IEEE P802.11
Wireless LANs

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| Minutes of the IEEE P802.11 Full Working Group |
| Date: 2023-07-12 |
| Author(s): |
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Abstract

This document constitutes the minutes of the IEEE 802.11 full working group for the July 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 #200**

**July 9th – 14th, 2023**

**IEEE 802.11 Opening Plenary, Monday July 10th, 2023**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 10:31 Central European Summer Time (CEST) 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, 83, Aspirants, 34 Potential Voters and 11 Ex Officio voters of IEEE 802.11\*

There were 173 people attending in person (in the room) and 258 on Webex. (383 IMAT) (240 Unique Webex).

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

1. **Notices** (11-23-0980r1)
	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. Chris Orlando
		2. Lisa Perry
	4. Please note that this session requires a registration fee to be paid.
2. **Approve/modify working group agenda** (11-23-0979r3)
	1. This is a summary of the meeting today. Please note the schedule for this session on the separate tab “Schedule Graphic”.
	2. There has been a change to the order of the 802.18 liaison from Wednesday to today.
	3. **Move to approve the agenda 11-23-0979r3 for the Monday opening plenary.**
		1. Moved: Marc Emmelmann, 2nd: Jonathan Segev
		2. No objection to approving by unanimous consent.
3. **May 2023 WG Minutes**
	1. **Move to approve the May 2023 WG minutes document 11-23-0886r1**
	2. Moved: Stephen McCann, 2nd: Allan Jones
	3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
	4. Action: Stephen McCann to verify the subgroup minutes documents with regard to including full motion text.
4. **New Attendees**
	1. **Straw Poll: Are you a new attendee to IEEE 802.11?**
		1. Yes: 18
	2. There will be a New Members meeting this week on Tuesday July 11th at 10:30 CEST in room 9. Everyone is welcome to join this meeting.
5. **Call for essential Patents** (11-23-0986r0)
	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** (11-23-0986r0)
	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** (11-23-0980r1)
	1. **Liaisons** (slide #4)
		1. Chair: There is an outstanding liaison form the WBA. The UHR Study Group (SG) 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 and for upcoming EC 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** ([11-23/0978r2](https://mentor.ieee.org/802.11/dcn/23/11-23-0978-02-0000-1st-vice-chair-report-2023-july-plenary-berlin.pptx))
	1. If you have any audio-visual issues this week, please contact the registration desk, as shown on slide #6
	2. Please don’t take photographs during the meetings.
	3. Please remember to register your attendance using IMAT.
	4. This session requires registration, so please follow the link to pay the registration fee.
	5. There is a QR code on your badge material that will allow you to access the online schedule.
	6. 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.
	7. The Estrel hotel runs a series of concerts and if you are interested, please ask at the front desk.
	8. The next plenary session is at the Hilton Hawaiian Village in Honolulu in November 2023. The registration will open in the middle of August 2023.
	9. C: I just want to mention that this venue is not very suitable for people with disabilities. It is very disappointing.
	10. C: Your comment is noted. The hotel will be contacted about this.
	11. The next interim meeting will be in September 2023 (Atlanta).
	12. Straw polls on slide #16 were held to determine the Friday refreshments counts
9. **WG Information** (11-23-0980r1)
	1. These slides contain information about the following topics:
		1. IEEE 802.11 recent amendment status (e.g. 11bb and 11bc).
		2. IEEE 802.11 officers. Please note that there is an open position for TGbi secretary.
		3. Recent Ballots (e.g. TGbh).
		4. Historic membership slides (slide #23).
10. **Group Summaries** (11-23-0985r1)
	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 (11-11-0270r68). There have been a few changes based on recent MDRs (Mandatory Draft Review).
		2. There is a conflict between some ANQP Info IDs between REVme and 11bc, which needs to be resolved. Several possible solutions are being investigated.
		3. 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. IEEE Std 802 revision project.
			2. Annex G, way forward
			3. WBA liaison about QoS
			4. Definition of “IEEE 802 Network”.
		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. This standing committee will meet Monday and Thursday this week to discuss 6 PARs/ICAIDs under consideration. The 11bn PAR will not be considered.
		2. No questions.
	6. **WNG** (slide #9)
		1. There are 5 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 complete comments from the letter ballot (LB) 273 that passed with 92.7% approval. There are 6 meetings this week.
		2. No questions.
	9. **TGbe** (slide #14)
		1. There was a 3 day ad-hoc here in Berlin last week that worked on comment resolutions from LB 271. Thank you to the host Fraunhofer HHI for supporting this meeting.
		2. No questions.
	10. **TGbf** (slide #16)
		1. There was a 3 day ad-hoc in Lund, Sweden last week that worked on comment resolutions from LB 272. Thank you to the host Ericsson for supporting this meeting.
		2. No questions.
	11. **TGbh** (slide #20)
		1. The initial letter ballot (LB274) completed with an approval rate of 91.82%. The work this week will be to start working on comment resolutions.
		2. No questions.
	12. **TGbi** (slide #21)
		1. The group is still addressing feature definitions this week and looking at initial technical submissions.
		2. The secretary Amelia Andersdotter has had to stand down as TG secretary and many thanks to her for her work. If you are interested in the TGbi secretary position, please contact the TGbi Chair.
		3. No questions.
	13. **TGbk** (slide #22)
		1. The group has published a initial draft D0.1 and will work on updating this draft during the week.
		2. No questions.
	14. **UHR SG** (slide #25)
		1. Work this week will be to consider comments from the other IEEE 802 WGs/TAGs on the 11bn PAR and CSD.
		2. No questions.
	15. **AMP SG** (slide #27)
		1. There will be 4 meetings this week for the development of an AMP PAR and the associated CSD.
		2. No questions.
	16. **AIML TIG** (slide #29)
		1. The activity this week is to continue the discussion of use cases and technical contributions for this topic.
		2. Hopefully there will be a presentation to the UHR SG later this week.
		3. No questions.
	17. **ITU ad-hoc** (slide #31)
		1. There is 1 meeting this week to discuss the results of the last Working Party 5A meeting in May, where the IEEE had some contributions.
		2. No questions.
11. **IEEE 802.18 Liaison** (11-23-0964r2)
	1. The WG currently has an open position for secretary, so please let the chair know if you can assist.
	2. The work this week is to review the latest ongoing regulatory consultations (e.g. Taiwan and China), together with other topics within 2 meeting slots.
	3. There are also some topics from ETSI BRAN.
	4. There will be also a presentation about re-mapping the RF spectrum.
	5. No questions.
12. **IEEE 802 Revision**
	1. IEEE 802.1 is hosting one meeting this week to consider the IEEE 802 Revision activity. This is related to the ongoing work in IEEE 802.11 ARC SC.
	2. No questions.
13. **Announcements**
	1. **Tutorial**
	2. This evening there is a tutorial about the IETF RAW project. Information about this is available on the IEEE 802 website: <https://www.ieee802.org/Tutorials.shtml>.
	3. No questions.
	4. **July 2023 designation of individual experts** (11-23-0980r1 slide #20)
	5. There are 4 individuals who will be attending WNG this week, as individual experts.
	6. No questions.
	7. **11bn/IMMG groups** (11-23-0980r1 slide #21)
	8. There are two future groups that will require chairs. A call for candidates for the 11bn TG and the IMMG SG chair positions will be made shortly, so that the chairs can be in place by November 2023.
	9. No questions.
	10. **IEEE 802 standards**
	11. You should receive an email from IEEE 802 allowing you to download all the current IEEE 802 standards as an archive.
	12. No questions.
14. **Recess**
	1. Meeting recessed at 12:08 CEST.

**Wednesday, July 12th, 2023**

**IEEE 802.11 Mid-week Plenary**

Call to order at 13:31 CEST by Dorothy Stanley (HPE).

