Hsu, Chien-Fang  | MediaTek Inc.  | TRUE  | Voter |
| Hsu, Ostrovsky  | Xiaomi Communications Co., Ltd.  | TRUE  | Voter |
| Hu, Chunyu  | Facebook  | TRUE  | Voter |
| Hu, Mengshi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Hu, Shengquan  | MediaTek Inc.  | TRUE  | Voter |
| HUANG, CHIHAN  | MediaTek Inc.  | TRUE  | Voter |
| Huang, Guogang  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| huang, kaikai  | Nokia  | TRUE  | Aspirant |
| Huang, Lei  | Huawei International Pte Ltd  | FALSE  | Voter |
| Huang, Po-Kai  | Intel  | TRUE  | Voter |
| Huang, Qisheng  | ZTE Corporation  | TRUE  | Voter |
| Huq, Kazi Mohammed Saidul  | NO AFFILIATION  | TRUE  | Voter |
| Hwang, Sung Hyun  | Electronics and Telecommunications Research Institute (ETRI)  | TRUE  | Voter |
| Inohiza, Hirohiko  | Canon  | TRUE  | Voter |
| Jang, Insun  | LG ELECTRONICS  | TRUE  | Voter |
| Jeffries, Timothy  | Futurewei Technologies  | TRUE  | Voter |
| Jen, Elliot YuChih  | Samsung Research America  | TRUE  | Voter |
| Jeon, Eunsung  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| JEONG, DAWOON  | TTA  | TRUE  | Aspirant |
| Ji, Chenhe  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| jiang, feng  | Apple Inc.  | TRUE  | Voter |
| Jiang, Jinjing  | Apple, Inc.  | TRUE  | Voter |
| John, Toby  | Verizon  | TRUE  | Voter |
| Jones, Allan  | Activision  | TRUE  | Voter |
| Jones, Vincent Knowles IV  | Qualcomm Incorporated  | TRUE  | Voter |
| Jung, Insik  | LG ELECTRONICS  | TRUE  | Voter |
| Jungnickel, Volker  | Fraunhofer HHI  | FALSE  | Voter |
| Kain, Carl  | USDOT; Noblis, Inc.  | TRUE  | Voter |
| Kakani, Naveen  | Qualcomm Incorporated  | TRUE  | Voter |
| Kamel, Mahmoud  | InterDigital, Inc.  | TRUE  | Voter |
| Kancherla, Sundeep  | Infineon Technologies  | TRUE  | Voter |
| Kandala, Srinivas  | SAMSUNG  | TRUE  | Voter |
| Kang, HaoHua  | MediaTek Inc.  | TRUE  | Voter |
| KANG, Kyu-Min  | Electronics and Telecommunications Research Institute (ETRI)  | TRUE  | Voter |
| Karmuchi, Shailender  | SAMSUNG ELECTRONICS  | TRUE  | Potential Voter |
| Kasargod, Sudhir  | Infineon Technologies  | TRUE  | Voter |
| Kasher, Assaf  | Qualcomm Incorporated  | TRUE  | Voter |
| Kennedy, Richard  | Bluetooth SIG  | TRUE  | Voter |
| Kerry, Stuart  | OK-Brit; Self  | TRUE  | Voter |
| Kezys, Vytas  | HaiLa Inc  | TRUE  | Voter |
| Khan, Naseem  | Leidos Engineering. LLC  | TRUE  | Voter |
| KIM, DONGWAN  | Broadcom Corporation  | TRUE  | Voter |
| Kim, Geon Hwan  | LG ELECTRONICS  | TRUE  | Potential Voter |
| Kim, Jeongki  | Ofinno  | TRUE  | Voter |
| Kim, Myeong-Jin  | SAMSUNG  | TRUE  | Voter |
| Kim, Sang Gook  | LG ELECTRONICS  | TRUE  | Voter |
| Kim, Sanghyun  | WILUS Inc.  | TRUE  | Voter |
| Kim, Yongho  | Korea National University of Transportation  | TRUE  | Voter |
| Kim, Youhan  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Kipness, Michael  | IEEE STAFF  | TRUE  | Aspirant |
| Kishida, Akira  | Nippon Telegraph and Telephone Corporation (NTT)  | TRUE  | Voter |
| Kitazawa, Shoichi  | Muroran IT  | TRUE  | Voter |
| Klein, Arik  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| KNECKT, JARKKO  | Apple, Inc.  | TRUE  | Voter |
| Koundourakis, Michail  | Samsung Cambridge Solution Center  | TRUE  | Voter |
| Krebs, Alexander  | Apple Inc; Apple Inc.  | TRUE  | Voter |
| Ku, Chung-Ta  | Mediatek Inc  | TRUE  | Voter |
| Kumar, Manish  | NXP Semiconductors  | TRUE  | Voter |
| Kuo, Chih-Chun  | MediaTek Inc.  | TRUE  | Voter |
| Lalam, Massinissa  | SAGEMCOM SAS  | TRUE  | Voter |
| Lan, Zhou  | Apple Inc.  | TRUE  | Voter |
| Lanante, Leonardo  | Ofinno  | TRUE  | Voter |
