IEEE P802.11
Wireless LANs

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| Minutes of the IEEE P802.11 Full Working Group |
| Date: 2022-08-05 |
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Abstract

This document constitutes the minutes of the IEEE 802.11 full working group for the July 2022 session.

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

**Abbreviations:**

A: Answer

C: Comment

Q: Question

**IEEE 802.11 Plenary Session #194**

**July 11th – 15th, 2022**

**IEEE 802.11 Opening Plenary, Monday July 11th 2022**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 10:33 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 511 Voters and 11 Ex Officio voters of IEEE 802.11\*

There were 287 people in the meeting (Webex), with 123 attending in person (in the room) and 402 on the IMAT attendance server.

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

1. **Notices** (11-22-0834r0 slide #3)
	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 IEEE-SA Staff representative for IEEE 802.11.
		2. Vanessa Lalitte
	4. Please note that this session requires a registration fee to be paid.
2. **Approve/modify working group agenda** (11-22-0833r1)
	1. This is a summary of the meeting today. Please note the schedule for this session on the separate tab “Schedule”.
	2. Chair: I suggest we approve this agenda.
	3. **Move to approve the agenda 11-22-0833r1 for the Monday opening plenary**
		1. Moved: Stuart Kerry, 2nd: Marc Emmelmann
		2. No objection to approving by unanimous consent
3. **May 2022 WG Minutes**
	1. **Move to approve the May 2022 WG minutes document 11-22-0720r1**
	2. Moved: Stephen McCann, 2nd: Jon Rosdahl
	3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **New Attendees** (11-22-0597r0 slide #4)
	1. Straw Poll:
	2. **Are you a new attendee to IEEE 802.11?**
		1. Yes: 14
		2. No: 155
		3. No answer: 0
	3. There is a new members’ meeting on Tuesday July 12th at 10:30 ET. This is a tutorial for those new members to learn about IEEE 802.11.
5. **Call for essential Patents** (11-22-0856r0)
	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** (11-22-0856r0)
	1. The slides about IEEE 802 meeting participation and IEEE SA copyright were also read.
	2. Expected participant behavior was also announced.
	3. VC2: Please note the slide about voting in letter ballots (slide #20) and also the valid abstain response in ballots and also all Voters’ obligations to respond to ballots (slide #21).
	4. Chair: Recently there have been an IEEE 802.11-2022 COR-1 (series length 2) and LB266, a P802.11be letter ballot that had a series length of 1. There are several people who did not vote on either of these ballots and therefore they may lose their voting rights. The update to the voters list will be made after this July meeting, so that your attendance this week will be applied after any loss of voting rights.
	5. Q: Regarding the letter ballots, how many can you miss to maintain your voting rights?
	6. A: You can miss 1 out of the last 3 letter ballot series.
7. **Announcements** (11-22-0834r0)
	1. **Liaisons** (slide #4)
		1. Chair: There was 1 incoming liaison from ETSI TC ITS requesting a copy of P802.11bd D4.0. I have responded to this liaison.
	2. **EC and IEEE-SA standard board decisions** (slides #5 and #6)
		1. Chair: The EC and IEEE-SA approved the items on the slides.
	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 NENDICA Industry Connections Activity and IEEE 802 JTC1 SC.
8. **Logistics and Key events/activities** (11-22-0859r1)
	1. **Logistics** (slides #5 - #9)
		1. There’s information about the room allocations within the hotel.
		2. Please note that the breakfast for Friday will be in a different location.
		3. There is a social event on Wednesday evening at 18:30 ET.
		4. For lunch there are various options as shown on slide #8.
		5. **Straw Poll**
			1. **If you will be at one of the three meetings on Friday**
			2. **(802 EC Closing Plenary, the 802.11 Closing Plenary or the 802.1 " IEC/IEEE 60802" meeting) will you participate (eat/drink):**
			3. **With breakfast:** 72
			4. **AM break:** 58
			5. **PM break:** 13
	2. **Mixed mode meeting this week** (slide #10)
		1. Please note the changes regarding this week’s mixed mode meeting.
		2. Please can local attendees not attach to the webex audio, as the in-room audio system is being provided using local equipment for the room.
	3. **Attendance** (slide #11)
		1. Remember that you need to record 12 slots [later correction – 9 slots needed] to meet your 75% attendance credit this week.
		2. This slide shows information about other WG meetings, future meetings and logistics during this plenary.
		3. Please use the online schedule at the IEEE 802 website for the online meeting times during this plenary. It can be adjusted to show times in your own time zone.
		4. Please remember to record your attendance for each slot during this plenary, using the IMAT tool: <https://imat.ieee.org/802.11>
	4. **Social** (slide #14)
		1. Please note that Tourism Montreal is helping to sponsor some of the social this week.
	5. **Health and safety** (slide #15)
		1. Please note the advice on this slide, especially if you feel sick.
	6. **Registration** (slide #17)
		1. You must have registered to attend this meeting.
		2. Please note that after 60 days, individuals who have not paid their registration fees loose most of their rights, including attending further IEEE 802 meetings. Once they have paid, they can re-attend.
		3. Chair: There is one exception to paying the registration fee. This is if you are an expert on a specific topic, such as some university experts who will be presenting in WNG SC this week.
9. **Status of all sub-groups** (11-22-0834r0)
	1. **Sub-groups summary** (slides #12 - #13)
		1. Chair: This is a review of the current IEEE 802.11 groups. There are 3 PARs that need PAR extension requests this year, P802.11bb, P802.11bc and P802.11bd.
	2. **Sub-Group Officer Status** (slide #14)
		1. Chair: I would like to acknowledge all the assistance from the volunteers mentioned on this slide.
	3. **Summary of Ballots** (slide #17)
		1. This is a list of the IEEE 802.11 ballots and comment collections since the May 2022 session.
10. **Timelines**
	1. <https://www.ieee802.org/11/Reports/802.11_Timelines.htm>
	2. No questions
11. **Group Summaries** (11-22-0857r0)
	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 ET on Tuesday morning. Other topics include the ANA status (11-11-0270r62).
		2. No questions
	3. **ARC SC** (slide #5)
		1. There has been 1 teleconference since the May 2022 meeting, discussing various architecture topics.
		2. There are 3 meetings in this session.
		3. No questions
	4. **Coex** **SC** (slide #7)
		1. This standing committee will meet once this session.
		2. No questions
	5. **PAR** **SC** (slide #9)
		1. There are 9 PARs for consideration this week.
		2. No questions
	6. **WNG** (slide #10)
		1. There are 10 presentations planned for this session in 3 meetings.
		2. No questions
	7. **JTC1** **SC** (slide #11)
		1. There is 1 meeting during this session.
		2. No questions
	8. **REVme** (slide #14)
		1. The objective for this session is to continue considering comments from the D1.0 letter ballot (LB258).
		2. No questions
	9. **TGaz** (slide #15)
		1. The group is progressing work to resolve comments received in the initial SA ballot.
		2. There will also be a discussion about future support for 320 MHz ranging.
		3. No questions
	10. **TGbb** (slide #18)
		1. The group hopes to resolve comments from the recently completed D2.1 comment collection.
		2. No questions.
	11. **TGbc** (slide #19)
		1. The work this session is to complete comments from the D3.0 re-circulation letter ballot.
		2. No questions
	12. **TGbd** (slide #21)
		1. The group will work on comments from the recent SA re-circulation ballot on 11bd D5.0.
		2. No questions
	13. **TGbe** (slide #24)
		1. The D2.0 initial letter ballot completed, with over 4000 comments received. The ballot did not achieve the 75% pass rate. The work this week will be to start working on these comments.
		2. No questions
	14. **TGbf** (slide #26)
		1. The group will be working on comments received from the comment collection that completed at the end of May 2022.
		2. No questions
	15. **TGbh** (slide #29)
		1. The group will address comments received from the D0.2 comment collection.
		2. No questions
	16. **TGbi** (slide #30)
		1. There are 3 meetings during this session. The group will address requirements definitions.
		2. No questions.
	17. **AIML TIG** (slide #31)
		1. This will be the first session of this new TIG with 2 meetings during the week.
		2. No questions.
	18. **AMP TIG** (slide #32)
		1. This will be the first session of this new TIG with 2 meetings during the week.
		2. No questions.
	19. **ITU ad-hoc** (slide #34)
		1. There will be one meeting this week.
		2. No questions.
12. **Wi-Fi Alliance Liaison** (11-22-0958r0)
	1. This is an update from the Wi-Fi Alliance.
	2. There was a face to face meeting in June 2022 and the next one is planned for October 2022.
	3. Q: Is WFA thinking of providing any requirements for the next 802.11 PHY project following 11be?
	4. A: Not at the moment, as it is a little too early.
13. **P802.11 Corrigendum** (11-22-1034r1)
	1. There were 5 comments received on the P802.11-2020 Cor 1 D2.1 initial SA ballot, which passed with 100% approval. All of these comments will be rejected, as they can be passed to the editorial staff when the corrigendum is published.
	2. Chair: Following the relevant motions passing in 802.11, the plan is that the draft will be taken to the EC for unconditional approval to be forwarded to RevCom.
	3. No questions.
14. **TIG chair confirmation motions** (11-22-0872r6)
	1. **Motion 1: AIML TIG chair**
		1. **Confirm Xiaofei Wang as the IEEE 802.11 Artificial Intelligence/Machine Learning (AIML) TIG chair.**
		2. Moved: Mark Hamilton, Seconded: Lei Wang
		3. No objection to approving by unanimous consent (Motion passes)
	2. **Motion 2: AMP TIG Chair**
		1. **Confirm Bo Sun as the IEEE 802.11 Ambient Power IoT (AMP) TIG chair.**
		2. Moved: Amelia Andersdotter, Seconded: Sai Nandagopalan
		3. No objection to approving by unanimous consent (Motion passes)
15. **AoB**
	1. Q: I believe that there’s a tutorial this evening? What is the topic please?
	2. A: Yes, it’s a 802 technical plenary. Here is a link for more information: <https://mentor.ieee.org/802-ec/dcn/22/ec-22-0146-00-00EC-802-technical-plenary-intro.pdf>
16. **Recess**
	1. Meeting recessed at 12:23 ET.