There were 102 attending in person (in the room). (342 IMAT) (300 Webex)

1. **Approve/modify working group agenda** (11-23-0979r4)
	1. Chair: There have been some schedule changes to the agenda since the opening plenary, involving PAR SC and REVme on Thursday.
	2. Q: Is there a liaison report regarding IEEE 802c?
	3. A: No, that will be presenting during Friday’s closing plenary.
	4. **Approve the agenda for the today’s meeting as shown in 11-23-0979r4.**
		1. Moved: Nikola Serafimovski, 2nd: Stuart Kerry
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-23-0981r0)
	1. **Call for essential patents** (slide #7)
		1. This is the Call for Essential Patents
		2. No statements.
		3. No questions.
	2. **Meeting decorum** (slide #8)
		1. No members of the press are present.
		2. No questions.
3. **Social**
	1. This is a reminder about the social this evening that will be held by the side of the river outside the hotel 18:30 CEST.
	2. If you have a guest, please remember to collect a badge for them.
4. **Timeline**
	1. No major changes to any dates at the moment. There will be some minor updates to TGbh (letter ballot results) and REVme (interim draft number updates).
	2. No questions.
5. **Wi-Fi Alliance Liaison** (11-23-1153r0)
	1. The next Wi-Fi Alliance (WFA) meeting will be in Prague in October 2023.
	2. The last meeting was held in Mexico City in June 2023.
	3. No questions.
6. **IETF Liaison** (11-23-1263r0)
	1. The next meeting will be in San Francisco in July 2023.
	2. There was a tutorial on the RAW topic this week on Monday evening.
	3. Several groups that may have an impact on IEEE 802.11 are mentioned.
	4. No questions.
7. **IEEE 802.19 Liaison** (11-23-1217r1)
	1. This document summarizes the discussion topics within IEEE 802.19 meetings.
	2. No questions.
8. **PAR Corrigendum 2** (11-23-1275r2)
	1. This is a proposed corrigendum PAR to correct an error in the approved (and about to be published) IEEE Std 802.11bc-2023.
	2. Q: Does this impact the publication of IEEE 802.11bc-2023?
	3. A: No.
	4. Q: What is the background to this?
	5. A: Only a subset of tables from 802.11 are under ANA control. The editors were unaware that ANQP Info IDs were under ANA control, and this was missed. Unfortunately, the ANA database only states “Info IDs”, not “ANA Info IDs”. Going forward, these number spaces will be advertised to the editors’ meeting.
	6. Chair: I think we should have a process to avoid this happening in the future.
	7. C: Regarding the PAR, can you change “NesCom” to “RevCom”
	8. Q: Regarding the number of people involved in the project, I think this is quite high.
	9. A: That number reflects the number of voting members in 802.11.
	10. Q: I appreciate that this is the correct way to change this error. However, 802.11bc is not published yet? Why do we need this process to change a single number?
	11. Chair: I completely agree with your point of view. However, 802.11bc has already been approved by RevCom and thus this is process we have to go through.
	12. C: This is regarded as a technical change by the IEEE, so it requires an audited process.
	13. No questions.
9. **Working Group Motions (Old Business)** (11-23-0999r1)
	1. **Motion 1: IEEE 802.11 COR2 PAR**
		1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines,**
		2. **Request that the PAR contained in https://mentor.ieee.org/802.11/dcn/23/11-23-1275-02-0000-par-corrigendum-1-correct-assignment-of-anqp-info-id-for-ebcs-in-802-11bc.docx be posted to the IEEE 802 Executive Committee (EC) agenda for EC approval to submit to NesCom, granting the WG chair editorial license.**
		3. Moved: Marc Emmelmann, Second: Nikola Serafimovski
		4. Result: Yes: 119, No: 0, Abstain: 19 (Motion passes)
	2. **Motion 2: P802.11bn PAR approval**
		1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines,**
		2. **Request that the PAR contained in** [**https://mentor.ieee.org/802.11/dcn/23/11-23-0480-02-0uhr-uhr-proposed-par.pdf**](https://mentor.ieee.org/802.11/dcn/23/11-23-0480-02-0uhr-uhr-proposed-par.pdf) **be posted to the IEEE 802 Executive Committee (EC) agenda for EC approval to submit to NesCom, granting the WG chair editorial license.**
		3. Moved by Laurent Cariou on behalf of UHR SG/Second: Allan Jones
		4. Result: Yes: 136, No: 14, Abstain: 18 (Motion passes)
		5. [UHR SG: Moved: Rolf de Vegt, 2nd: Brian Hart, Result: 175/14/18]
	3. **Motion 3: P802.11bn CSD approval**
		1. **Believing that the CSD contained in the document referenced below meets IEEE 802 guidelines,**
		2. **Request that the CSD contained in** [**https://mentor.ieee.org/802.11/dcn/23/11-23-0079-09-0uhr-uhr-draft-proposed-csd.docx**](https://mentor.ieee.org/802.11/dcn/23/11-23-0079-09-0uhr-uhr-draft-proposed-csd.docx) **be posted to the IEEE 802 Executive Committee (EC) agenda for EC preview and approval.**
		3. Moved by Laurent Cariou on behalf of UHR SG/Second: Rolf de Vegt
		4. Result: Yes: 153, No: 5, Abstain: 23 (Motion passes)
		5. [UHR SG: Moved: Rolf de Vegt, 2nd: Akira Kishida, Result: 168/9/18]
10. **WBA Liaison Regarding QoS** (11-23-1206r0)
	1. This is a liaison from the Wireless Broadband Alliance (WBA) regarding End to End (E2E) QoS.
	2. The submission also includes a general introduction to the WBA.
	3. There is a call for participation to IEEE 802.11 members to engage with this project.
	4. C: There will be a follow up discussion in the IEEE 802.11 ARC meeting in PM1 on Thursday.
	5. Q: Regarding encrypted traffic, TGm have discussed this in the past and it is very difficult for 802.11 to determine the packet content of encrypted packets. I understand that the mapping is done to UP5. How does WBA approach this problem?
	6. A: 802.11 can only using the marking of packets from the upper layer applications. The WBA doesn’t really have recommendations.
	7. C: I think the mapping is actually UP6 = VO. In addition, implementations are adopting DSCP to UP mapping, as described in RFC832.
	8. C: IEEE 802.11u introduced the QoS Map concept that could be developed.
11. **P802.11bb Implentation Example** (11-23-1260r0)
	1. This submission explains an P802.11bb implementation example.
	2. Please look at the demonstration at the front of the room, once this meeting has recessed.
	3. Chair: Thank you to Nikola Serafimovski for bringing this 802.11bb equipment for demonstration. Also, thanks to Volker Jungnickel for bringing demonstration equipment that supports 802.15.13.
12. **Any other Business (AoB)**
	1. None.
	2. Q: Please can you put the motion deck 11-23-0999r1 on the server please?
	3. A: Yes.
13. **Recess**
	1. Meeting recessed at 14.39 CEST.

**Friday, July 14th, 2023**

**IEEE 802.11 Closing Plenary**

Call to order at 08:01 CEST by Dorothy Stanley (HPE).

There were 200 people in the meeting (Webex), with 76 attending in person (in the room). (240 IMAT)