| Lansford, James  | Qualcomm Incorporated; University of Colorado at Boulder  | TRUE  | Voter |
| Lee, Hong Won  | LG ELECTRONICS  | FALSE  | Aspirant |
| Lee, Il-Gu  | Sungshin University  | TRUE  | Aspirant |
| LEE, JOONSOO  | Newracom Inc.  | TRUE  | Potential Voter |
| Lee, Wookbong  | Apple Inc.  | TRUE  | Voter |
| Levy, Joseph  | InterDigital, Inc.  | TRUE  | Voter |
| Li, Bo  | Northwestern Polytechnical University  | TRUE  | Voter |
| Li, Guoqing  | Meta  | TRUE  | Aspirant |
| Li, Jialing  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Li, Qinghua  | Intel  | TRUE  | Voter |
| Li, Weiyi  | Spreadtrum  | TRUE  | Potential Voter |
| Li, Yan  | ZTE Corporation  | TRUE  | Voter |
| Li, Yapu  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Li, Ying  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Li, Yuan  | ZTE Corporation  | TRUE  | Aspirant |
| li, yun  | ZTE Corporation  | FALSE  | Non-Voter |
| Li, Yunbo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lim, Dong Guk  | LG ELECTRONICS  | TRUE  | Voter |
| Lin, Hsin-De  | MediaTek Inc.  | TRUE  | Voter |
| Lin, Wei  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lin, Zinan  | InterDigital, Inc.  | TRUE  | Voter |
| LIU, CHENCHEN  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Liu, Der-Zheng  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Liu, Jeff  | Broadcom Corporation  | TRUE  | Voter |
| Liu, Jianhan  | MediaTek Inc.  | TRUE  | Voter |
| Liu, Peng  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Liu, Ying  | NXP Semiconductors  | TRUE  | Voter |
| Liu, Yong  | Apple, Inc.  | FALSE  | Voter |
| Lorgeoux, Mikael  | Canon Research Centre France  | TRUE  | Voter |
| Lou, Hanqing  | InterDigital, Inc.  | TRUE  | Voter |
| Lou, Hui-Ling  | NXP Semiconductors  | TRUE  | Voter |
| Lovison, Federico  | Cisco Systems, Inc.  | TRUE  | Potential Voter |
| Lu, Kaiying  | MediaTek Inc.  | TRUE  | Voter |
| Lu, Liuming  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Luo, Chaoming  | Beijing OPPO telecommunications corp., ltd.  | TRUE  | Voter |
| LUO, YE  | Nokia  | TRUE  | Aspirant |
| Luo, Yuanqiu  | Futurewei Technologies  | TRUE  | Aspirant |
| Ma, Li  | MediaTek Inc.  | TRUE  | Voter |
| Ma, Yongsen  | SAMSUNG ELECTRONICS  | TRUE  | Potential Voter |
| Ma, Yunsi  | HiSilicon (Shanghai) Technologies Co., LTD.  | TRUE  | Voter |
| Madni, Haji Muhammad  | Vestel  | TRUE  | Aspirant |
| Maguluri, Anilkumar  | Synaptics  | TRUE  | Potential Voter |
| Malinen, Jouni  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| MAO, ZHI  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Max, Sebastian  | Ericsson AB  | TRUE  | Voter |
| Mccann, Stephen  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Mehrnoush, Morteza  | Apple Inc  | TRUE  | Voter |
| Mehta, Mehul  | Pharrowtech BV  | TRUE  | Potential Voter |
| MELZER, Ezer  | Toga Networks, a Huawei company  | TRUE  | Voter |
| Minayi Jalil, Amir  | Aerial Technologies  | FALSE  | Non-Voter |
| Minotani, Jun  | Panasonic Corporation  | TRUE  | Voter |
| Mirfakhraei, Khashayar  | Zeku  | TRUE  | Potential Voter |
| Miwa, Shinya  | Canon Research Centre France  | TRUE  | Potential Voter |
| Monajemi, Pooya  | Apple Inc.  | TRUE  | Voter |
| Montemurro, Michael  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Montreuil, Leo  | Broadcom Corporation  | TRUE  | Voter |
| Moon, Juseong  | Korea National University of Transportation  | TRUE  | Voter |
| Morioka, Hitoshi  | SRC Software  | TRUE  | Voter |
| Motozuka, Hiroyuki  | Panasonic Holdings Corporation  | TRUE  | Voter |
| Mukkapati, Lakshmi Narayana  | Wi-Fi Alliance  | FALSE  | Voter |
| Mutgan, Okan  | Nokia  | TRUE  | Voter |