**Wednesday, July 13th 2022**

**IEEE 802.11 Mid-week Plenary**

Call to order at 13:34 Eastern Time (ET) by Dorothy Stanley (HPE).

There were 143 people in the meeting (Webex), with 90 attending in person (in the room) and 302 on the IMAT attendance server.

1. **Approve/modify working group agenda** (11-22-0833r3)
	1. Chair: There have been some minor changes to the agenda since the opening plenary.
	2. There is an additional Thursday AM2 TGbb slot that has been added. Several other slots have been released.
	3. **Approve the agenda for the today’s meeting as shown in 11-22-0833r3**
		1. Moved: Ian Sherlock, 2nd: Jim Lansford
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-22-0835r1)
	1. **Participation** (slides #4 - #6)
		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 #7)
		1. This is the Call for Essential Patents
		2. No statements
		3. No questions.
	3. **Meeting decorum** (slide #8)
		1. No questions.
	4. **Session specific individual experts** (slide #9, also copied below)
		1. There is a policy whereby the WG chair can designate individual experts for each meeting. The individuals shown on the slide are regarded as such experts.
		2. Q: Jeff Bailey is attending as a student (for the whole week) and is not on a waiver
		3. A: Ok, thank you.
		4. List of 2022 July Designated experts:
			1. Individual experts who attend electronically for a specific purpose/presentation can be designated as such by the WG Chair, and receive a registration fee waiver and limited attendance rights.
			2. See section 5 in [https://mentor.ieee.org/802-ec/dcn/17/ec-17-0090-25-0PNP-ieee-802-lmsc-operations-manual.pdf](https://urldefense.com/v3/__https%3A/mentor.ieee.org/802-ec/dcn/17/ec-17-0090-25-0PNP-ieee-802-lmsc-operations-manual.pdf__;!!NpxR!n0IGKRUN00vFNl02PJWK62HdgD_XUQZHUTqBfw27hr5Rw78Hrl8c65AAlPvylOdM0S0R8JiBtrILm_keyfUCCT-u$) ,
				1. *The Working Group Chair may designate specific individual experts who are allowed to participate in Working Group discussions via electronic means during an in-person meeting for the benefit of the group. These individuals are not considered to be attending the meeting and so they are not required to pay meeting fees and they do not get participation credit. The participation of these individuals should be limited to specific technical topics. Such participation shall be documented in the minutes of the Working Group meeting.*
			3. The individuals listed below are hereby designated as specific individual experts on their respective topics and subject to the restrictions and benefits described in the 802 OM.
				1. Dorin Viorel – Cablelabs (COEX)
				2. Tong Li - Renmin University (WNG)
				3. Sumit Roy - University of Washington (WNG)
				4. Stefano Avallone - University of Napoli (WNG)
				5. Ioannis Lambadaris - Carleton University (WNG)
			4. For WNG, attendance for each is limited to the WNG timeslot in which the respective presentation is scheduled.
	5. **IEEE 802 Chair – Paul Nikolich**
		1. Please note the information about the IEEE 802 chair’s position.
		2. Election for a new 802 Chair and officers will be March 2024, Paul will be stepping down and not standing for reelection.
	6. **IEEE 802 milestone award**
		1. This is about an IEEE award for IEEE 802. Please contact Geoff Thompson if you are able to assist this effort.
3. **IETF Liaison** (11-22-1094r0)
	1. The slides contain information about various IETF projects that may be of interest to IEEE 802.11.
	2. No questions
4. **IEEE 1609 Liaison** (11-22-1121r0)
	1. IEEE 1609 is a mid layer and security protocol with an interface to/from 802.11bd.
	2. IEEE 1609 appreciate the ongoing relationship with 802.11.
	3. The scope has been recently expanded to operate over LTE-V2X as well as DSRC.
	4. No questions
5. **IEEE 802.18 Liaison** (11-22-0840r1)
	1. This document summarizes the discussions within the IEEE 802.18 meetings this session.
	2. Joint calls with IEEE 802.19 regarding the “Table of Frequency Ranges” are continuing.
	3. No questions.
6. **IEEE 802.19 Liaison** (11-22-1039r0)
	1. This document summarizes the discussions within the IEEE 802.19 meetings this session.
	2. No questions.
7. **IEEE 802 Nendica - Technical Plenary and PAR SC**
	1. These reports are deferred until Friday
8. **802.11 Operations Manual** (11-14-0629r23)
	1. Chair: The idea is to consider approval of these document changes in September 2022.
	2. There have been several changes to the operations manual, especially based on some of the procedures that have been adopted through the Covid-19 pandemic regarding teleconference.
	3. Q: Regarding the changes about allowing motions in teleconferences, is this correct?
	4. Chair: Yes, as the updated changes are based on emails that I sent out in 2020.
	5. C: Ok, so perhaps I can make some further changes offline.
	6. Q: From now on, will we continue to be able to have motions in teleconferences.
	7. Chair: Yes, now that the pandemic is subsiding, I would like to still have motions in teleconferences. This change codifies that change. However, I wouldn’t expect motions to be scheduled in teleconferences at inconvenient times for the majority of members.
	8. Q: The suggestion of the times in section 8.2 seems difficult for Pacific time.
	9. Chair: OK, this will be reconsidered by the IEEE 802.11 officers.
	10. Q: I think we may need some extra procedures for mixed-mode meetings, such as queuing to make comments and other such items.
	11. Chair: Yes, I agree.
	12. Q: There are many straw polls in certain groups and these have become quite important. In mixed mode, it is difficult to determine which people are unhappy with the technical direction of the group.
	13. Chair: It is possible to have a recorded vote for straw polls. It is also possible for sub-groups to determine their own thresholds and criteria for straw polls. In addition, they can be recorded.
	14. C: But some of the straw polls are now quite meaningful.
	15. Chair: Yes, I agree. However, that is how the sub-groups have evolved to use them.
	16. Q: Is there such a thing as a recorded straw poll? Can this be inserted into clause 8.2?
	17. A: Yes, it can be considered.
	18. Q: I also think that information is being lost in straw polls. During this week, we are missing the show of hands that we used to have. It is very difficult to determine who is not content with a technical position. Perhaps recorded straw polls should be considered.
	19. C: Perhaps another section can be added to the operations manual about how to use electronic tools and voting systems.
	20. Chair: Ok, I understand. This information can be extracted from Webex.
	21. C: Recording straw poll participation in Webex is perhaps not so effective, as the subsequent minutes do not provide quick feedback.
	22. C: From a secretary’s point of view, this would be quite onerous. This is a lot of information to add to a document.
	23. C: Once we return to full face to face operation, will these teleconference changes still be in place?
	24. Chair: Yes, that is the effect of the proposal being codified in the draft rule changes
	25. C: Perhaps these changes can be revisited at some later point.
	26. C: I hope that we always maintain mixed-mode meetings and do not return to face-to-face only meetings.
	27. C: I expect recording straw polls would only be an occasional event and not for every straw poll.
	28. C: I think the concern is about knowing who has chosen various straw poll options. Can this just be shared locally by the chair of the meeting?
	29. Chair: Yes, his information must also be put into the minutes.
	30. C: Could names from Straw Polls be placed into the Webex chat window?
	31. Chair: That is a possibility. Even so, the information must be in the minutes.
	32. C: I disagree with that position. In a face to face meeting, it’s just the count of hands that is recorded in the minutes, not the names. I think there are mechanisms in Webex that will allow the results and names to be shown.
	33. Chair: Ok, that’s fair enough.
	34. C: I agree that straw polls are now used in a different way and I wonder if Webex can be used in a more efficient way.
	35. Q: Perhaps some trials can be performed?
	36. Chair: Yes, I think so. I’d like to take this discussion to the CAC.
	37. Chair: It would be useful to add a new section about mixed-mode meetings.
9. **Any other Business (AoB)**
	1. IEEE 802 Chair: I am now serving my last term that will finish in March 2024. The IEEE 802 chair also appoints several positions, such as secretary and treasurer. I think that having some new people on the executive committee would be useful. If you are interested in any of these positions, please let me know.
	2. C: Age is just a number, so I wouldn’t want anyone in this meeting to feel that this is a criterion. So, if you are interested in any position, please put your name forward.
10. **Recess**
	1. Meeting recessed at 15:00 ET.