1. **Approve/modify working group agenda** (11-23-0979r6)
	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 11-23-0979r6.**
		1. Moved: Allan Jones, 2nd: Stuart Kerry
		2. No objection to approving by unanimous consent.
2. **Announcements** (11-23-0981r1)
	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 September 10-15, 2023. It will be a mixed mode session in Buckhead, Atlanta.
		2. Please be aware of the chair’s committee meetings (CAC), the first one of which will be on August 7th at 09:00 ET. Please note the deadline for the sub-group agendas.
	5. **Coffee break**
		1. This will be available in the back of this meeting room.
	6. **Sub-group minutes**
		1. Please note that sub-group minutes should be completed within 30 days from the close of this plenary.
		2. Chair: Please remember that all minutes need to capture all motions with their full text.
	7. **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.
	8. **IEEE Store and ISO SC6** (slides #18 - #19)
		1. This is summary of drafts that have been liaised to ISO/IEC.
		2. No questions.
	9. **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. There will be an IEEE 802 related webinar in the September/October time frame.
		3. No questions.
	10. **IEEE 802 Public Visibility Standing Committee** (slide #21)
		1. This IEEE 802 group is designed to increase the external visibility of IEEE 802.
		2. No questions.
	11. **IEEE 802.11 Public Visibility Standing** (slide #22)
		1. There are some specific IEEE 802.11 events coming up, as shown on the slide.
		2. Wi-Fi Now held a tutorial about 802.11az that explains this technology in detail. It is publicly available at the link shown on the slide.
		3. The next IEEE Computer Society webinar about location will be in November 2023.
		4. No questions.
3. **Treasury Report** (ec-23-0003r5)
	1. VC1: This shows the treasurers’ report and is correct as of June 30th, 2023.
	2. Please note there are some outstanding bills that need to be paid. Therefore, the actual reserve is around US$500,000.
	3. The registration fees for November 2023 will be decided by the EC meeting this afternoon.
	4. Generally speaking, the number of people attending in-person is slowly increasing.
	5. No questions.
4. **July 2023 Venue Straw Polls** (11-23-0987r0 - 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: 46
		2. No: 14
	3. **2. Did you go to the social?**
		1. Yes: 70
		2. No: 3
	4. **3. If you attended the social, did you enjoy it?**
		1. Yes: 62
		2. No: 1
		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.
5. **Future Venue Straw Polls** (11-23-0999r3)
	1. **September 2023**
	2. **1. If the 2023 September 802 Interim Session were held at the Grand Hyatt, Buckhead, Atlanta, as an in-person only session, would you attend?**
	3. Yes: 57
	4. No: 57
	5. Abstain: 13
	6. **2. If the 2023 September 802 Interim Session were held at the Grand Hyatt, Buckhead, Atlanta, as a mixed-mode session, will you attend?**
	7. Attend In-person: 56
	8. Attend Virtually (remotely): 68
	9. Will not attend: 9
	10. **November 2023**
	11. **1. If the 2023 November 802 Wireless Plenary Session were held at the Hilton Hawaiian Village, Honolulu, as an in-person only session, would you attend?**
	12. Yes: 67
	13. No: 40
	14. Abstain: 14
	15. **2. If the 2023 November 802 Wireless Plenary Session were held at the Hilton Hawaiian Village, Honolulu, as mixed-mode session, will you attend?**
	16. Attend In-person: 65
	17. Attend Virtually (remotely): 58
	18. Will not attend plenary: 5
	19. **Comments**
	20. C: It’ not a good time to have these polls on a Friday morning. Perhaps they could be run during the mid-week plenary.
	21. C: These questions have been asked for 3 years. Maybe we should charge extra for remote participation, and this should be mentioned in the polls.
	22. Chair: This has been discussed at the IEEE 802 Executive Committee (EC) meeting.
	23. C: Perhaps voting is only allowed for in-person attendance. People who attend virtually just follow the proceedings.
	24. Chair: Again, the EC has discussed this issue.
	25. C: There are some people who struggle to obtain visas to attend the meetings in-person.
6. **Future Venues Manager Report** (ec-23-0001r2)
	1. There is no major update since the March 2023 meeting.
	2. Slide #3 shows the upcoming interim sessions for the next couple of years.
	3. Note the update for January 2025, this meeting will be in Kobe, Japan.
	4. May 2025 should be in Europe or Asia.
	5. Slide #4 shows the upcoming plenaries.
	6. No questions.
7. **Timeline update**
	1. The main changes are for the TGbk timeline. The timeline chart should be updated shortly.
	2. No questions.
8. **Attendance statistics** (11-23-0987r1 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 and this session is almost a historic high for IEEE 802.11.
9. **WG Committee Reports** (11-23-0987r1)
	1. **Editors** (slide #11)
		1. There were various discussions about MDR topics for REVme.
		2. An 11bc allocated number was found to be conflict with IEEE 802.11-2020. The issue is because editors were not aware of specific number tables which are under ANA control, due to a naming error.
		3. Slide #16 shows the current amendment ordering.
		4. 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). One comment was regarding the definition of the term “IEEE 802 Network”. The final decision was to remove this term, as no consensus could be reached (at the IEEE 802 level).
		3. Discussions about Annex G also continued.
		4. A WBA liaison (11-23-1206r0) is available for information.
		5. No questions.
	3. **Coex SC** (slide #24)
		1. There have been various issues discussed during the week.
		2. Discussions include updates from ETSI BRAN and the Bluetooth SIG.
		3. Other topics included narrowband LBT simulations.
		4. No questions.
	4. **PAR SC** (slide #34)
		1. The meeting reviewed 4 PARs/CSDs and 1 ICAID this week.
		2. No questions.
	5. **WNG** **SC** (slide #35)
		1. There were 4 presentations this session:
		* “Experiment Results with Wi-Fi to Li-Fi Offloading in an Office Environment” Thomas Sandholm (Cable Labs), 23/1068r0
		* “Multi-BSS Network Simulation with ns-3: A Status Update” Sumit Roy (University of Washington), 23/1158r0
		* “Band Management Challenges for 802.11be and Beyond” Daniele Medda, Athanasios Iossifides and Periklis Chatzimisios (International Hellenic University), 23/1187r0
		* “COST Action INTERACT: Intelligence-Enabling Radio Communications for Seamless Inclusive Interactions” Periklis Chatzimisios (International Hellenic University & University of New Mexico), 23/1211r0.
		1. There was a 5th item, which has been deferred to the September 2023 session.
		2. No questions.
	6. **JTC1 SC** (slide #38)
		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.
	7. **TGme** (slide #41)
		1. This session, the group finished working on comments from LB273.
		2. The group now hopes to move forward with conditional SA ballot.
		3. There will be a REVme ad-hoc in October 2023.
	8. **TGbe** (slide #49)
		1. There were 10 meeting slots in this session finishing the comment resolutions from LB271. There hopefully will be a re-circulation letter ballot with 11be D4.0.
		2. No questions.
	9. **TGbf** (slide #53)
		1. Comment resolutions from the previous D1.0 letter ballot (LB272) have been completed and it is hoped to move forward with an 11bf D2.0 re-circulation ballot.
		2. C: regarding slide #57, it needs to be updated.
	10. **TGbh** (slide #58)
		1. The group completed D1.0 and has been working on comments this week.
		2. There were discussions about a WBA liaison and there is a motion about that later in this meeting.
		3. No questions.
	11. **TGbi** (slide #63)