| Nagai, Yukimasa  | Mitsubishi Electric Corporation  | FALSE  | Aspirant |
| Naik, Gaurang  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Nam, Junyoung  | Qualcomm Incorporated  | TRUE  | Voter |
| Namvar, Nima  | Charter Communications  | TRUE  | Voter |
| Nandagopalan, SAI SHANKAR  | Synaptics  | TRUE  | Voter |
| Narengerile, Narengerile  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Nayak, Peshal  | Samsung Research America  | TRUE  | Voter |
| Nezou, Patrice  | Canon Research Centre France  | TRUE  | Voter |
| Ng, Boon Loong  | Samsung Research America  | TRUE  | Voter |
| Nguyen, An  | DHS/CISA  | TRUE  | Voter |
| Noh, Si-Chan  | Newracom Inc.  | TRUE  | Potential Voter |
| Ohmoto, Ryutaro  | Nihon Dengyo Kosaku Co. Ltd.  | TRUE  | Voter |
| Orr, Stephen  | Cisco Systems, Inc.  | TRUE  | Voter |
| Pakrooh, Pooria  | Qualcomm Incorporated  | TRUE  | Aspirant |
| Palayur, Saju  | Maxlinear Inc.  | TRUE  | Voter |
| Pandey, Sheetal  | Synaptics Inc.  | TRUE  | Voter |
| Pare, Thomas  | MediaTek Inc.  | TRUE  | Voter |
| Park, Eunsung  | LG ELECTRONICS  | TRUE  | Voter |
| Park, Minyoung  | Intel  | TRUE  | Voter |
| Park, Sungjin  | Senscomm  | TRUE  | Voter |
| Patil, Abhishek  | Qualcomm Incorporated  | TRUE  | Voter |
| Patil, Sandhya  | Synaptics Inc  | TRUE  | Aspirant |
| Patwardhan, Gaurav  | Hewlett Packard Enterprise  | TRUE  | Voter |
| Peng, Lan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Peng, Ronny  | MediaTek Inc.  | TRUE  | Voter |
| Perahia, Eldad  | Hewlett Packard Enterprise  | TRUE  | Voter |
| Petrick, Albert  | InterDigital, Inc.  | TRUE  | Voter |
| Petry, Brian  | Broadcom Corporation  | TRUE  | Voter |
| Pettersson, Charlie  | Ericsson AB  | TRUE  | Voter |
| Porat, Ron  | Broadcom Corporation  | TRUE  | Voter |
| Pottigari, Sachin  | NXP Semiconductors  | TRUE  | Potential Voter |
| Pulikkoonattu, Rethnakaran  | Broadcom Corporation  | TRUE  | Voter |
| Qi, Emily  | Intel  | TRUE  | Voter |
| Qi, Yinan  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Qi, Yue  | Samsung Research America  | TRUE  | Voter |
| QIAN, BIN  | Huawei Technologies Co., Ltd  | FALSE  | Non-Voter |
| Quan, Yingqiao  | Unisoc  | TRUE  | Voter |
| Rafique, Saira  | Istanbul Medipol University, Vestel  | TRUE  | Voter |
| Rai, Kapil  | Qualcomm Incorporated  | TRUE  | Voter |
| Raissinia, Alireza  | Qualcomm Incorporated  | TRUE  | Voter |
| Randall, Karen  | Randall Consulting  | FALSE  | Non-Voter |
| Ratnam, Vishnu  | Samsung Research America  | TRUE  | Voter |
| Redlich, Oded  | Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Redmore, Josh  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Potential Voter |
| Regev, Dror  | Toga Networks (A Huawei Company)  | TRUE  | Voter |
| REICH, MOR  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Rezk, Meriam  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Riegel, Maximilian  | Nokia  | TRUE  | Voter |
| Rison, Mark  | Samsung Cambridge Solution Centre  | TRUE  | Voter |
| Robert, Joerg  | Fraunhofer IIS; Technische Universitaet Ilmenau  | TRUE  | Voter |
| Rodriguez, Stephen  | Cisco Systems, Inc.  | TRUE  | Potential Voter |
| Rosdahl, Jon  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Roy, Sayak  | NXP Semiconductors  | TRUE  | Voter |
| Ryu, Kiseon  | NXP Semiconductors  | TRUE  | Voter |
| Salem, Mohamed  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sambasivan, Sam  | AT&T  | TRUE  | Voter |
| Sand, Stephan  | German Aerospace Center (DLR)  | TRUE  | Voter |
| sanderovich, Amichai  | Wiliot Ltd  | TRUE  | Potential Voter |
| Santra, Avik  | Infineon Technologies  | TRUE  | Potential Voter |