**Friday, July 15th 2022**

**IEEE 802.11 Closing Plenary**

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

There were 233 people in the meeting (Webex), with 68 attending in person (in the room) and 274 on the IMAT attendance server.

1. **Approve/modify working group agenda** (11-22-0833r4)
	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 11-22-0833r4**
		1. Moved: Stuart Kerry, 2nd: Assaf Kasher
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-22-0835r2)
	1. **Participation** (slides #13 - #15)
		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 #16)
		1. This is the Call for Essential Patents
		2. No statements
		3. No questions.
	3. **Meeting Decorum** (slide #17)
		1. No questions.
	4. **Next session and CAC meetings** (slide #18)
		1. The next session of the IEEE 802.11 working group is from September 11-16th 2022. It will be a mixed mode meeting in Waikoloa, Hawaii, USA.
		2. Please be aware of future chair’s committee meetings (CAC), the first one of which will be on August 8th at 09:00 ET. Please note the deadline for the sub-group agendas.
	5. **Sub-group minutes**
		1. Please note that sub-group minutes should be completed within 30 days from the close of this plenary.
	6. **Letters of Assurance (LoA)** (slide #18)
		1. Chair: please remember about the LoA requirements.
		2. There is one LoA request open at the moment.
	7. **IEEE Store and ISO SC6** (slides #20 - #21)
		1. The IEEE 802.11bc draft D3.0 is now available.
		2. No questions
		3. The 802.11ax and 802.11ay LoA issues within ISO, are still ongoing.
	8. **Press Releases** (slide #22)
		1. There have been no recent press releases or blog statements since the May 2022 meeting. I will request IEEE staff to develop blogs/press releases for the new AIML and AMP TIGs and UHR SG if formed.
	9. **IEEE 802 Public Visibility Standing Committee** (slides #23 - #24)
		1. This IEEE 802 group is designed to increase the external visibility of IEEE 802.
		2. There was a Tech Talk about IEEE 802 coexistence in June 2022 and a link is shown in the slide.
		3. No questions
3. **Treasury Report** (ec-22-0111r0)
	1. VC1: This shows the treasurers’ report and is correct as of July 10th 2022.
	2. The session fees have been increased to cover the additional expense of the mixed-mode tools. The treasury is looking healthier now than earlier in the year.
	3. Monies from the January 2022 meeting has now been finalized.
	4. There are now 9 outstanding deadbeats at the moment.
	5. No questions
4. **Future 2022 Venues Straw Polls** (11-22-0872r6 and also 11-22-0859r1)
	1. **1. If the 2022 November Plenary Session is held in Bangkok, Thailand as an in-person only session, will you attend?**
		1. Yes: 83
		2. No: 58
		3. No answer: 32
	2. **2. If the 2022 November Plenary Session is held in Bangkok, Thailand as a mixed-mode session, will you attend:**
		1. Attend In-person: 76
		2. Attend Virtually (remotely): 72
		3. Will not attend plenary : 4
		4. No answer: 25
	3. **3. The 2022 September Interim Session will be held in Waikoloa, Hawaii as a mixed-mode session, will you attend:**
		1. Attend In-person: 80
		2. Attend Virtually (remotely): 54
		3. Will not attend interim: 21
		4. No answer: 27
	4. Only people present in the room were asked to participate in the following straw polls:
	5. **4. How many people would like to come back to this venue?**
		1. Yes: 82
		2. No: 13
		3. Abstain: 92
	6. **5. Did you go to the social?**
		1. Yes: 52
		2. No: 7
	7. **6. If you attended the social, did you like it?**
		1. Yes: 43
		2. No: 2
5. **Future Venues Manager Report** (11-22-0859r1)
	1. VC1: These slides shows the current status of future venues.
	2. Please note the items to consider for future sessions on slide #28.
	3. The March 2023 meeting in Atlanta will also have a delayed 40th anniversary celebration of IEEE 802.
	4. The registration page for the September 2022 meeting is open.
	5. No questions
6. **Timelines**
	1. There are changes to the TGbc, TGme, TGbh and TGbi timelines. Changes will be made to the timeline shortly.
	2. No questions.
7. **Attendance statistics** (11-22-0858r1 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 year or so.
8. **WG Committee Reports** (11-22-0858r1)
	1. **Editors** (slide #10)
		1. There will be a revision of the amendment ordering in September 2022.
		2. Chair: I would to have a round of applause for all our editors and MDR reviewers.
		3. No questions.
	2. **ARC SC** (slide #20)
		1. The group continued with the re-structuring of clause 6 discussion.
		2. There are some other future items regarding the IEEE Std 802 revision that will be discussed in more detail in September 2022.
		3. No questions.
	3. **Coex SC** (slide #25)
		1. There were several discussions during the meeting and there is still work to be done going forward regarding Wi-Fi/LAA/NR-U.
		2. They were some additional items about 5 GHz and 6 GHz bands in Europe. There may be some 802.11be coexistence issues with 802.11ax which needs to be studied in more detail within the 5 and 6 GHz bands.
		3. IEEE 802.15.4ab was discussed in the WNG SC this week and co-existence discussions may be considered in the future.
		4. No questions.
	4. **PAR SC** (slide #28)
		1. There were 9 PARs that were considered this week.
		2. No questions.
	5. **WNG** **SC** (slide #31)
		1. There were 11 presentations this session:
			1. “Next Generation SG formation” Ming Gan (Huawei) 1083r1
			2. “View on Beyond BE” Yusuke Tanaka (Sony) 965r1
			3. “Network Operator's Perspective on Next Generation WLAN” Akira Kishida (NTT) 961r0
			4. “Plans for Study Group formation” Rolf de Vegt (Qualcomm) 708r3
			5. “Priority Access- FCC R&O and Additional Use Cases” Subir Das (Peraton Labs) 1074r1
			6. “Tame ACK (TACK) in QUIC” Tong Li (Renmin University) 1061r0
			7. “Thoughts on Beyond 802.11be” Wook Bong Lee (Samsung) 932r0
			8. “Introduction to 802.15.4ab UWB and coexistence issues” Ben Rolfe (Blind Creek Associates) 1081r1
			9. “Cloud VR use case and requirements for beyond be” Ross Jian Yu (Huawei) 952r0
			10. “NS-3 Working Group on WiFi: An Update on 802.11ax and .11be Models” Sumit Roy (University of Washington) and Stefano Avallone (University of Napoli) 1072r2 & 1068r0
			11. “Clear Channel Assessment (CCA) behavior of commercial Wi-Fi equipment” Jeff Bailey (Carleton University) 998r0
			12. 4 of these presentations were from academia which was a good achievement.
			13. No questions.
		2. **Motion 3: UHR SG formation**
			1. **Request approval by the IEEE 802 LMSC to form an 802.11 Ultra High Reliability Study Group (UHR SG) with the intent of creating a PAR and CSD.**
			2. **The Study Group will investigate technology which may improve reliability of WLAN connectivity, reduce latencies, increase manageability, increase throughput including at different SNR levels, and reduce device level power consumption, with a target start of the task group in May 2023.**
			3. **Note: Reference documents: 11-22-0708r3 and numerous additional WNG contributions on this topic.**
			4. Moved: Rolf de Vegt, Seconded: Mike Montemurro
			5. Result: Yes: 134, No: 8, Abstain: 8 (Motion passes)
			6. [WNG SC Straw Poll Result: Y 216 / N 16 / A 30]
	6. **JTC1 SC** (slide #34)
		1. Some time was spent discussing the PSDO process and also the IPR issues regarding the IEEE 802.11ax ISO ballot. Until these are resolved, other IEEE 802.11 amendments will not be sent to ISO for adoption under the PSDO agreement. Progress is still rather slow.
		2. No questions.
	7. **TGme** (slide #41)
		1. This session continued to resolve comments from LB 258.
		2. There is an ad-hoc planned for August 23-25th in San Diego, CA, USA.
	8. **TGaz** (slide #45)
		1. The group has been working on comments from the SA re-circulation ballot. They expect to finish the remaining 10 comments shortly and then recirculate D6.0 before September 2022.
		2. No questions.
	9. **TGbb** (slide #50)
		1. The session has finished resolving comments from comment collection 42. The group is bringing a motion to the WG to approve a re-circulation ballot on D3.0 later in this meeting.
		2. No questions.
	10. **TGbc** (slide #54)
		1. The comment resolutions to comments from the D3.0 re-circulation ballot were completed this week.
		2. No questions.
	11. **TGbd** (slide #61)
		1. Comments from the SA re-circulation ballot were discussed during the session.
		2. No questions.
	12. **TGbe** (slide #65)