		1. The group met 4 times during the week and discussed various topics.
		2. The plan is to produce an initial draft in September 2023.
		3. No questions.
	12. **TGbk** (slide #68)
		1. The group is now working on D0.2 and is progressing well. The timeline has been updated.
		2. No questions.
	13. **UHR SG** (slide #75)
		1. There were 5 meetings during this week, working on various comments on the PAR and CSD.
		2. Other technical submissions were also discussed during the week.
		3. No questions.
	14. **AMP SG** (slide #78)
		1. There were 4 meetings of this study group during the week, with 12 submission presentations.
		2. No questions.
	15. **AIML TIG** (slide #81)
		1. There were 4 meetings during the meeting.
		2. A use case and features summary was presented to the UHR SG (11-23-0924r2) and some future steps have been produced based on feedback from UHR SG.
		3. No questions.
	16. **ITU Ad-hoc** (slide #86)
		1. There was 1 meeting this week with no contributions this time.
		2. However, the meeting discussed various presentations form the recent ITU-R WP5A meeting.
		3. No questions.
10. **IEEE Std 802-REVc status** (11-23-1295r0)
	1. This activity is progressing well.
	2. There were 195 comments received from the D1.0 letter ballot. The next letter ballot will be later this summer on D2.0. (September 2023).
	3. No questions.
11. **Working Group Motions (Old Business)** (11-23-0999r3)
	1. **Motion 4: P802.11REVme Recirculation Letter Ballot**
		1. **Having approved comment resolutions for all of the comments received from LB 273 on P802.11REVme D3.0 as contained in documents 11-22/0065r21, incorporating comment resolutions on slides 25-29 in 11-23/0024r11 and changes in the MDR report 11-23/0717r13,**
		2. **Instruct the editor to prepare P802.11REVme Draft 4.0 incorporating these resolutions and,**
		3. **Approve a 15 day Working Group Recirculation Ballot asking the question “Should P802.11REVme D4.0 be forwarded to SA Ballot?”**
		4. Moved: Mike Montemurro on behalf of TGme
		5. Result: Unanimous Consent
		6. [TGme: Moved: Jouni Malinen, 2nd: Joseph Levy, Result: unanimous consent (25 present)]
	2. **Motion 5: P802.11REVme Report to EC**
		1. **Approve document 11-23/1041r1 as the report to the IEEE 802 Executive Committee on the requirements for conditional approval to forward P802.11REVme to SA Ballot.**
		2. Moved: Mike Montemurro on behalf of TGme, Second: David Halasz
		3. Result: Yes: 100, No: 0, Abstain: 9 (Motion passes)
		4. [TGme: Moved: Stephen McCann, 2nd: David Halasz, Results (Y/N/A): 18/0/2]
	3. **Motion 6: P802.11REVme Conditional SA Ballot**
		1. **Request the IEEE 802 Executive Committee to conditionally approve forwarding P802.11REVme to SA Ballot.**
		2. Moved: Mike Montemurro on behalf of TGme, Second: Lei Wang
		3. Result: Yes: 102, No: 0, Abstain: 2 (Motion passes)
		4. [TGme: Moved: Stephen McCann, 2nd: Henry Ptasinski, Results (Y/N/A): 17/0/1]
	4. **Motion 7: P802.11REVme PAR re-confirmation**
		1. **Re-confirm the P802.11REVme PAR in document https://mypr-nodejs.standards.ieee.org/mypr-file/par/8958/mypr**
		2. Moved: Mike Montemurro, Second: Harry Bims
		3. Result: Yes: 96, No: 0, Abstain: 7 (Motion passes)
	5. **Motion 8: TGme ad-hoc**
		1. **Authorize TGme to hold an ad-hoc meeting on Oct 10-12, with the preferred venue being Toronto, for the purpose of SA Ballot comment resolution.**
		2. Moved: Mike Montemurro on behalf of TGme
		3. Result: Unanimous Consent
		4. [TGme: Moved: Stephen McCann, 2nd: Joseph Levy, Results (Y/N/A): unanimous consent (25 present)]
	6. **Motion 9: P802.11be Recirculation Letter Ballot**
		1. **Having approved changes to P802.11be D3.0, as defined in 11-23/272r34, in addition to motions passed during the TGbe Joint sessions of July 13th 2023.**
		2. **Instruct the editor to prepare P802.11be Draft D4.0**
		3. **Approve a 20 day Working Group Technical Letter Ballot asking the question “Should P802.11be Draft 4.0 be forwarded to SA Ballot?”**
		4. Moved: Laurent Cariou, Second: Jouni Malinen
		5. Result: Unanimous Consent
		6. [TGbe: Moved: Abhishek Patil, 2nd: Subir Das, Result: 81/3/7]
	7. **Motion 10: P802.11bf Recirculation Letter Ballot**
		1. **Having approved comment resolutions for all of the comments received from LB272 on P802.11bf D1.0 as contained in document 11-23/0314r21,**
		2. [**https://mentor.ieee.org/802.11/dcn/23/11-23-0314-21-00bf-lb272-comments-and-approved-resolutions.xlsx**](https://mentor.ieee.org/802.11/dcn/23/11-23-0314-21-00bf-lb272-comments-and-approved-resolutions.xlsx)
		3. **Instruct the editor to prepare P802.11bf D2.0 incorporating these resolutions and,**
		4. **Approve a 20 day Working Group Recirculation Ballot asking the question “Should P802.11bf D2.0 be forwarded to SA Ballot?”**
		5. Moved by Tony Xiao Han on behalf of TGbf
		6. Result: Unanimous Consent
		7. [TGbf: Moved: Alecsander Eitan, 2nd: Dongguk Lim, Result: 18/0/1]
	8. **Motion 11: P802.11bh D1.0 in IEEE Store**
		1. **Approve P802.11bh D1.0 to be available for purchase from the IEEE Store.**
		2. Moved by Mark Hamilton on behalf of TGbh, Second: Joseph Levy
		3. Result: Yes: 84, No: 2, Abstain: 10 (Motion passes)
		4. [TGbh: Moved: Stephen Orr, 2nd: Jay Yang, Result: 16/0/2]
		5. C: There is a new staff publication check, so the delivery of this document to the IEEE store may take a little longer than we have seen before.
		6. Q: Regarding this new check, can it be done before waiting for this type of motion?
		7. Staff: Yes, the check can be arranged ahead of time. It’s not necessary to wait for the motion.
		8. Q: I assume that the next motion about liaising 11bh D1.0, will therefore be delayed until the P802.11bh D1.0 draft also has the same new check?
		9. A: Yes.
	9. **Motion 12: Liaison to WBA**
		1. **Request the IEEE 802.11 Working Group (WG) chair to send the liaison in 11-23/1305r0 to the Wireless Broadband Alliance (WBA) regarding P802.11bh D1.0, granting the WG chair editorial license.**
		2. Moved by Mark Hamilton, Second: Jouni Malinen
		3. Result: Yes: 89, No: 0, Abstain: 11 (Motion passes)
	10. **Motion 13: P802.11bn PAR approval**
		1. **Believing that the PAR contained in the document referenced below meets IEEE-SA guidelines,**
		2. **Request that the PAR contained in https://mentor.ieee.org/802.11/dcn/23/11-23-0480-03-0uhr-uhr-proposed-par.pdf be posted to the IEEE 802 Executive Committee (EC) agenda for EC approval to submit to NesCom, granting the WG chair editorial license.**
		3. Moved by Laurent Cariou on behalf of UHR SG, Second: Rolf de Vegt
		4. Result: Yes: 94, No: 4, Abstain: 15 (Motion passes)
		5. [UHR SG: Moved: Ross Jian Yu, 2nd: Rolf de Vegt, Result: 130/4/11]
	11. **Motion 14: P802.11bn CSD approval**
		1. **Believing that the CSD contained in the document referenced below meets IEEE 802 guidelines,**
		2. **Request that the CSD contained in https://mentor.ieee.org/802.11/dcn/23/11-23-0079-10-0uhr-uhr-draft-proposed-csd.docx be posted to the IEEE 802 Executive Committee (EC) agenda for EC preview and approval.**
		3. Moved by Laurent Cariou on behalf of UHR SG, Second: Allan Jones
		4. Result: Yes: 92, No: 1, Abstain: 14 (Motion passes)
		5. [UHR SG: Moved: Ross Jian Yu, 2nd: Akira Kishida, Result: 129/0/11]
	12. **Motion 15: UHR SG recharter.**
		1. **Request EC approval of the third rechartering of the 802.11 UHR Study Group.**
		2. Moved by Laurent Cariou, Second: Tuncer Baykas
		3. Result: Yes: 103, No: 2, Abstain: 9 (Motion passes)
	13. **Motion 16: UHR SG liaison to WFA**
		1. **Request the IEEE 802.11 Working Group (WG) chair to send the liaison in 11-23/1254r1 to the Wi-Fi Alliance, granting the WG chair editorial license.**