| Sato, Takuhiro  | SHARP CORPORATION  | TRUE  | Voter |
| Schelstraete, Sigurd  | MaxLinear  | TRUE  | Voter |
| Schweizer, Benedikt  | Apple Inc.  | TRUE  | Voter |
| Segev, Jonathan  | Intel; Intel Corporation  | TRUE  | Voter |
| Seguine, Ryan  | Infineon Technologies  | TRUE  | Potential Voter |
| Seo, Sangho  | Broadcom Corporation  | TRUE  | Voter |
| Seok, 4  | MediaTek Inc.  | FALSE  | Non-Voter |
| Seok, Yongho  | MediaTek Inc.  | TRUE  | Voter |
| Serizawa, Kazunobu  | Advanced Telecommunications Research Institute International (ATR)  | TRUE  | Voter |
| Sevin, Julien  | Canon Research Centre France  | TRUE  | Voter |
| Shafin, Rubayet  | Samsung Research America  | TRUE  | Voter |
| Shaw, Amit  | Infineon Technologies  | TRUE  | Voter |
| Shellhammer, Stephen  | Qualcomm Incorporated  | FALSE  | ExOfficio |
| Shen, Andy  | Futurewei Technologies  | TRUE  | Voter |
| Sherlock, Ian  | Texas Instruments Inc.  | TRUE  | Voter |
| Shilo, Shimi  | Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Shirakawa, Atsushi  | SHARP CORPORATION  | TRUE  | Voter |
| siaud, isabelle  | Orange  | FALSE  | Voter |
| Smith, Graham  | SR Technologies  | FALSE  | Voter |
| Smith, Luther  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| Son, Ju-Hyung  | WILUS Inc.  | TRUE  | Voter |
| Song, Hao  | Intel Corporation  | TRUE  | Voter |
| Sood, Ayush  | Infineon Technologies  | TRUE  | Voter |
| Srivatsa, Veena  | Synaptics  | TRUE  | Voter |
| Stacey, Robert  | Intel  | TRUE  | Voter |
| Stanley, Dorothy  | Hewlett Packard Enterprise  | TRUE  | Voter |
| Stott, Noel  | Keysight Technologies  | TRUE  | Voter |
| Strauch, Paul  | Qualcomm Incorporated  | TRUE  | Voter |
| Strobel, Rainer  | MaxLinear  | TRUE  | Potential Voter |
| Su, Hang  | Broadcom Corporation  | TRUE  | Voter |
| Suh, JUNG HOON  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sumi, Takenori  | Mitsubishi Electric Corporation  | TRUE  | Voter |
| Sun, Bo  | Sanechips  | TRUE  | Voter |
| Sun, Jiaqi  | China Mobile (Hangzhou) Information Technology Co., Ltd.  | TRUE  | Voter |
| Sun, Li-Hsiang  | MediaTek Inc.  | FALSE  | Voter |
| Sun, Yanjun  | Qualcomm Incorporated  | TRUE  | Voter |
| SURACI, FRANK  | U.S. Department of Homeland Security  | TRUE  | Voter |
| SUZUKI, Shuntaro  | Yamaha Corporation  | TRUE  | Aspirant |
| Talha, Mohd.  | NXP Semiconductors  | TRUE  | Potential Voter |
| Tanaka, Yusuke  | Sony Group Corporation  | TRUE  | Voter |
| Tang, Zhuqing  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Taori, Rakesh  | Infineon Technologies  | TRUE  | Voter |
| Thakur, Sidharth  | Apple Inc.  | TRUE  | Voter |
| Thiagarajan, Ganesan  | Morse Micro  | TRUE  | Potential Voter |
| Thota, Sri Ramya  | Infineon Technologies  | TRUE  | Voter |
| Tian, Bin  | Qualcomm Incorporated  | FALSE  | Voter |
| Tomeba, Hiromichi  | SHARP CORPORATION  | TRUE  | Voter |
| Tsai, Tsung-Han  | MediaTek Inc.  | TRUE  | Voter |
| Tsodik, Genadiy  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Uln, Kiran  | Infineon Technologies  | TRUE  | Voter |
| Urabe, Yoshio  | Panasonic Holdings Corporation  | TRUE  | Voter |
| Val, Inaki  | MaxLinear, Inc.  | TRUE  | Voter |
| Van Nee, Richard  | Qualcomm Technologies Netherlands BV  | TRUE  | Voter |
| Van Zelst, Allert  | Qualcomm Technologies Netherlands B.V.  | TRUE  | Voter |
| Verma, Lochan  | Apple, Inc.  | TRUE  | Voter |
| Verma, Sindhu  | Broadcom Corporation  | TRUE  | Voter |
| Vermani, Sameer  | Qualcomm Incorporated  | TRUE  | Voter |
| Wang, Chao Chun  | MediaTek Inc.  | TRUE  | Voter |
| Wang, Hao  | Tencent  | TRUE  | Voter |
| Wang, Hejun  | Haier Group Corporation  | TRUE  | Voter |