		1. Good progress was made this week and about 500 comments were resolved this week.
		2. The editor will create D2.1, incorporating these resolutions by the end of July.
		3. There will be an MAC ad-hoc meeting in San Diego, CA, USA from September 7-9th 2022.
		4. No questions.
	13. **TGbf** (slide #69)
		1. There were 4 meetings during this session.
		2. 25% of the comments from comment collection 40 have been resolved. We expect that P802.11bf D1.0 will be available by September 2022.
		3. No questions.
	14. **TGbh** (slide #74)
		1. Comments from the recent comment collection were worked on during the session.
		2. No questions.
	15. **TGbi** (slide #79)
		1. There were discussion about the use cases and issues documents.
		2. The group requires some more submission documents to move forward.
		3. No questions.
	16. **AIML TIG** (slide #83)
		1. This was the first meeting of this TIG.
		2. There were initial discussions this session and work was started on a TIG report that will be continued on teleconferences.
		3. No questions.
	17. **AMP TIG** (slide #86)
		1. This was the first meeting of this TIG.
		2. 4 submissions were discussed during this session outlining some use cases and potential technologies.
		3. No questions.
	18. **ITU ad-hoc** (slide #88)
		1. One meeting was held this week to review the status of M.1450 and M.1801 contributions in ITU-R. Additional WG11/802 contributions are planned for the November ITU-R meeting.
		2. No questions.
9. **Liaison Reports** (11-22-0858r1)
	1. **IEEE 802 Nendica - Technical Plenary** (slide #108)
		1. This is report about the ongoing P802-REV and P802-REVc projects.
		2. In addition, there is an IEEE 802 architecture revision activity, although it is currently going slowly.
		3. Chair: There are several actions on slide #112 and I would like an IEEE 802.11 designee to attend this IEEE 802 group. Please send me an email if you interested in this activity.
		4. Chair: Regarding the IEEE 802 revision project, I would also like an IEEE 802.11 designee to track this, who can then report back to IEEE 802.11 and ARC.
	2. No questions
10. **Working Group Motions (Old Business)** (11-22-0872r6)
	1. **Motion 4: WG Liaison Officers**
		1. **Move to confirm the following liaison officers:**
		2. **Carlos Cordeiro (Wi-Fi Alliance)**
		3. **Peter Yee (IETF)**
		4. **John Kenney (IEEE 1609)**
		5. **Edward Au (802.18)**
		6. **Tuncer Baykas (802.19)**
		7. Moved: Joseph Levy, Seconded: Marc Emmelmann
		8. No objection to approving by unanimous consent (Motion passes)
	2. **Motion 5: Cor-1 comment approval**
		1. **Approve resolutions to the comments from the initial SA ballot on P802.11-2020/Cor1/D2.1 in 11-22/1034r1.**
		2. Moved: Robert Stacey, Second: Stephen Palm
		3. Result: Yes: 88, No: 0, Abstain: 15 (Motion passes)
	3. **Motion 6: Cor-1 Report to EC**
		1. **Approve document 11-22/1150r1 as the report to the IEEE 802 Executive Committee on the requirements for approval to forward P802.11-2020/Cor1 D2.1 to RevCom, and request the IEEE 802 Executive Committee to forward P802.11-2020/Cor1 D2.1 to RevCom.**
		2. Moved: Robert Stacey, Second: Xiaofei Wang
		3. Result: Yes: 103, No: 0, Abstain: 11 (Motion passes)
	4. **Motion 7: JTC1 Liaison Response to ISO/IEC**
		1. **The IEEE 802.11 WG recommends to the IEEE 802 EC that the material in 11-22-0956-02 be used as the basis of a response to ISO/IEC JTC1/SC6, regarding the China NB’s technical comments on IEEE Std 802.11-2020 during FDIS ballot.**
		2. **Notes**
		3. **A similar motion passed with unanimous consent in the JTC1 SC**
		4. **The response does not address the IPR related comment from Japan NB**
		5. **It is assumed the IEEE 802.11 WG Chair will have editorial license**
		6. Moved: Andrew Myles on behalf of the JTC1 SC, Second: Rich Kennedy
		7. Result: Yes: 85, No: 0, Abstain: 16 (Motion passes)
	5. **Motion 8: TGbb re-circulation letter ballot**
		1. **Having approved resolutions to comments from LB 263 in doc. 11-22-0678r7 and resolutions to comments from CC 42 in doc. 11-22-0949r5 as well as resolutions to the findings in the MDR report in doc. 11-22-0975r1,**
		2. **Ask the WG to start a 30-day WG re-circulation LB for Draft 3.0.**
		3. Moved: Nikola Serafimovski on behalf of TGbb
		4. No objection to approving by unanimous consent (Motion passes)
		5. [TGbb: Move: Volker Jungnickel, 2nd: Tuncer Baykas, Result: 8/0/0]
	6. **Motion 9: TGbb Approve D3.0 purchase release**
		1. **Ask the WG to make P802.11bb D3.0 available for purchase, conditional upon D3.0 passing WG re-circulation ballot.**
		2. Moved: Nikola Serafimovski on behalf of TGbb, Second: Marc Emmelmann
		3. Result: Yes: 88, No: 2, Abstain: 16 (Motion passes)
		4. [TGbb: Move: Tuncer Baykas, 2nd: Volker Jungnickel, Result: Unanimous consent]
	7. **Motion 10: TGbc re-circulation letter ballot**
		1. **Having approved comment resolutions for all of the comments received from LB 264 on TGbc D3.0 as contained in document 11-22/0686r16,**
		2. **Instruct the editor to prepare Draft D4.0 incorporating these resolutions and additional changes to the draft as motioned per 11-18/2123r60,**
		3. **Approve a 15 day Working Group Recirculation Ballot asking the question “Should TGbc D4.0 be forwarded to SA Ballot?”**
		4. Chair: Please can we change the duration from 10 to 15 days please.
		5. A: Yes, that’s fine.
		6. Moved: Marc Emmelmann on behalf of TGbc, Second: Dave Halasz
		7. No objection to approving by unanimous consent (Motion passes)
		8. [TGbc: Moved: Stephen McCann, 2nd: Abhishek Patil, Result: 9/0/0]
11. **IEEE 802.18 Liaison update** (11-22-1157r0)
	1. There was a discussion towards the end of this session regarding some new language terms from IEEE-SA P3400.
	2. The Bluetooth SIG potentially has some alternatives terms which will be investigated.
	3. C: I note that this group (P3400) is creating a list of inappropriate words that may then require changes to the IEEE 802.11 specification, so it needs to be monitored.
12. **Wireless Chairs Meeting** (11-22-0835r2 slide #25)
	1. The next meeting is on August 3rd 2022 at 15:00 ET. Please contact the IEEE 802.11 chair or vice-chairs with a request for more information.
13. **Next Meeting** (11-22-0835r2 slide #26)
	1. The proposed date of the next IEEE 802.11 meeting is September 11-16th 2022 in Waikoloa, Hawaii, USA as a mixed mode meeting.
14. **Any other Business (AoB)**
	1. None
15. **Adjournment**
	1. Having completed the agenda, the chair announced that the meeting was adjourned at 09:53 ET.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 75%?** | **Status** |
| --- | --- | --- | --- |
| Abdelaal, Rana  | Broadcom Corporation  | TRUE  | Voter |
| Abouelseoud, Mohamed  | Apple Inc.  | TRUE  | Voter |
| Aboulmagd, Osama  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Adachi, Tomoko  | TOSHIBA Corporation  | TRUE  | Voter |
| Adakeja, olubukola  | Teradyne, Inc.  | TRUE  | Potential Voter |
| Adhikari, Shubhodeep  | Broadcom Corporation  | TRUE  | Voter |
| Agarwal, Peyush  | Broadcom Corporation  | TRUE  | Voter |
| Ahn, Woojin  | Korea Railroad Research Institute (KRRI)  | FALSE  | Non-Voter |
| Aio, Kosuke  | Sony Corporation  | TRUE  | Voter |
| Ajami, Abdel Karim  | Qualcomm Incorporated  | TRUE  | Voter |
| Akhmetov, Dmitry  | Intel Corporation  | TRUE  | Voter |
| Amalladinne, Vamsi  | Qualcomm Incorporated  | FALSE  | Voter |
| An, Song-Haur  | INDEPENDENT  | TRUE  | Voter |
| Andersdotter, Amelia  | Sky UK Group  | TRUE  | Voter |
| Ansley, Carol  | Cox Communications Inc.  | TRUE  | Voter |
| Arlandis, Diego  | Maxlinear Corp  | TRUE  | Voter |
| Arregui, Antonio  | Maxlinear  | TRUE  | Voter |
| Arrington, Arthur  | Air Network Solutions  | TRUE  | Voter |
| Asai, Yusuke  | NTT  | TRUE  | Voter |
| Asterjadhi, Alfred  | Qualcomm Incorporated  | TRUE  | Voter |
| Au, Kwok Shum  | Huawei Technologies Co., Ltd  | TRUE  | ExOfficio |
| Au, Oscar  | Origin Wireless  | TRUE  | Voter |
| Avital, Ziv  | MaxLinear  | FALSE  | Voter |
| Awater, Geert  | Qualcomm Incorporated  | TRUE  | Voter |
| Aygul, Mehmet  | Vestel  | TRUE  | Voter |
| Badenes, Agustin  | Maxlinear Corp  | TRUE  | Voter |
| Baek, SunHee  | LG ELECTRONICS  | TRUE  | Voter |
| Bahn, Christy  | IEEE STAFF  | TRUE  | Voter |
| Baik, Eugene  | Qualcomm Incorporated  | TRUE  | Voter |
| Bailey, Jeffrey  | Carleton University  | FALSE  | Non-Voter |
| Bajko, Gabor  | MediaTek Inc.  | TRUE  | Voter |