		2. Moved by Laurent Cariou on behalf of the UHR SG, Second: Rakesh Taori
		3. Result: Yes: 95, No: 0, Abstain: 7 (Motion passes)
		4. [UHR SG: Moved: Jon Rosdahl, 2nd: Rolf de Vegt, Result: 143/1/11]
	14. **Motion 17: AMP SG recharter.**
		1. **Request EC approval of the first rechartering of the 802.11 AMP Study Group.**
		2. Moved by Bo Sun, Second: Vytas Kezys
		3. Result: Yes: 84, No: 0, Abstain: 8 (Motion passes)
12. **Any other Business (AoB)**
	1. **Future Venues**
	2. Q: There are some people present who have issues with mobility? Will this be taken into account when future venues are selected?
	3. A: There are different rules in different countries. The accessibility rules here in Germany are different from those in other countries. This room has changed from the original plan, as the elevator to the other room is not working. Therefore, there has been some accommodation in this case. The hotel did work very quickly to address this issue.
	4. Chair: If people do have mobility issues, please let the meeting organizers known and we will try to obtain additional equipment.
	5. VC-1: When you register, there is a box you can tick on the web-site, where you can add any extra items you require for meetings.
	6. **Activision**
	7. VC-1: I would like to thank this company for their generous grant towards the meeting costs.
	8. C: We are very happy to help with IEEE 802.11’s work to improve online gaming.
	9. **Comment resolution resources (**11-23-0981r1, slide #27)
	10. Chair: This information is available. By learning about this, we want to avoid angst with comment resolutions when projects go to RevCom and NesCom.
	11. Q: Sometimes, comments in various groups are not very helpful.
	12. A: One of the refenced documents has examples of poor comments that people can learn from.
	13. **Coffee break**
	14. VC-1: There is coffee available at the back of this meeting.
13. **Wireless Chairs Meeting** (11-23-0981r1 slide #23)
	1. The next meeting is on Sunday September 10th at 16:00 ET. Please contact the IEEE 802.11 WG chair or vice-chairs with a request for more information.
14. **Next Session**
	1. The date of the next IEEE 802.11 WG session is September 10-15th, 2023 in Atlanta and is a mixed mode session.
15. **Adjournment**
	1. Having completed the agenda, the chair announced that the meeting was adjourned at 10:21 CEST.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 75%?** | **Status** |
| --- | --- | --- | --- |
| Abad, Jose  | Maxlinear Inc  | TRUE  | Potential Voter |
| AbidRabbu, Shaima'  | Istanbul Medipol University; Vestel  | TRUE  | Voter |
| Abouelseoud, Mohamed  | Apple Inc.  | TRUE  | Voter |
| Aboulmagd, Osama  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Adachi, Tomoko  | TOSHIBA Corporation  | TRUE  | Voter |
| Adakeja, olubukola  | Teradyne, Inc.  | 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 |
| Al-Baidhani, Amer  | NXP Semiconductors  | FALSE  | Voter |
| Aldana, Carlos  | Facebook  | FALSE  | Voter |
| Ansley, Carol  | IEEE member / Self Employed  | 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 |
| Avital, Ziv  | Intel  | TRUE  | Voter |
| Avrillon, Matthieu  | Self  | TRUE  | Potential Voter |
| Awater, Geert  | Qualcomm Technologies Netherlands B.V.  | TRUE  | Voter |
| Aygul, Mehmet  | Istanbul Medipol University; Vestel  | TRUE  | Voter |
| Azizi, Shahrnaz  | Intel  | TRUE  | Aspirant |
| 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 |
| Bankov, Dmitry  | IITP RAS  | TRUE  | Voter |
| Bansal, Priyanka  | NXP Semiconductors  | TRUE  | Voter |
| Bao, Zhanjing  | TCL  | TRUE  | Voter |
| Baron, stephane  | Canon Research Centre France  | TRUE  | Voter |
| Batra, Anuj  | Apple Inc.  | TRUE  | Voter |
| Baykas, Tuncer  | Istanbul Medipol University;Vestel  | TRUE  | Voter |
| Beg, Chris  | Cognitive Systems Corp.  | TRUE  | Voter |
| Bei, Jianwei  | NXP Semiconductors  | TRUE  | Voter |
| Ben Arie, Yaron  | Toga Networks (A Huawei Company)  | TRUE  | Voter |
| Berens, Friedbert  | FBConsulting Sarl  | TRUE  | Voter |
| Berger, Catherine  | IEEE STAFF  | FALSE  | Non-Voter |
| Berger, Christian  | NXP Semiconductors  | TRUE  | Voter |
| Bhandaru, Nehru  | Broadcom Corporation  | TRUE  | Voter |
| Bian, Tong  | Panasonic  | TRUE  | Aspirant |
| Bims, Harry  | Bims Laboratories, Inc.  | TRUE  | Voter |
| Bober, Lennert  | Fraunhofer Heinrich Hertz Institute  | FALSE  | Voter |
| Boldy, David  | Broadcom Corporation  | TRUE  | Voter |
| Boodannavar, Veerendra  | Apple Inc.  | TRUE  | Potential Voter |
| Borges, Daniel  | Apple Inc.  | TRUE  | Voter |
| Bredewoud, Albert  | Broadcom Corporation  | TRUE  | Voter |
| bujacz, jean-claude  | Bouygues Telecom  | TRUE  | Aspirant |
| Burkhardt, Frank  | Fraunhofer IIS  | TRUE  | Voter |
| Campiglio, Ugo  | Cisco Systems, Inc.  | TRUE  | Aspirant |
| Canchi, Radhakrishna  | Kyocera International Inc  | FALSE  | Voter |
| Canpolat, Necati  | Intel  | TRUE  | Voter |
| Cariou, Laurent  | Intel  | TRUE  | Voter |
| Carney, William  | Sony Corporation  | TRUE  | Voter |
| Cepni, Gurkan  | Apple Inc.  | TRUE  | Voter |
| Cha, Dongju  | LG ELECTRONICS  | TRUE  | Potential Voter |
| Cha, Jaesang  | Seoul National University  | FALSE  | Non-Voter |
| Chang, Chen-Yi  | Mediatek  | TRUE  | Voter |
| Chaplin, Clint  | Self  | FALSE  | ExOfficio |
| Chappell, Matthew  | Cox Communications Inc.  | FALSE  | Voter |
| Chatzimisios, Periklis  | The Alexander Technological Educational Institution of Thessaloniki (TEI)  | FALSE  | Non-Voter |
| Chemrov, Kirill  | IITP RAS  | TRUE  | Voter |
| Chen, Cheng  | Intel  | TRUE  | Voter |
| Chen, Cheng-Ming  | Qualcomm Incorporated  | TRUE  | Voter |
| Chen, Evelyn  | Ericsson AB  | TRUE  | Voter |
| Chen, Xiaogang  | Spreadtrum Communication USA, Inc  | TRUE  | Voter |
| Chen, You-Wei  | Mediatek Inc  | TRUE  | Voter |
| Chen, Zhaomei  | Huawei Technologies Co., Ltd  | FALSE  | Non-Voter |
| Cheng, Ching-Chia  | MediaTek Inc.  | TRUE  | Potential Voter |
| Cheng, Paul  | MediaTek Inc.  | TRUE  | Voter |
| cheng, phoebe  | MediaTek Inc.  | TRUE  | Voter |
| Cheng, Xilin  | NXP Semiconductors  | TRUE  | Voter |
| CHENG, yajun  | Xiaomi Communications Co., Ltd.  | TRUE  | Voter |
| CHERIAN, GEORGE  | Qualcomm Incorporated  | TRUE  | Voter |
| Chiang, James  | MediaTek Inc.  | TRUE  | Voter |
| Chitrakar, Rojan  | Panasonic Asia Pacific Pte Ltd.  | TRUE  | Voter |
| Chiu, WenHsien  | MediaTek Inc.  | TRUE  | Voter |
| Chng, Baw  | BAWMAN LLC  | TRUE  | Voter |
| Cho, Hangyu  | LG ELECTRONICS  | TRUE  | Voter |
| Choi, Jin Seek  | Hanyang Univerisity  | TRUE  | Voter |
| Choi, Jinsoo  | LG ELECTRONICS  | TRUE  | Voter |
| Chou, Tzu-Hsuan  | Qualcomm Incorporated  | 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 |
| Ciochina, Dana  | Sony Corporation  | TRUE  | Voter |
| Coffey, John  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Contreras Albesa, Javier  | Cisco Systems, Inc.  | TRUE  | Potential Voter |
| Cortes, Diana  | Google  | TRUE  | Voter |
| Costa, D.Nelson  | Peraso Technologies Incorporated  | TRUE  | Potential Voter |
| da Silva, Claudio  | Meta Platforms Inc.  | TRUE  | Voter |
| Das, Dibakar  | Intel  | TRUE  | Voter |
| Das, Subir  | Perspecta Labs;Perspecta Labs Inc  | TRUE  | ExOfficio |
| Dash, Debashis  | Apple;Apple Inc.;Quantenna Communications, Inc.  | TRUE  | Voter |
| Davis, Mike  | Nordic Semiconductor ASA  | TRUE  | Potential Voter |
| de Vegt, Rolf  | Qualcomm Incorporated  | TRUE  | Voter |
| DeLaOlivaDelgado, Antonio  | InterDigital, Inc.  | TRUE  | Voter |
| Derham, Thomas  | Broadcom Corporation  | TRUE  | Voter |
| DESMOULIN, Patrice  | Orange  | TRUE  | Voter |
| Di Taranto, Rocco  | Ericsson AB  | TRUE  | Voter |