| Wang, Huizhao  | NXP Semiconductors  | FALSE  | Voter |
| Wang, Jue  | ZTE Corporation  | TRUE  | Aspirant |
| Wang, Lei  | Futurewei Technologies  | TRUE  | Voter |
| Wang, Pu  | Mitsubishi Electric Research Labs (MERL)  | TRUE  | Potential Voter |
| Wang, Qi  | Apple, Inc.  | TRUE  | Voter |
| Wang, Steven Qi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Wang, Xiaofei  | InterDigital, Inc.  | TRUE  | Voter |
| Wang, Yi-Hsiu  | Zeku  | TRUE  | Voter |
| Wang, Zisheng  | ZTE Corporation  | TRUE  | Voter |
| Want, Roy  | Google  | TRUE  | Voter |
| Ward, Lisa  | Rohde & Schwarz  | TRUE  | Voter |
| Wei, Dong  | NXP Semiconductors  | TRUE  | Voter |
| Wei, Hung-Yu  | National Taiwan University  | TRUE  | Voter |
| Wendt, Matthias  | Signify  | FALSE  | Voter |
| Wentink, Menzo  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Wilhelmsson, Leif  | Ericsson AB  | TRUE  | Voter |
| Wilson, James  | Qorvo  | TRUE  | Aspirant |
| Wu, Chao-Yi  | SAMSUNG ELECTRONICS  | TRUE  | Potential Voter |
| Wu, Kanke  | Qualcomm Incorporated  | TRUE  | Voter |
| Wu, Tianyu  | Apple, Inc.  | TRUE  | Voter |
| Wu, Wayne  | MediaTek Inc.  | TRUE  | Voter |
| Wullert, John  | Peraton Labs  | TRUE  | Voter |
| Xia, Qing  | Sony Corporation  | TRUE  | Voter |
| Xiao, Bo  | ZTE Corporation  | TRUE  | Voter |
| Xin, Liangxiao  | IEEE member / Self Employed  | TRUE  | Voter |
| Xin, Yan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Xu, Fangxin  | Longsailing Semiconductor  | TRUE  | Voter |
| Xu, Weijie  | Beijing OPPO telecommunications corp., ltd.  | TRUE  | Voter |
| Xu, Yue  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Yamada, Ryota  | SHARP CORPORATION  | TRUE  | Voter |
| Yan, Aiguo  | Zeku  | TRUE  | Voter |
| Yan, Min  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Yan, Peng  | Wi-Fi Alliance  | TRUE  | Voter |
| Yan, Zhongjiang  | Northwestern Polytechnical University  | TRUE  | Voter |
| Yang, Jay  | ZTE  | TRUE  | Voter |
| Yang, Lin  | Qualcomm Incorporated  | TRUE  | Voter |
| Yang, Mao  | Northwestern Polytechnical University  | TRUE  | Voter |
| YANG, RUI  | InterDigital, Inc.  | TRUE  | Voter |
| Yang, Steve TS  | MediaTek Inc.  | TRUE  | Voter |
| Yang, Xun  | Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Yano, Kazuto  | Advanced Telecommunications Research Institute International (ATR)  | TRUE  | Voter |
| yaodong, zhang  | ZTE Corporation  | TRUE  | Aspirant |
| Yee, James  | MediaTek Inc.  | TRUE  | Voter |
| Yee, Peter  | NSA-CSD  | TRUE  | Voter |
| Yi, Yongjiang  | Spreadtrum Communication USA, Inc  | TRUE  | Voter |
| Yong, Su Khiong  | Apple, Inc.  | FALSE  | Voter |
| Yoon, Kangjin  | Meta Platforms Inc.  | TRUE  | Potential Voter |
| Yoon, Yelin  | LG ELECTRONICS  | TRUE  | Voter |
| Young, Christopher  | Broadcom Corporation  | TRUE  | Voter |
| Yu, Heejung  | Korea University  | TRUE  | Aspirant |
| Yu, Jian  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zeng, Ruochen  | Apple, Inc.  | TRUE  | Voter |
| Zhang, Hongyuan  | NXP Semiconductors  | TRUE  | Voter |
| zhang, jianlong  | ZTE Corporation  | TRUE  | Aspirant |
| Zhang, Jiayi  | Ofinno  | TRUE  | Voter |
| Zhang, Rong  | NXP Semiconductors  | TRUE  | Voter |
| Zhang, Yan  | Apple Inc.  | TRUE  | Voter |
| Zhang, Yiyan  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Zhao, Yue  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Zhou, Lei  | H3C Technologies Co., Limited  | TRUE  | Voter |
| Zhou, Pei  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Zuniga, Juan Carlos  | Cisco Systems, Inc.  | TRUE  | Voter |
| Zuo, Zhisong  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |

**Annex B : Working Group Officers**

**Working Group**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Dorothy Stanley(HP Enterprise) | IEEE 802.11 Working Group Chair | +1( 630) 363-1389 dstanley@ieee.org |
| Jon Rosdahl(Qualcomm) | 1st Vice Chair (Venues and meeting planning)Treasurer | +1 (801) 492-4023jrosdahl@ieee.org |
| Robert Stacey(Intel Corporation) | 2nd Vice Chair (Rules and reflectors)IEEE 802 (LMSC) EC delegate | +1 (503) 712 4447robert.stacey@intel.com |
| Stephen McCann(Huawei Technologies Co., Ltd) | Secretary | stephen.mccann@ieee.org |
| Robert Stacey(Intel Corporation) | Co-Technical Editor802.11 Assigned Numbers Authority | +1 (503) 712 4447robert.stacey@intel.com |

**Standing Committees**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jim Lansford(Qualcomm) | Wireless Next Generation (WNG) Standing Committee Chair | +1-719-286-8660jim.lansford@ieee.org |
| Mark Hamilton(Ruckus Wireless) | Architecture (ARC) Standing Committee Chair | +1 (303) 818-8472mark.hamilton2152@gmail.com |
| Jon Rosdahl(Qualcomm) | Project Authorization Request (PAR) Standing Committee Chair | +1 (801) 492-4023jrosdahl@ieee.org |
| Marc Emmelmann(Self) | Coexistence (Coex) Standing Committee Chair | marc.emmelmann@me.com  |