| Balakrishnan, Hari Ram  | NXP Semiconductors  | TRUE  | Voter |
| Bankov, Dmitry  | IITP RAS  | TRUE  | 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 |
| Behnamfar, Firouz  | Apple Inc.  | TRUE  | Aspirant |
| Bei, Jianwei  | NXP Semiconductors  | TRUE  | Voter |
| Ben Arie, Yaron  | Toga networks (a huawei company)  | TRUE  | Voter |
| Berens, Friedbert  | FBConsulting Sarl  | FALSE  | Voter |
| Berger, Christian  | NXP Semiconductors  | TRUE  | Voter |
| Berkema, Alan  | HP Inc.  | TRUE  | Voter |
| Bluschke, Andreas  | Signify  | TRUE  | Voter |
| Bober, Lennert  | Fraunhofer Heinrich Hertz Institute  | FALSE  | Voter |
| Boldy, David  | Broadcom Corporation  | TRUE  | Voter |
| Borges, Daniel  | Apple, Inc.  | TRUE  | Voter |
| Boyle, Vincent  | NSA  | FALSE  | Non-Voter |
| Bravo, Daniel  | Intel Corporation  | TRUE  | Voter |
| Burkhardt, Frank  | Fraunhofer IIS  | TRUE  | Potential Voter |
| Canchi, Radhakrishna  | Kyocera International Inc  | TRUE  | Voter |
| Cao, Rui  | NXP Semiconductors  | TRUE  | Voter |
| Cariou, Laurent  | Intel Corporation  | TRUE  | Voter |
| Carney, William  | Sony Group Corporation  | TRUE  | Voter |
| Cavalcanti, Dave  | Intel Corporation  | TRUE  | Voter |
| Cepni, Gurkan  | Apple, Inc.  | TRUE  | Voter |
| Chakrabarti, Samita  | Verizon  | TRUE  | Aspirant |
| Chang, Chen-Yi  | Mediatek  | TRUE  | Voter |
| Chaplin, Clint  | Self  | FALSE  | ExOfficio |
| Chappell, Matthew  | Cox Communications Inc.  | TRUE  | Voter |
| Chemrov, Kirill  | IITP RAS  | TRUE  | Voter |
| Chen, Cheng  | Intel Corporation  | TRUE  | Voter |
| Chen, Evelyn  | Ericsson AB  | TRUE  | Voter |
| Chen, Xiaogang  | ZEKU Technologies  | TRUE  | Voter |
| Chen, You-Wei  | MediaTek Inc.  | TRUE  | Aspirant |
| Cheng, Paul  | MediaTek Inc.  | TRUE  | Voter |
| cheng, phoebe  | MediaTek Inc.  | TRUE  | Voter |
| Cheng, Xilin  | NXP Semiconductors  | TRUE  | Voter |
| CHERIAN, GEORGE  | Qualcomm Incorporated  | TRUE  | Voter |
| Chiang, James  | MediaTek Inc.  | TRUE  | Voter |
| Chitrakar, Rojan  | Panasonic Asia Pacific Pte Ltd.  | TRUE  | Voter |
| Chiu, Lin-Kai  | MediaTek Inc.  | TRUE  | Voter |
| Chiu, WenHsien  | MediaTek Inc.  | FALSE  | Aspirant |
| Chng, Shi Baw  | BAWMAN LLC  | TRUE  | Potential Voter |
| Cho, Hangyu  | LG ELECTRONICS  | TRUE  | Voter |
| Choi, Jinsoo  | LG ELECTRONICS  | TRUE  | Voter |
| Choo, Seungho  | Senscomm Semiconductor Co., Ltd.  | TRUE  | 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 |
| Coffey, John  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Cordeiro, Carlos  | Intel Corporation  | TRUE  | Voter |
| da Silva, Claudio  | Meta Platforms, Inc.  | TRUE  | Voter |
| Das, Dibakar  | Intel Corporation  | TRUE  | Voter |
| Das, Subir  | Peraton Labs  | TRUE  | ExOfficio |
| Dash, Debashis  | Apple, Inc.  | TRUE  | Voter |
| Dauphinee, Leonard  | MAXLINEAR INC  | TRUE  | Voter |
| de Vegt, Rolf  | Qualcomm Incorporated  | TRUE  | Voter |
| DeLaOlivaDelgado, Antonio  | InterDigital, Inc.  | TRUE  | Voter |
| Derham, Thomas  | Broadcom Corporation  | TRUE  | Voter |
| Deshmukh, Mrugen  | InterDigital, Inc.  | TRUE  | Aspirant |
| DESMOULIN, Patrice  | Orange  | TRUE  | Voter |
| Ding, Yanyi  | Panasonic corporation  | TRUE  | Voter |
| Dogukan, Ali  | Vestel  | TRUE  | Voter |
| Dong, mingjie  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Dong, Xiandong  | Xiaomi Inc.  | TRUE  | Voter |
| Du, Rui  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Du, Zhenguo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Duan, Ruchen  | SAMSUNG  | TRUE  | Voter |
| Ecclesine, Peter  | Cisco Systems, Inc.  | TRUE  | Voter |
| Eitan, Alecsander  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| ElSherif, Ahmed  | Qualcomm Incorporated  | TRUE  | Voter |
| Emmelmann, Marc  | SELF / Koden-TI / Fraunhofer FOKUS  | TRUE  | Voter |
| Erceg, Vinko  | Broadcom Corporation  | FALSE  | Voter |
| Erkucuk, Serhat  | Ofinno  | TRUE  | Voter |
| Fan, Shuang  | ZTE Corporation  | TRUE  | Potential Voter |
| Fang, Juan  | Intel Corporation  | TRUE  | Voter |
| Fang, Yonggang  | MediaTek Inc.  | TRUE  | Voter |
| Fellhauer, Felix  | University of Stuttgart  | FALSE  | Non-Voter |
| feng, Shuling  | MediaTek Inc.  | TRUE  | Voter |
| Ferruz, David  | Maxlinear Corp  | TRUE  | Voter |
| Fischer, Matthew  | Broadcom Corporation  | 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  | Potential Voter |
| Ghaderipoor, Alireza  | MediaTek Inc.  | TRUE  | Voter |
| Ghosh, Chittabrata  | Meta  | TRUE  | Voter |
| Gilb, James  | General Atomics Aeronautical Systems, Inc.  | FALSE  | ExOfficio |
| Godbole, sachin  | Broadcom Corporation  | TRUE  | Voter |
| Godfrey, Tim  | Electric Power Research Institute, Inc. (EPRI)  | FALSE  | ExOfficio |
| Gong, Bo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gorthi, Hemamali  | Infineon Technologies  | TRUE  | Potential Voter |
| GOTO, Fumihide  | DENSO  | TRUE  | Voter |
| Grandhe, Niranjan  | NXP Semiconductors  | TRUE  | Voter |
| Grigat, Michael  | Deutsche Telekom AG  | TRUE  | Voter |
| Gu, Xiangxin  | UNISOC  | TRUE  | Voter |
| GUIGNARD, Romain  | Canon Research Centre France  | TRUE  | Voter |
| Guo, Jing  | NXP Semiconductors  | TRUE  | Voter |
| Guo, Yuchen  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gupta, Binita  | Meta Platforms, Inc.  | TRUE  | Voter |
| Gupta, Raghvendra  | Broadcom Corporation  | TRUE  | Potential Voter |
| Guthrie, Rebecca  | NSA - CCSS  | FALSE  | Non-Voter |
| gutierrez, luis  | Broadcom Corporation  | TRUE  | Potential Voter |
| Haasz, Jodi  | IEEE SA  | FALSE  | Non-Voter |
| Haider, Muhammad Kumail  | Facebook  | TRUE  | Voter |
| Halasz, David  | Morse Micro  | TRUE  | Voter |
| hamidouche, kenza  | Apple Inc.  | TRUE  | Aspirant |
| Hamilton, Mark  | Ruckus/CommScope  | TRUE  | Voter |
| HAN, CHONG  | pureLiFi  | TRUE  | Voter |
| Han, Jonghun  | SAMSUNG  | TRUE  | Voter |
| HAN, Xiao  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Handte, Thomas  | Sony Group Corporation  | TRUE  | Voter |
| Handziski, Vlado  | R3 Solutions GmbH  | TRUE  | Voter |
| Hansen, Christopher  | Covariant Corporation  | TRUE  | Voter |
| Harkins, Daniel  | Aruba Networks, Inc.  | TRUE  | Voter |
| Harrison, Edward  | Anritsu Company  | TRUE  | Voter |
| Hart, Brian  | Cisco Systems, Inc.  | TRUE  | Voter |
| He, Chuanfeng  | Beijing OPPO telecommunications corp., ltd  | TRUE  | Aspirant |
| Henry, Jerome  | Cisco Systems, Inc.  | TRUE  | Voter |
| Hernandez, Marco  | National Institute of Information and Communications Technology (NICT)  | FALSE  | 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  | Aspirant |
| Hsieh, Hung-Tao  | MediaTek Inc.  | TRUE  | Voter |
| Hsu, Chien-Fang  | MediaTek Inc.  | TRUE  | Voter |
| Hsu, Ostrovsky  | Xiaomi Inc.  | 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, Lei  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Huang, Po-Kai  | Intel Corporation  | TRUE  | Voter |
| Huang, Qisheng  | ZTE Corporation  | TRUE  | Voter |
| Huq, Kazi Mohammed Saidul  | Ofinno  | TRUE  | Voter |
| Huszak, Gergely  | KONE  | FALSE  | Non-Voter |
| Hwang, Sung Hyun  | Electronics and Telecommunications Research Institute (ETRI)  | TRUE  | Voter |
| Ikegami, Tetsushi  | Meiji University  | FALSE  | Voter |
| Inohiza, Hirohiko  | Canon  | TRUE  | Voter |
| Iranzo, Salvador  | MaxLinear Corp  | TRUE  | Voter |
| Jang, Insun  | LG ELECTRONICS  | TRUE  | Voter |
| Jeffries, Timothy  | Futurewei Technologies  | TRUE  | Voter |
| Jeon, Eunsung  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| Ji, Chenhe  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| jiang, feng  | Apple Inc.  | TRUE  | Voter |
| Jiang, Jinjing  | Apple, Inc.  | FALSE  | Voter |
| Joh, Hanjin  | KT Corp.  | TRUE  | Voter |
| Jones, Allan  | Activision  | TRUE  | Voter |
| JOO, SEONG-SOON  | ETRI  | FALSE  | Non-Voter |
| Jornet, Josep Miquel  | Northeastern University  | FALSE  | Non-Voter |
| Juarez, Jorge  | Fraunhofer IIS  | TRUE  | Potential Voter |
| Jung, Insik  | LG ELECTRONICS  | TRUE  | Voter |
| Jungnickel, Volker  | Fraunhofer Heinrich Hertz Institute  | FALSE  | Voter |
| Kadampot, Ishaque Ashar  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Kain, Carl  | USDOT; Noblis, Inc.  | TRUE  | Voter |
| Kakani, Naveen  | Qualcomm Incorporated  | TRUE  | Voter |
| kamath, Manoj  | Broadcom Corporation  | TRUE  | Aspirant |
| 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 |