| Dong, Xiandong  | Xiaomi Communications Co., Ltd.  | TRUE  | Voter |
| Du, Rui  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Du, Zhenguo  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Eitan, Alecsander  | Qualcomm Incorporated  | TRUE  | Voter |
| ElSherif, Ahmed  | Qualcomm Incorporated  | TRUE  | Voter |
| Emmelmann, Marc  | Self Employed / Koden-TI / Fraunhofer FOKUS  | TRUE  | Voter |
| Erceg, Vinko  | Broadcom Corporation  | TRUE  | Voter |
| Erkucuk, Serhat  | Ofinno  | TRUE  | Voter |
| Fang, Juan  | Intel  | TRUE  | Voter |
| Fang, Yonggang  | ZTE TX Inc  | TRUE  | Voter |
| feng, Shuling  | MediaTek Inc.  | TRUE  | Voter |
| Ficara, Domenico  | Cisco Systems, Inc.  | TRUE  | Aspirant |
| Fischer, Matthew  | Broadcom Corporation  | TRUE  | Voter |
| Fletcher, Paul  | Samsung Cambridge Solution Center  | TRUE  | Voter |
| Fujimori, Yuki  | Canon Research Centre France  | TRUE  | Voter |
| Gan, Ming  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | FALSE  | Voter |
| Gangur, Trivikram  | Infineon Technologies  | TRUE  | Voter |
| Ganji, Mehdi  | Charter Communications  | TRUE  | Aspirant |
| Gao, Ning  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Garg, Lalit  | Broadcom Corporation  | TRUE  | Voter |
| Gee, Thomas  | Qorvo  | TRUE  | Voter |
| Ghosh, Chittabrata  | Meta  | TRUE  | Voter |
| Gidvani, Ravi  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| Gilb, James  | General Atomics Aeronautical Systems, Inc.  | TRUE  | ExOfficio |
| Godfrey, Tim  | Electric Power Research Institute, Inc. (EPRI)  | FALSE  | ExOfficio |
| Goktepe, Baris  | Fraunhofer Heinrich Hertz Institute  | TRUE  | Aspirant |
| Gong, Bo  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gorthi, Hemamali  | Infineon Technologies  | TRUE  | Voter |
| GOTO, Fumihide  | DENSO  | TRUE  | Voter |
| Grandhe, Niranjan  | NXP Semiconductors  | TRUE  | Voter |
| Grigat, Michael  | Deutsche Telekom AG  | TRUE  | Voter |
| Gu, Junrong  | Clourney Semiconductor  | TRUE  | Aspirant |
| Gu, Xiangxin  | Spreadtrum Communications (Shanghai) Co., Ltd.;Unisoc (Shanghai) Technologies Co., Ltd.  | TRUE  | Voter |
| GUIGNARD, Romain  | Canon Research Centre France  | TRUE  | Voter |
| Guo, Jing  | NXP Semiconductors  | TRUE  | Voter |
| Guo, Yuchen  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Guo, Zheng  | NXP Semiconductors  | TRUE  | Voter |
| Guo, Ziyang  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Gupta, Binita  | Facebook  | TRUE  | Voter |
| Ha, Taeyoung  | Samsung Electronics Co., Ltd.  | TRUE  | Aspirant |
| 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;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Handte, Thomas  | Sony Corporation  | TRUE  | Voter |
| Hangbin, Zhao  | China Mobile (Hangzhou) Information Technology Co., Ltd  | TRUE  | Voter |
| Hansen, Jeff  | SoundVision Technologies  | FALSE  | Voter |
| Harrison, Edward  | Anritsu Company  | TRUE  | Voter |
| Hart, Brian  | Cisco Systems, Inc.  | TRUE  | Voter |
| Haustein, Thomas  | Fraunhofer Heinrich Hertz Institute  | FALSE  | Non-Voter |
| Hawkes, Philip  | Qualcomm Incorporated  | TRUE  | Voter |
| He, Chuanfeng  | Beijing OPPO telecommunications corp., ltd  | TRUE  | Voter |
| He, Ziming  | Samsung Cambridge Solution Centre  | TRUE  | Voter |
| Hedayat, Ahmadreza  | Charter Communications  | TRUE  | Voter |
| Helmy, Ahmed  | Apple Inc.  | TRUE  | Potential Voter |
| Henry, Jerome  | Cisco Systems, Inc.  | TRUE  | Voter |
| Hernandez, Marco  | National Institute of Information and Communications Technology (NICT)  | TRUE  | Voter |
| hervieu, Lili  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| Hiertz, Guido  | Ericsson GmbH  | TRUE  | Voter |
| Hirata, Ryuichi  | Sony 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, Xiaokun  | Ruijie Networks Co., Ltd.  | TRUE  | Voter |
| HUANG, CHIHAN  | MediaTek Inc.  | TRUE  | Voter |
| Huang, Guogang  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| huang, kaikai  | Nokia  | TRUE  | Potential Voter |
| Huang, Lei  | Panasonic Asia Pacific Pte Ltd.  | TRUE  | Voter |
| Huang, Po-Kai  | Intel  | TRUE  | Voter |
| Huang, Qisheng  | ZTE Corporation  | 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 |
| Ji, Chenhe  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| jiang, feng  | Apple Inc.  | TRUE  | Voter |
| Jiang, Jinjing  | Apple Inc.  | FALSE  | Aspirant |
| Jiang, Wu  | Shenzhen iTest Technology Co.,Ltd.  | TRUE  | Aspirant |
| Joh, Hanjin  | KT Corp.  | TRUE  | Voter |
| John, Toby  | Verizon  | TRUE  | Voter |
| Jones, Allan  | Activision  | TRUE  | Voter |
| Jones, Vincent Knowles IV  | Qualcomm Incorporated  | TRUE  | Voter |
| Juarez, Jorge  | Fraunhofer IIS  | TRUE  | Voter |
| Jung, Insik  | LG ELECTRONICS  | TRUE  | Voter |
| Jungnickel, Volker  | Fraunhofer Heinrich Hertz Institute  | TRUE  | Voter |
| Kabbinale, Aniruddh  | SAMSUNG  | FALSE  | Non-Voter |
| Kakani, Naveen  | Qualcomm Incorporated  | TRUE  | Voter |
| kamath, Manoj  | Broadcom Corporation  | 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 |
| Kang, Sugbong  | Apple Inc.  | TRUE  | Voter |
| KANG, TEAG JIN  | Broadcom Corporation  | TRUE  | Voter |
| Karmuchi, Shailender  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| Kasargod, Sudhir  | Infineon Technologies  | TRUE  | Voter |
| Kedem, Oren  | MaxLinear  | TRUE  | Voter |
| Kennedy, Richard  | Huawei;IEEE member / Self Employed  | TRUE  | Voter |
| Kerry, Stuart  | OK-Brit;OK-Brit; Ruckus; CommScope;OK-Brit; Self  | TRUE  | Voter |
| Keshmiri, Francis  | Huawei Technologies France  | TRUE  | Aspirant |
| Kezys, Vytas  | BlackBerry  | TRUE  | Voter |
| Khan, Naseem  | Leidos Engineering. LLC  | TRUE  | Voter |
| Khorov, EVGENY  | IITP RAS  | TRUE  | Voter |
| kim, ajung  | sejong  | FALSE  | Non-Voter |
| Kim, Geon Hwan  | LG ELECTRONICS  | TRUE  | Voter |
| Kim, Hyungjin  | Broadcom Corporation  | 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, Yongho  | Korea National University of Transportation  | TRUE  | Voter |
| Kim, Youhan  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Kishida, Akira  | Nippon Telegraph and Telephone Corporation (NTT)  | TRUE  | Voter |
| Kitazawa, Shoichi  | Muroran IT  | TRUE  | Voter |
| Kivinen, Tero  | Self Employed  | FALSE  | Non-Voter |
| Klein, Arik  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Klimakov, Andrey  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| KNECKT, JARKKO  | Apple Inc.  | TRUE  | Voter |
| Koepp, Jorg  | Rohde & Schwarz  | FALSE  | Non-Voter |
| Korn, Clemens  | Fraunhofer IIS; Technische Universitaet Ilmenau  | TRUE  | Aspirant |
| Koundourakis, Michail  | Samsung Cambridge Solution Center  | TRUE  | Voter |
| Krebs, Alexander  | Apple Inc;Apple Inc.  | FALSE  | Voter |
| Krieger, Ann  | US Department of Defense  | FALSE  | Non-Voter |
| Ku, Chung-Ta  | Mediatek Inc  | TRUE  | Voter |
| Kumar, Manish  | Marvell Semiconductor, Inc.  | TRUE  | Voter |
| Kuo, Chih-Chun  | MediaTek Inc.  | TRUE  | Voter |
| Kureev, Aleksey  | IITP RAS  | TRUE  | Voter |
| Lalam, Massinissa  | SAGEMCOM SAS  | TRUE  | Voter |
| Lanante, Leonardo  | Kyushu Institute of Technology  | TRUE  | Voter |
| Lansford, James  | Qualcomm Incorporated;University of Colorado at Boulder  | TRUE  | Voter |
| Lee, Hong Won  | LG ELECTRONICS  | FALSE  | Aspirant |
| Lee, Hyeong Ho  | Netvision Telecom Inc.  | TRUE  | Voter |
| Lee, Il-Gu  | Sungshin University  | TRUE  | Potential Voter |
| LEE, JOONSOO  | Newracom Inc.  | TRUE  | Voter |
| Lee, Wookbong  | SAMSUNG  | TRUE  | Voter |
| Levitsky, Ilya  | IITP RAS  | TRUE  | Voter |
| Levy, Joseph  | InterDigital, Inc.  | TRUE  | Voter |