**Task Groups**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jonathan Segev (Intel Corporation) | TGaz ChairNext Generation Positioning (NGP) | +972-54-2403587jonathan.segev@intel.com |
| Nikola Serafimovski (pureLiFi) | TGbb ChairLight Communication (LC) | +44 131 516 1816nikola.serafimovski@purelifi.com  |
| Marc Emmelmann (Self) | TGbc ChairBroadcast Services (BCS) | marc.emmelmann@me.com |
| Bo Sun (Sanechips) | TGbd ChairNext Generation V2X (NGV) | sun.bo1@sanechips.com.cn  |
| Alfred Asterjadhi(Qualcomm) | TGbe ChairExtremely High Throughput (EHT) | aasterja@qti.qualcomm.com |
| Tony Xiao Han(Huawei Technologies Co., Ltd) | TGbf ChairWLAN Sensing (SENS) | tony.hanxiao@huawei.com  |
| Mark Hamilton(Ruckus/CommScope Wireless) | TGbh ChairRandom and Changing MAC address (RCM) | +1 (303) 818-8472mark.hamilton2152@gmail.com |
| Carol Ansley(Cox Communications) | TGbi ChairEnhanced Data Privacy (EDP) | carol@ansley.com  |
| Michael Montemurro (Huawei Technologies Co., Ltd) | TGme Chair802.11 revision project - P802.11REVme | montemurro.michael@gmail.com  |
| Jonathan Segev (Intel Corporation) | TGbk Chair320 MHz Positioning | +972-54-2403587jonathan.segev@intel.com |

|  |
| --- |
|  |

**Study Groups (SG) & Topic Interest Groups (TIG)**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation)  | Position | Contact Details |
| Xiaofei Wang(InterDigital) | Artificial Intelligence/Machine Learning (AIML) TIG | Xiaofei.Wang@interdigital.com  |
| Bo Sun(Sanechips) | Ambient Power IoT (AMP) TIG | sun.bo1@sanechips.com.cn  |
| Laurent Cariou (Intel) | Ultra High Reliability (UHR) SG | laurent\_cariou@yahoo.fr  |

**Ad-Hoc Groups (AHG)**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation)  | Position | Contact Details |
| Hassan YAGHOOBI(Intel) | ITU Ad-Hoc | hassan.yaghoobi@intel.com  |

**Liaison Officials to non-IEEE 802 organizations**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Peter Yee(Akayla) | Liaison to IETF(Internet Engineering Task Force) | peter@akayla.com |
| Carlos Cordeiro(Intel) | Liaison to WFA(Wi-Fi Alliance) | carlos.cordeiro@intel.com  |

**Liaison Officials to IEEE organizations**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jonathan Segev (Intel Corporation) | Liaison to IEEE 802.15 | jonathan.segev@intel.com  |
| Edward Au(Huawei Technologies Co., Ltd) | Liaison to IEEE 802.18 | edward.ks.au@gmail.com  |
| Tuncer Baykas(Ofinno) | Liaison to IEEE 802.19 | tbaykas@ieee.org  |
| John Kenney(Toyota) | Liaison to IEEE 1609 | jkenney@us.toyota-itc.com  |

**Annex C : Minutes**

This Annex contains references to all IEEE 802.11 SC/TG/SG & Ad Hoc Committee (AHC) minutes from this session. Please note that they are NOT subject to the approval of these minutes, but are confirmed and approved by their individual group in the opening meeting at their next session.

|  |  |  |
| --- | --- | --- |
| WG | TE | 23-0886r0 |
| TGme | TG | 23-0863r0 |
| TGbe | TG | 23-0849r0 |
| TGbf | TG | 23-0900r0 |
| TGbh | TG | 23-0857r1 |
| TGbi | TG | 23-0903r1 |
| TGbk | TG | 23-0963r0 |
| COEX | SC | 23-0894r0 |
| WNG | SC | 23-0866r0 |
| JTC 802 | SC | 23-0960r0 |
| ARC | SC | 23-0651r0 |
| PAR | SC | Did not meet |
| AIML | TIG | 23-0953r0 |
| AMP | TIG | 23-0939r0 |
| UHR  | SG | 23-0785r1 |
| ITU | AHC | Did not meet |

**Annex D : Revisions and Standards Pipeline**

******

******

**IEEE 802.11 Standards Pipeline**

End.