| Kasargod, Sudhir  | Infineon Technologies  | TRUE  | Voter |
| Kasher, Assaf  | Qualcomm Incorporated  | TRUE  | Voter |
| Kennedy, Richard  | Huawei Paris  | TRUE  | Voter |
| Kenney, John  | Toyota Motor North America  | TRUE  | Voter |
| Kerry, Stuart  | OK-Brit; Self  | TRUE  | Voter |
| Khan, Naseem  | Leidos Engineering. LLC  | TRUE  | Voter |
| Khorov, EVGENY  | IITP RAS  | TRUE  | 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, Wonjung  | LG Uplus  | FALSE  | Voter |
| Kim, Yongho  | Korea National University of Transportation  | TRUE  | Voter |
| Kim, Youhan  | Qualcomm Incorporated  | TRUE  | Voter |
| 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 |
| Ko, Geonjung  | WILUS Inc.  | TRUE  | Voter |
| Kota, Prashant  | Infineon Technologies  | TRUE  | Voter |
| Koundourakis, Michail  | Samsung Cambridge Solution Centre  | TRUE  | Voter |
| Kozarev, Aleksandra  | MaxLinear Corp  | TRUE  | Voter |
| Krebs, Alexander  | Apple Inc.  | FALSE  | Non-Voter |
| Krieger, Ann  | US Department of Defense  | FALSE  | Non-Voter |
| Ku, Chung-Ta  | MediaTek Inc.  | TRUE  | Aspirant |
| Kumar, Manish  | NXP Semiconductors  | TRUE  | Voter |
| Kumari, Warren  | Google  | FALSE  | Voter |
| Kuo, Chih-Chun  | MediaTek Inc.  | TRUE  | Voter |
| Kureev, Aleksey  | IITP RAS  | TRUE  | Voter |
| Kwak, Jin-Sam  | WILUS Inc.  | TRUE  | Voter |
| Lal, Kunal  | Synaptics Incorporated  | TRUE  | Voter |
| Lalam, Massinissa  | SAGEMCOM SAS  | TRUE  | Voter |
| Lalitte, Vanessa  | IEEE SA  | TRUE  | Aspirant |
| Lan, Zhou  | Apple Inc.  | TRUE  | Voter |
| Lanante, Leonardo  | Ofinno  | TRUE  | Voter |
| Lansford, James  | Qualcomm Incorporated; University of Colorado at Boulder  | TRUE  | Voter |
| Lee, Hyeong Ho  | Netvision Telecom Inc.  | TRUE  | Voter |
| Lee, Nancy  | Signify  | TRUE  | Voter |
| Lee, Wookbong  | SAMSUNG  | TRUE  | Voter |
| Lei, E  | Haier Group Corporation  | FALSE  | Non-Voter |
| Levesque, Chris  | qorvo  | TRUE  | Voter |
| Levitsky, Ilya  | IITP RAS  | TRUE  | Voter |
| Levy, Joseph  | InterDigital, Inc.  | TRUE  | Voter |
| Li, Bo  | Northwestern Polytechnical University  | TRUE  | Voter |
| Li, Jialing  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Li, Qinghua  | Intel Corporation  | TRUE  | Voter |
| Li, Tong  | Renmin University of China  | FALSE  | Non-Voter |
| Li, Yan  | ZTE Corporation  | FALSE  | Voter |
| Li, Yapu  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | 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  | FALSE  | Voter |
| Lin, Yousi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lin, Zinan  | InterDigital, Inc.  | TRUE  | Voter |
| Lindskog, Erik  | SAMSUNG  | TRUE  | Voter |
| LIU, CHENCHEN  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Liu, Der-Zheng  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Liu, Jeff  | Broadcom Corporation  | TRUE  | Aspirant |
| Liu, Jianhan  | MediaTek Inc.  | TRUE  | Voter |
| LIU, XIANG  |   | FALSE  | Non-Voter |
| Liu, Yong  | Apple, Inc.  | TRUE  | Voter |
| Liu, Zhiqun  | Qualcomm Incorporated  | TRUE  | Potential Voter |
| Loginov, Vyacheslav  | IITP RAS  | TRUE  | Voter |
| Lopez, Miguel  | Ericsson AB  | TRUE  | Voter |
| Lorgeoux, Mikael  | Canon Research Centre France  | TRUE  | Voter |
| Lou, Hanqing  | InterDigital, Inc.  | TRUE  | Voter |
| Lou, Hui-Ling  | NXP Semiconductors  | TRUE  | Voter |
| Lu, Kaiying  | MediaTek Inc.  | TRUE  | Voter |
| Lu, Liuming  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Lumbatis, Kurt  | CommScope, Inc.  | TRUE  | Voter |
| Luo, Chaoming  | Beijing OPPO telecommunications corp., ltd.  | TRUE  | Voter |
| Lv, Lily  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lyakh, Mikhail  | ON Semiconductor  | TRUE  | Voter |
| Ma, Li  | MediaTek Inc.  | TRUE  | Voter |
| Madpuwar, Girish  | Broadcom Corporation  | TRUE  | Voter |
| Malichenko, Dmitrii  | onsemi  | TRUE  | Voter |
| Malinen, Jouni  | Qualcomm Incorporated  | TRUE  | Voter |
| Mano, Hiroshi  | Koden Techno Info K.K.  | TRUE  | Voter |
| Marks, Roger  | EthAirNet Associates  | FALSE  | ExOfficio |
| Martinez Vazquez, Marcos  | MaxLinear Corp  | TRUE  | Voter |
| Max, Sebastian  | Ericsson AB  | TRUE  | Voter |
| Mccann, Stephen  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Medda, Daniele  | International Hellenic University  | TRUE  | Voter |
| Mehrnoush, Morteza  | Facebook  | TRUE  | Voter |
| MELZER, Ezer  | Toga Networks, a Huawei company  | TRUE  | Voter |
| Memisoglu, Ebubekir  | Istanbul Medipol University; Vestel  | TRUE  | Voter |
| Minotani, Jun  | Panasonic Corporation  | TRUE  | Voter |
| Mirfakhraei, Khashayar  | Zeku  | TRUE  | Voter |
| Monajemi, Pooya  | Cisco Systems, Inc.  | TRUE  | Voter |
| Montemurro, Michael  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Montreuil, Leo  | Broadcom Corporation  | TRUE  | Voter |
| Morioka, Hitoshi  | SRC Software  | TRUE  | Voter |
| Motozuka, Hiroyuki  | Panasonic Holdings Corporation  | TRUE  | Voter |
| Mukkapati, Lakshmi Narayana  | Wi-Fi Alliance  | TRUE  | Potential Voter |
| Mutgan, Okan  | Nokia  | TRUE  | Voter |
| Myles, Andrew  | Cisco Systems, Inc.  | TRUE  | Voter |
| Nagai, Yukimasa  | Mitsubishi Electric Research Labs (MERL)  | FALSE  | Voter |
| nagata, kengo  | Nippon Telegraph and Telephone Corporation (NTT)  | TRUE  | Voter |
| Naik, Gaurang  | Qualcomm Incorporated  | TRUE  | Voter |
| Nakano, Hiroki  | CAHI Corporation; Kyoto University  | TRUE  | Voter |
| Nam, Junyoung  | Qualcomm Incorporated  | TRUE  | Voter |
| Nam, Sol-eep  | Intellectual Discovery  | FALSE  | Non-Voter |
| Namvar, Nima  | Charter Communications  | TRUE  | Aspirant |
| Nandagopalan, SAI SHANKAR  | Synaptics  | TRUE  | Voter |
| Narengerile, Narengerile  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Naribole, Sharan  | Apple Inc.  | TRUE  | Voter |
| Nassiri Toussi, Karim  | Broadcom Corporation  | TRUE  | Voter |
| Nayak, Peshal  | Samsung Research America  | TRUE  | Voter |
| Ng, Boon Loong  | Samsung Research America  | TRUE  | Voter |
| Nguyen, An  | U.S. Department of Homeland Security  | TRUE  | Voter |
| Nikolich, Paul  | self employed/various  | FALSE  | ExOfficio |
| Noh, Yujin  | Senscomm  | TRUE  | Voter |
| Omar, Hassan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Orlando, Christian  | IEEE  | FALSE  | Non-Voter |
| Orr, Stephen  | Cisco Systems, Inc.  | TRUE  | Voter |
| Ouchi, Masatomo  | Canon  | TRUE  | Voter |
| Palm, Stephen  | Broadcom Corporation  | TRUE  | Voter |
| Pandey, Sheetal  | ON Semiconductor  | TRUE  | Voter |
| Pare, Thomas  | MediaTek Inc.  | TRUE  | Voter |
| Parekh, Jatin  | Arista Networks, Inc.  | TRUE  | Voter |
| Park, Eunsung  | LG ELECTRONICS  | TRUE  | Voter |
| Park, Minyoung  | Intel Corporation  | TRUE  | Voter |
| Park, Sungjin  | Senscomm  | TRUE  | Potential Voter |
| Parsons, Glenn  | Ericsson AB  | TRUE  | ExOfficio |
| Patil, Abhishek  | Qualcomm Incorporated  | TRUE  | Voter |
| 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 |
| Pirhonen, Riku  | NXP Semiconductors  | FALSE  | Voter |
| Porat, Ron  | Broadcom Corporation  | TRUE  | Voter |
| Powell, Clinton  | Facebook  | FALSE  | ExOfficio |
| Ptasinski, Henry  | Element78 Communications LLC  | TRUE  | Voter |
| Puducheri, Srinath  | Broadcom Corporation  | TRUE  | Voter |
| Pulikkoonattu, Rethnakaran  | Broadcom Corporation  | TRUE  | Voter |
| Pushkarna, Rajat  | Panasonic Asia Pacific Pte Ltd.  | TRUE  | Voter |
| Qi, Emily  | Intel Corporation  | TRUE  | Voter |
| Rai, Kapil  | Qualcomm Incorporated  | TRUE  | Voter |
| Raissinia, Alireza  | Qualcomm Incorporated  | TRUE  | Voter |
| Rantala, Enrico-Henrik  | Zeku  | TRUE  | Voter |
| Ratnam, Vishnu  | Samsung Research America  | TRUE  | Voter |
| Redlich, Oded  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Regev, Dror  | Toga Networks (a Huawei Company)  | TRUE  | Voter |
| REICH, MOR  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Rezk, Meriam  | Qualcomm Incorporated  | TRUE  | Voter |
| Riegel, Maximilian  | Nokia  | TRUE  | Voter |
| Rison, Mark  | Samsung Cambridge Solution Centre  | TRUE  | Voter |
| Robert, Joerg  | TU Ilmenau, Fraunhofer IIS  | FALSE  | Voter |
| Rodine, Craig  | Representing myself  | TRUE  | Potential Voter |
| Rolfe, Benjamin  | Blind Creek Associates  | FALSE  | Voter |
| Rosdahl, Jon  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Roy, Sayak  | NXP Semiconductors  | TRUE  | Voter |