| Li, Bo  | Northwestern Polytechnical University  | TRUE  | Voter |
| Li, Guoqing  | Apple Inc.  | TRUE  | Potential Voter |
| Li, Jialing  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Li, Qinghua  | Intel  | TRUE  | Voter |
| Li, Weiyi  | Spreadtrum Communication USA, Inc  | TRUE  | Voter |
| Li, Xin  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Li, Yan  | ZTE Corporation  | TRUE  | Voter |
| Li, Yanchun  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Li, Yapu  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Li, Ying  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Li, Yunbo  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lim, Dong Guk  | LG ELECTRONICS  | TRUE  | Voter |
| Lim, Sang-Kyu  | Electronics and Telecommunications Research Institute (ETRI)  | FALSE  | Non-Voter |
| Lin, Hsin-De  | MediaTek Inc.  | TRUE  | Voter |
| Lin, Wei  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Lin, Zinan  | InterDigital, Inc.  | TRUE  | Voter |
| LIU, CHENCHEN  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | FALSE  | Voter |
| liu, dekun  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Liu, Der-Zheng  | Realtek Semiconductor Corp.  | TRUE  | Voter |
| Liu, Jianhan  | MediaTek Inc.  | TRUE  | Voter |
| Liu, Peng  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Liu, Yong  | Apple Inc.  | TRUE  | Voter |
| Loginov, Vyacheslav  | IITP RAS  | TRUE  | Voter |
| Lopes, Joao  | Qualcomm Incorporated  | FALSE  | Non-Voter |
| Lopez, Alvaro  | Fraunhofer Heinrich Hertz Institute  | TRUE  | Aspirant |
| Lorgeoux, Mikael  | Canon Research Centre France  | TRUE  | Voter |
| Lou, Hanqing  | InterDigital, Inc.  | TRUE  | Voter |
| Lou, Hui-Ling  | Marvell Semiconductor, Inc.;NXP Semiconductors  | TRUE  | Voter |
| Lovison, Federico  | Cisco Systems, Inc.  | 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 |
| Luo, Yuanqiu  | Futurewei Technologies  | TRUE  | Potential Voter |
| Lv, Lily  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Ma, Li  | MediaTek Inc.  | TRUE  | Voter |
| Ma, Yongsen  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| Ma, Yunsi  | HiSilicon (Shanghai) Technologies Co., LTD.  | TRUE  | Voter |
| Madni, Haji Muhammad  | Vestel  | TRUE  | Potential Voter |
| Males, Davor  | Bouygues Telecom  | TRUE  | Potential Voter |
| Malinen, Jouni  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Mano, Hiroshi  | Koden Techno Info K.K.  | TRUE  | Voter |
| Mantha, Abhishek  | Broadcom Corporation  | TRUE  | Voter |
| MAO, ZHI  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Marwaha, Siddarth  | TU Braunschweig  | FALSE  | Non-Voter |
| Max, Sebastian  | Ericsson AB  | TRUE  | Voter |
| Mccann, Stephen  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Medda, Daniele  | International Hellenic University  | FALSE  | Voter |
| Mehrnoush, Morteza  | Apple Inc  | TRUE  | Non-Voter |
| MELZER, Ezer  | Toga Networks, a Huawei company  | TRUE  | Voter |
| Minayi Jalil, Amir  | Aerial Technologies  | FALSE  | Non-Voter |
| Minotani, Jun  | Panasonic Corporation  | TRUE  | Voter |
| Miwa, Shinya  | Canon Research Centre France  | TRUE  | Voter |
| Monajemi, Pooya  | Cisco Systems, Inc.  | TRUE  | Voter |
| Montemurro, Michael  | BlackBerry;Self  | 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 |
| Mueller, Robert  | Ilmenau University of Technology - TU Ilmenau  | TRUE  | Voter |
| Mukkapati, Lakshmi Narayana  | Wi-Fi Alliance  | FALSE  | Voter |
| Mutgan, Okan  | Nokia  | TRUE  | Voter |
| Nagai, Yukimasa  | Mitsubishi Electric Corporation  | TRUE  | Potential Voter |
| Naik, Gaurang  | Qualcomm Technologies, Inc  | TRUE  | Voter |
| Nakano, Hiroki  | CAHI Corporation;Kyoto University  | TRUE  | Voter |
| Nam, Junyoung  | Qualcomm Incorporated  | TRUE  | Voter |
| Nam, Sol-eep  | Intellectual Discovery  | TRUE  | Potential Voter |
| Namboodiri, Vamadevan  | SAMSUNG ELECTRONICS  | FALSE  | Voter |
| Namvar, Nima  | Charter Communications  | TRUE  | Voter |
| Narengerile, Narengerile  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Nayak, Peshal  | Samsung Research America  | TRUE  | Voter |
| Neishaboori, Azin  | General Motors Company  | TRUE  | Aspirant |
| Nezou, Patrice  | Canon Research Centre France  | 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, Si-Chan  | Newracom Inc.  | TRUE  | Voter |
| Nurani Krishnan, Neelakantan  | Qualcomm Incorporated  | TRUE  | Aspirant |
| Ogawa, Hiroyo  | Association of Radio Industries and Businesses (ARIB)  | FALSE  | Non-Voter |
| Ohmoto, Ryutaro  | Nihon Dengyo Kosaku Co. Ltd.  | TRUE  | Voter |
| Omar, Hassan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Orlando, Christian  | IEEE STAFF  | FALSE  | Non-Voter |
| Orr, Stephen  | Cisco Systems, Inc.  | TRUE  | Voter |
| Ouchi, Masatomo  | Canon  | TRUE  | Voter |
| Ozbakis, Basak  | VESTEL Electronics Corp.  | TRUE  | Voter |
| Pakrooh, Pooria  | Qualcomm Incorporated  | TRUE  | Potential Voter |
| Palayur, Saju  | Maxlinear Inc.  | TRUE  | Voter |
| Pandey, Sheetal  | Synaptics Inc.  | TRUE  | Voter |
| Pare, Thomas  | MediaTek Inc.  | TRUE  | Voter |
| Parekh, Jatin  | Arista Networks, Inc.  | TRUE  | Voter |
| Park, Eunsung  | LG ELECTRONICS  | TRUE  | Voter |
| Park, Minyoung  | Intel  | TRUE  | 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  | Jones-Petrick and Associates, LLC.  | TRUE  | Voter |
| Pettersson, Charlie  | Ericsson AB  | TRUE  | Voter |
| Porat, Ron  | Broadcom Corporation  | TRUE  | Voter |
| Pottigari, Sachin  | NXP Semiconductors  | TRUE  | Voter |
| Powell, Clinton  | Meta Platforms;PWC, LLC  | FALSE  | ExOfficio |
| Prabhakaran, Dinakar  | Broadcom Corporation  | TRUE  | Voter |
| Ptasinski, Henry  | Element78 Communications LLC  | TRUE  | Voter |
| Qi, Emily  | Intel  | TRUE  | Voter |
| Qi, Yinan  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Voter |
| Qi, Yue  | Samsung Research America  | TRUE  | Voter |
| Quan, Yingqiao  | Spreadtrum  | TRUE  | Voter |
| Rafique, Saira  | Istanbul Medipol University, Vestel  | TRUE  | Voter |
| Rai, Kapil  | Qualcomm Incorporated  | TRUE  | Voter |
| Raissinia, Alireza  | Qualcomm Incorporated  | TRUE  | Voter |
| Rajashekar, Rakshith  | Broadcom Corporation  | TRUE  | Voter |
| Ratnam, Vishnu  | Samsung Research America  | TRUE  | Voter |
| Redlich, Oded  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Redmore, Josh  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | 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 |
| Rodine, Craig  | Sandia National Laboratories  | TRUE  | Voter |
| Rodriguez, Stephen  | Cisco Systems, Inc.  | TRUE  | Voter |
| Rosdahl, Jon  | Qualcomm Technologies, Inc.  | TRUE  | Voter |
| Roy, Sayak  | NXP Semiconductors  | TRUE  | Voter |
| Ryu, Kiseon  | LG ELECTRONICS  | 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  | Qualcomm Incorporated  | TRUE  | Voter |
| Santra, Avik  | Infineon Technologies  | TRUE  | Voter |
| Sasaki, Shigenobu  | Niigata University  | FALSE  | Non-Voter |
| Sato, Naotaka  | Sony Group Corporation  | TRUE  | Voter |
| Sato, Takuhiro  | SHARP CORPORATION  | TRUE  | Voter |
| Schelstraete, Sigurd  | MaxLinear  | TRUE  | Voter |
| Schneider, Ben  | Siemens AG; Siemens Corporation  | TRUE  | Aspirant |
| Schweizer, Benedikt  | Apple Inc.  | TRUE  | Voter |
| Segev, Jonathan  | Intel  | TRUE  | Voter |
| Seok, Joseph  | Self  | TRUE  | Aspirant |
| Seok, Yongho  | MediaTek Inc.  | TRUE  | Voter |
| Serafimovski, Nikola  | pureLiFi  | TRUE  | Voter |
| Serizawa, Kazunobu  | Advanced Telecommunications Research Institute International (ATR)  | TRUE  | Voter |
| Sethi, Ankit  | NXP Semiconductors  | TRUE  | Voter |
| Sevin, Julien  | Canon Research Centre France  | TRUE  | Voter |
| Shafin, Rubayet  | Samsung Research America  | TRUE  | Voter |
| Sharma Banjade, Vesh Raj  | Intel; Intel Corporation  | TRUE  | Aspirant |
| Shaw, Amit  | Infineon Technologies  | TRUE  | Voter |
| Shen, Andy  | Futurewei Technologies  | TRUE  | Voter |
| Shen, Xiaoman  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sherlock, Ian  | Texas Instruments Inc.  | TRUE  | Voter |
| Shilo, Shimi  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Shirakawa, Atsushi  | SHARP CORPORATION  | TRUE  | Voter |
| siaud, isabelle  | Orange  | TRUE  | Voter |
| Sinn, Ulrich  | Siemens AG  | TRUE  | Potential Voter |
| Smith, Graham  | SR Technologies  | TRUE  | Voter |
| Smith, Luther  | ;Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| So, Youngwan  | Samsung Electronics Co., Ltd.  | TRUE  | Aspirant |
| Son, Ju-Hyung  | WILUS Inc.  | TRUE  | Voter |
| Song, Hao  | Intel  | TRUE  | Voter |
| Sood, Ayush  | Infineon Technologies  | TRUE  | Voter |
| Sosack, Robert  | Molex Incorporated  | TRUE  | Voter |
| Srinivasa, Sudhir  | Marvell Semiconductor, Inc.;NXP Semiconductors  | TRUE  | Voter |
| Stacey, Robert  | Intel  | TRUE  | Voter |
| Stanley, Dorothy  | Hewlett Packard Enterprise  | TRUE  | Voter |
| Strobel, Rainer  | MaxLinear  | TRUE  | Voter |
| Suh, JUNG HOON  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Sun, Bo  | Sanechips  | TRUE  | Voter |
| Sun, Jiaqi  | China Mobile (Hangzhou) Information Technology Co., Ltd.  | TRUE  | Voter |
| Sun, Li-Hsiang  | Sony Corporation  | TRUE  | Voter |
| Sun, Yanbin  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Sun, Yanjun  | Qualcomm Incorporated  | TRUE  | Voter |
| SURACI, FRANK  | U.S. Department of Homeland Security  | TRUE  | Voter |
| SUZUKI, Shuntaro  | Yamaha Corporation  | TRUE  | Potential Voter |
| Tadahal, Shivkumar  | Broadcom Corporation  | FALSE  | Voter |
| Talha, Mohd.  | NXP Semiconductors  | TRUE  | Voter |
| Tanaka, Ken  | Sony Corporation  | TRUE  | Aspirant |
| Tanaka, Yusuke  | Sony Corporation  | TRUE  | Voter |
| Tang, Zhuqing  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Tao, Roger  | D-Link Corporation  | TRUE  | Aspirant |
| Taori, Rakesh  | Infineon Technologies  | TRUE  | Voter |
| Thakore, Darshak  | Cable Television Laboratories Inc. (CableLabs)  | TRUE  | Voter |
| Thakur, Sidharth  | Apple Inc.  | TRUE  | Voter |
| Theodoras, James  | HGGenuine  | FALSE  | Non-Voter |
| Thota, Sri Ramya  | Infineon Technologies  | TRUE  | Voter |
| Tian, Bin  | Qualcomm Incorporated  | TRUE  | Voter |
| Tomeba, Hiromichi  | SHARP CORPORATION  | TRUE  | Voter |
| Tsai, Tsung-Han  | MediaTek Inc.  | TRUE  | Voter |
| Tsodik, Genadiy  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Tsujimaru, Yuki  | Canon Inc.  | TRUE  | Voter |
| Urabe, Yoshio  | Panasonic Holdings Corporation  | TRUE  | Voter |
| Val, Inaki  | MaxLinear, Inc.  | TRUE  | Voter |
| Van Nee, Richard  | Qualcomm Incorporated  | TRUE  | Voter |
| Van Zelst, Allert  | Qualcomm Technologies Netherlands B.V.  | TRUE  | Voter |
| Varshney, Prabodh  | Nokia  | TRUE  | Voter |
| Venkatesan, Ganesh  | Intel  | FALSE  | Aspirant |
| Verenzuela, Daniel  | Sony Corporation  | TRUE  | Voter |
| Verma, Sindhu  | Broadcom Corporation  | TRUE  | Voter |
| Vermani, Sameer  | Qualcomm Incorporated  | TRUE  | Voter |
| VIGER, Pascal  | Canon Research Centre France  | TRUE  | Voter |
| Wang, Bo  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Wang, Hao  | Tencent  | TRUE  | Voter |
| Wang, Hejun  | Haier Group Corporation  | TRUE  | Voter |
| Wang, Huizhao  | NXP Semiconductors  | TRUE  | Voter |
| Wang, Lei  | Huawei R&D USA  | TRUE  | Voter |
| Wang, Pu  | Mitsubishi Electric Research Labs (MERL)  | FALSE  | Voter |
| Wang, Qi  | Southeast University, China  | TRUE  | Voter |
| Wang, Steven Qi  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Wang, Xiaofei  | InterDigital, Inc.  | 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 |
| Wei, Hung-Yu  | National Taiwan University  | TRUE  | Voter |
| Wendt, Matthias  | Signify  | TRUE  | Voter |
| Wentink, Menzo  | Qualcomm Incorporated  | TRUE  | Voter |
| Wilhelmsson, Leif  | Ericsson AB  | TRUE  | Voter |
| Wu, Chao-Yi  | SAMSUNG ELECTRONICS  | TRUE  | Voter |
| wu, guangsheng  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Wu, Kanke  | Qualcomm Incorporated  | TRUE  | Voter |
| Wu, Tianyu  | Apple Inc.  | TRUE  | Voter |
| Wu, Wayne  | MediaTek Inc.  | TRUE  | Voter |
| Wu, Xuming  | Huawei Technologies Co., Ltd; Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| Wullert, John  | Perspecta Labs  | TRUE  | Voter |
| Xia, Qing  | Sony Corporation  | TRUE  | Voter |
| Xin, Liangxiao  | Sony Corporation  | TRUE  | Voter |
| Xin, Yan  | Huawei Technologies Co., Ltd;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  | Potential Voter |
| YAGHOOBI, HASSAN  | Intel  | TRUE  | Voter |
| Yamada, Ryota  | SHARP CORPORATION  | TRUE  | Voter |
| Yan, Aiguo  | Zeku  | TRUE  | Voter |
| Yan, Min  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Yan, Peng  | Wi-Fi Alliance  | TRUE  | Voter |
| Yan, Zhongjiang  | Northwestern Polytechnical University  | TRUE  | Voter |
| Yang, Jay  | ZTE  | TRUE  | Voter |
| Yang, Jimmy  | Moxa Inc.  | TRUE  | Aspirant |
| Yang, Lin  | University of Electronic Science and Technology of China  | TRUE  | Voter |
| Yang, Mao  | Northwestern Polytechnical University  | TRUE  | Voter |
| YANG, Ning  | Guangdong OPPO Mobile Telecommunications Corp.,Ltd  | TRUE  | Aspirant |
| YANG, RUI  | InterDigital, Inc.  | TRUE  | Voter |
| Yang, Steve TS  | MediaTek Inc.  | TRUE  | Voter |
| Yang, Xun  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | 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 |
| Yong, Su Khiong  | Apple Inc.  | TRUE  | Voter |
| Yoon, Yelin  | LG ELECTRONICS  | TRUE  | Voter |
| Yu, Heejung  | Korea University;Yeungnam University  | TRUE  | Potential Voter |
| Yu, Jian  | Huawei Technologies Co., Ltd;Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zaev, Danila  | Apple Inc.  | TRUE  | Aspirant |
| Zeng, Ruochen  | NXP Semiconductors  | TRUE  | Voter |
| Zeng, Yan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zhang, Hongyuan  | Marvell Semiconductor, Inc.;NXP Semiconductors  | TRUE  | Voter |
| zhang, jianlong  | ZTE Corporation  | TRUE  | Potential Voter |
| Zhang, Jiayi  | Ofinno  | TRUE  | Voter |
| Zhang, Rong  | NXP Semiconductors  | TRUE  | Voter |
| Zhang, Yan  | Apple Inc  | TRUE  | Voter |
| Zhang, Yiyan  | Huawei Technologies Co., Ltd  | TRUE  | Voter |
| Zhao, Yue  | Huawei Technologies Co., Ltd  | TRUE  | Potential Voter |
| Zheng, Haomian  | Huawei Technologies Co., Ltd  | TRUE  | Aspirant |
| ZHENG, ZE  | Shenzhen iTest Technology Co.,Ltd.  | TRUE  | Aspirant |
| Zhou, Chengzhi  | Apple Inc.  | FALSE  | Non-Voter |
| Zhou, Lei  | H3C Technologies Co., Limited  | TRUE  | Voter |
| Zhou, Pei  | TCL  | TRUE  | Voter |
| zhu, lihua  | Ruijie Networks Co., 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 |
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**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 | 23-1309r0 |
| TGme | TG | 23-1208r1 |
| TGbe | TG | 23-1233r2 |
| TGbf | TG | 23-1284r0 |
| TGbh | TG | 23-1308r0 |
| TGbi | TG | 23-1307r0 |
| TGbk | TG | 23-1324r0 |
| COEX | SC | 23-1282r0 |
| WNG | SC | 23-1257r0 |
| JTC 802 | SC | 23-1290r0 |
| ARC | SC | 23-1240r0 |
| PAR | SC | 23-1213 |
| AIML | TIG | 23-1323r0 |
| AMP | TIG | 23-1312r0 |
| UHR  | SG | 23-1181r1 |
| ITU | AHC | 23-0984 |

**Annex D : Revisions and Standards Pipeline**

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**IEEE 802.11 Standards Pipeline**

End.