| Ryu, Kiseon  | NXP Semiconductors  | TRUE  | Voter |
| Sahoo, Anirudha  | National Institute of Standards and Technology  | TRUE  | Voter |
| Salem, Mohamed  | Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Sambasivan, Sam  | AT&T  | TRUE  | Voter |
| Sand, Stephan  | German Aerospace Center (DLR)  | TRUE  | Voter |
| Sandhu, Shivraj  | Qualcomm Incorporated  | FALSE  | Voter |
| Sarris, Ioannis  | Adveos  | TRUE  | Voter |
| Sato, Naotaka  | Sony Group Corporation  | TRUE  | Voter |
| Sato, Takuhiro  | SHARP CORPORATION  | TRUE  | Voter |
| Satrasala, Rajeshwari  | NXP Semiconductors  | TRUE  | Voter |
| Schelstraete, Sigurd  | Maxlinear  | TRUE  | Voter |
| Schweizer, Benedikt  | Apple Inc.  | TRUE  | Aspirant |
| Scott, Andy  | NCTA  | TRUE  | Voter |
| Segev, Jonathan  | Intel Corporation  | TRUE  | Voter |
| Seo, Sangho  | Broadcom Corporation  | TRUE  | Voter |
| Seok, Yongho  | MediaTek Inc.  | TRUE  | Voter |
| Serafimovski, Nikola  | pureLiFi  | TRUE  | Voter |
| Sethi, Ankit  | NXP Semiconductors  | TRUE  | Voter |
| Shafin, Rubayet  | Samsung Research America  | TRUE  | Voter |
| Shaw, Amit  | Infineon Technologies  | TRUE  | Voter |
| Shellhammer, Stephen  | Qualcomm Incorporated  | TRUE  | ExOfficio |
| Shen, Andy  | Futurewei Technologies  | TRUE  | Aspirant |
| Shen, Xiaoman  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sherlock, Ian  | Texas Instruments Inc.  | TRUE  | Voter |
| Shilo, Shimi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Shirakawa, Atsushi  | SHARP CORPORATION  | TRUE  | Voter |
| Shu, Tongxin  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Sinn, Ulrich  | Siemens AG  | TRUE  | Voter |
| Smith, Graham  | SR Technologies  | TRUE  | Voter |
| Smith, Luther  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| So, Youngwan  | Samsung Electronics Co., Ltd.  | FALSE  | Non-Voter |
| Son, Ju-Hyung  | WILUS Inc.  | TRUE  | Voter |
| Song, Hao  | Intel Corporation  | TRUE  | Voter |
| Sood, Ayush  | Infineon Technologies  | TRUE  | Voter |
| Sosack, Robert  | Molex Incorporated  | TRUE  | Voter |
| Srinivasa, Sudhir  | NXP Semiconductors  | TRUE  | Voter |
| Srivatsa, Veena  | Synaptics; Synaptics Incorporated  | TRUE  | Voter |
| Stacey, Robert  | Intel Corporation  | TRUE  | Voter |
| Stanley, Dorothy  | Hewlett Packard Enterprise  | TRUE  | Voter |
| Stavridis, Athanasios  | Ericsson AB  | TRUE  | Voter |
| Stepanov, Max  | Intel Corporation  | TRUE  | Voter |
| Stott, Noel  | Keysight Technologies  | TRUE  | Voter |
| Strauch, Paul  | Qualcomm Incorporated  | TRUE  | Voter |
| Su, Hang  | Broadcom Corporation  | TRUE  | Voter |
| SU, HONGJIA  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sugirtharaj, David  | Ericsson AB  | TRUE  | Aspirant |
| Suh, JUNG HOON  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sumi, Takenori  | Mitsubishi Electric Corporation  | TRUE  | Voter |
| Sun, Bo  | ZTE Corporation  | TRUE  | Voter |
| Sun, Li-Hsiang  | Sony Corporation  | TRUE  | Voter |
| Sun, Yanbin  | Huawei Technologies Co., Ltd  | FALSE  | Aspirant |
| Sun, Yanjun  | Qualcomm Incorporated  | TRUE  | Voter |
| SURACI, FRANK  | U.S. Department of Homeland Security  | TRUE  | Voter |
| Szott, Szymon  | AGH University of Science and Technology  | TRUE  | Voter |
| Tadahal, Shivkumar  | Broadcom Corporation  | TRUE  | Potential Voter |
| Tanaka, Yusuke  | Sony Group Corporation  | TRUE  | Voter |
| Taori, Rakesh  | Infineon Technologies  | TRUE  | Voter |
| Thakore, Darshak  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Potential Voter |
| Thakur, Sidharth  | Apple Inc.  | TRUE  | Aspirant |
| Thota, Sri Ramya  | Infineon Technologies  | TRUE  | Voter |
| Tian, Bin  | Qualcomm Incorporated  | FALSE  | Voter |
| Tolpin, Alexander  | Intel Corporation  | TRUE  | Voter |
| Torrijo, Alejandro  | MaxLinear Corp  | TRUE  | Voter |
| Trainin, Solomon  | Qualcomm Incorporated  | TRUE  | Voter |
| Tsai, Tsung-Han  | MediaTek Inc.  | TRUE  | Voter |
| Tsodik, Genadiy  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Tsujimaru, Yuki  | Canon Inc.  | TRUE  | Voter |
| TU, Chunjiang  | Bestechnic INC.  | TRUE  | Voter |
| Turner, Michelle  | IEEE STAFF  | FALSE  | Non-Voter |
| Uln, Kiran  | Infineon Technologies  | TRUE  | Voter |
| Urabe, Yoshio  | Panasonic Holdings Corporation  | TRUE  | Voter |
| Van Nee, Richard  | Qualcomm Incorporated  | TRUE  | Voter |
| Van Zelst, Allert  | Qualcomm Incorporated  | TRUE  | Voter |
| Varshney, Prabodh  | Nokia  | TRUE  | Voter |
| Venkatesan, Ganesh  | Intel Corporation  | TRUE  | Voter |
| Verenzuela, Daniel  | Sony Corporation  | TRUE  | Voter |
| Verma, Lochan  | Apple Inc.  | FALSE  | Voter |
| Verma, Sindhu  | Broadcom Corporation  | TRUE  | Voter |
| Vermani, Sameer  | Qualcomm Incorporated  | TRUE  | Voter |
| Vicent Colonques, Santiago  | Maxlinear Corp  | TRUE  | Voter |
| VIGER, Pascal  | Canon Research Centre France  | TRUE  | Voter |
| Vituri, Shlomi  | Intel Corporation  | TRUE  | Potential Voter |
| Wang, Chao Chun  | MediaTek Inc.  | TRUE  | Voter |
| Wang, Hejun  | Haier Group Corporation  | TRUE  | Aspirant |
| Wang, Huizhao  | Quantenna Communications, Inc.  | TRUE  | Voter |
| Wang, Lei  | Futurewei Technologies  | TRUE  | Voter |
| Wang, Qi  | Apple, Inc.  | TRUE  | Voter |
| Wang, Shukun  | Beijing OPPO telecommunications corp., ltd.  | TRUE  | Aspirant |
| Wang, Steven Qi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Wang, Xiaofei  | InterDigital, Inc.  | TRUE  | Voter |
| Wang, Yi  | Huawei Technologies Co., Ltd  | FALSE  | Non-Voter |
| Wang, Yi-Hsiu  | Zeku  | TRUE  | Voter |
| Wang, Zisheng  | ZTE Corporation  | FALSE  | Voter |
| Want, Roy  | Google  | TRUE  | Voter |
| Ward, Lisa  | Rohde & Schwarz  | TRUE  | Voter |
| Wei, Dong  | NXP Semiconductors  | TRUE  | Voter |
| Wendt, Matthias  | Signify  | TRUE  | Voter |
| Wentink, Menzo  | Qualcomm Incorporated  | TRUE  | Voter |
| Wilhelmsson, Leif  | Ericsson AB  | TRUE  | Voter |
| Wu, Kanke  | Qualcomm Incorporated  | FALSE  | Voter |
| Wu, Tianyu  | Apple, Inc.  | TRUE  | Voter |
| Wu, Wayne  | MediaTek Inc.  | TRUE  | Voter |
| Wullert, John  | Peraton Labs  | TRUE  | Voter |
| Xia, Qing  | Sony Corporation  | TRUE  | Aspirant |
| Xiao, Bo  | ZTE Corporation  | TRUE  | Voter |
| Xin, Liangxiao  | Sony Corporation  | TRUE  | Voter |
| Xin, Yan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Xu, Fangxin  | Longsailing Semiconductor  | TRUE  | Aspirant |
| Xu, Weijie  | Beijing OPPO telecommunications corp., ltd.  | TRUE  | Aspirant |
| Xu, Yanchao  | Zeku  | TRUE  | Potential Voter |
| Xue, Qi  | Qualcomm Incorporated  | TRUE  | Voter |
| YAGHOOBI, HASSAN  | Intel Corporation  | TRUE  | Voter |
| Yamada, Ryota  | SHARP CORPORATION  | TRUE  | Voter |
| Yan, Aiguo  | Zeku  | TRUE  | Voter |
| Yan, Zhongjiang  | Northwestern Polytechnical University  | TRUE  | Voter |
| Yang, Bo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Yang, Jay  | Nokia  | 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 |
| Yee, James  | MediaTek Inc.  | TRUE  | Voter |
| Yee, Peter  | NSA-CSD  | TRUE  | Voter |
| Yi, Yongjiang  | Spreadtrum Communication USA, Inc  | TRUE  | Voter |
| Yin, Shuang  | Google  | FALSE  | Non-Voter |
| Yokoyama, Takahiro  | Association of Radio Industries and Businesses (ARIB)  | TRUE  | Voter |
| Yong, Su Khiong  | Apple, Inc.  | TRUE  | Voter |
| Yoon, Kangjin  | Meta  | FALSE  | Non-Voter |
| Young, Christopher  | Broadcom Corporation  | TRUE  | Voter |
| Yu, Jian  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Yu, Mao  | Anyka  | TRUE  | Voter |
| Yuan, Fangchao  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zein, Nader  | NEC Europe (NLE)  | TRUE  | Voter |
| Zeng, Yan  | Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Zhang, Hongyuan  | NXP Semiconductors  | TRUE  | Voter |
| Zhang, Jiayi  | Ofinno  | TRUE  | Voter |
| ZHANG, JIAYIN  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zhang, Yan  | NXP Semiconductors  | TRUE  | Voter |
| Zhou, Lei  | H3C Technologies Co., Limited  | TRUE  | Voter |
| Zhou, Pei  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Zhou, Renlong  | ZTE Corporation  | TRUE  | Potential Voter |
| Zhu, lihua  | Ruijie Networks Co., Ltd  | TRUE  | Aspirant |
| Zhu, Peiying  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zuniga, Juan Carlos  | Cisco Systems, Inc.  | TRUE  | Voter |
| Zuo, Zhisong  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Aspirant |

Note: Status reflects session attendance prior to application of ballot returns.

**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 |
| Peter Ecclesine(Cisco Systems, Inc.) | Co-Technical Editor | +1 (408) 710-3403petere@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) Chair | +1-719-286-8660jim.lansford@ieee.org |
| Mark Hamilton(Ruckus Wireless) | Architecture (ARC) Chair | +1 (303) 818-8472mark.hamilton2152@gmail.com |
| Jon Rosdahl(Qualcomm) | Project Authorization Request (PAR) review Chair | +1 (801) 492-4023jrosdahl@ieee.org |
| Andrew Myles(Cisco) | Coexistence Standing Committee Chair | +61 418 656587amyles@cisco.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 (Koden-TI) | TGbc ChairBroadcast Services (BCS) | marc.emmelmann@me.com |
| Bo Sun (ZTE) | TGbd ChairNext Generation V2X (NGV) | sun.bo1@zte.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  |

|  |
| --- |
|  |

**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(ZTE) | Ambient Power IoT (AMP) TIG | sun.bo1@zte.com.cn  |

**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 |
| Edward Au(Huawei Technologies Co., Ltd) | Liaison to IEEE 802.18 | edward.ks.au@gmail.com  |
| Tuncer Baykas(Istanbul Medipol Universitesi) | 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 meeting. 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 | 22-0967r0 |
| TGme | TG | 22-1155r1 |
| TGaz | TG | 22-1183r0 |
| TGbb | TG | 22-1156r0 |
| TGbc | TG | 22-0774r0 |
| TGbd | TG | 22-1096r0 |
| TGbe | TG | 22-1077r5 |
| TGbf | TG | 22-1151r0 |
| TGbh | TG | 22-1272r0 |
| TGbi | TG | 22-1153r0 |
| COEX | SC | 22-0xxxr0 |
| WNG | SC | 22-1040r0 |
| JTC 802 | SC | 22-0xxxr0 |
| ARC | SC | 22-1127r0 |
| PAR | SC | 22-0948r0 |
| AIML | TIG | 22-1132r1 |
| AMP | TIG | 22-1136r0 |

**Annex D : Revisions and Standards Pipeline**

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**IEEE 802.11 Standards Pipeline**

End.