IEEE P802.11  
Wireless LANs

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| Minutes of the IEEE P802.11 Full Working Group | | | | |
| Date: 2022-04-14 | | | | |
| Author(s): | | | | |
| Name | Company | Address | Phone | email |
| Stephen McCann | Huawei Technologies Co., Ltd | Southampton, UK |  | [stephen.mccann@ieee.org](mailto:stephen.mccann@ieee.org) |

Abstract

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

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

**IEEE 802.11 Interim Session #192**

**March 7th – 15th, 2022**

**IEEE 802.11 Opening Plenary, Monday March 7th 2022**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 09:00 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 512 Voters and 11 Ex Officio voters of IEEE 802.11\*

There were 331 people present in the meeting.

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

1. **Notices** (11-22-0216r1 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.
   4. Please note that this session requires a registration fee to be paid.
   5. Chair: Please contact me if you require the credentials for the “Members Area”.
2. **Approve/modify working group agenda** (11-22-0215r3)
   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 11-22-0215r3 for the Monday opening plenary**
      1. Moved: Marc Emmelmann, 2nd: Mark Hamilton
      2. No objection to approving by unanimous consent
3. **January 2022 WG Minutes**
   1. **Move to approve the January 2022 WG minutes document 11-22-0005r1**
   2. Moved: Stephen McCann, 2nd: Stuart Kerry
   3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **New Attendees** (11-22-0264r0 slide #4)
   1. Straw Poll:
   2. **Are you a new attendee to IEEE 802.11?**
      1. Yes: 7
      2. No: 129
      3. No answer: 118
   3. There is a new members meeting on Tuesday March 8th at 11:15 ET. This is a tutorial for those new members to learn about IEEE 802.11.
5. **Call for essential Patents** (11-22-0208r0)
   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** (11-22-0208r0)
   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).
7. **Announcements** (11-22-0216r1)
   1. **Liaisons** (slide #4)
      1. Chair: There is 1 incoming liaison from the WBA (Wireless Broadband Alliance) (11-22-0098r0) regarding Wi-Fi 6/6E for Industrial IoT.
   2. **EC and standard board decisions** (slides #5 and #6)
      1. Chair: The EC approved the items on the slides.
8. **Logistics and Key events/activities**
   1. **Working group session documents** (11-22-0216r1 slide #7)
   2. **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.
      2. Chair: This IEEE 802.11 session does count towards attendance credit. You will require 9 slots to obtain attendance credit over the next 7 working days.
   3. **M3.3 Other WG meeting plans** (11-22-0267r0 slides #5 to #8)
      1. This slide shows information about other WG meetings, future meetings and logistics during this plenary.
      2. 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.
      3. Please remember to record your attendance for each slot during this plenary, using the IMAT tool: <https://imat.ieee.org/802.11>
   4. **M3.3 Audio Visual Etiquette** (slide #7)
      1. VC1: Please remember this advice when you are presenting during online calls.
   5. **M3.5 Session Registration** (slide #9)
      1. VC1: Please note that paid registration is required for this session. At the moment there are 894 registered people for this March plenary (476 for IEEE 802.11).
      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. No questions
   6. **M3.6 Recording attendance** (slide #10)
      1. VC1: Please note the rules about recording attendance at each IEEE 802.11 meeting during this plenary.
      2. No questions
9. **Status of all sub-groups** (11-22-0216r1)
   1. **Sub-groups summary** (slide #12)
      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 #15)
      1. Chair: I would like to acknowledge all the assistance from the volunteers mentioned on this slide.
   3. **Summary of Ballots** (slide #18)
      1. There have been no new letter ballots since the January 2021 session.
10. **Timelines**
    1. There have been some recent updates to the timeline chart, regarding the recently approved Corrigendum-1 PAR.
    2. <https://www.ieee802.org/11/Reports/802.11_Timelines.htm>
    3. No questions
11. **Group Summaries** (11-22-0209r1)
    1. Special notes were mentioned for the following groups:
    2. **Editors’ meeting and ANA** (slides #3 & #4)
       1. There is an editors’ meeting later today at 16:00 ET, as per the online schedule. Other topics include the ANA status (11-11-0270r60).
       2. No questions
    3. **ARC SC** (slide #5)
       1. There has been 1 teleconference since the January 2022 meeting, discussing various architecture topics.
       2. There are two 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. This group will meet two times this session, to review 7 PARs that are under consideration for approval next week by the EC.
       2. The title of the 802.15.12 withdrawal PAR is incorrect on the slide.
       3. Please note that the final PAR SC meeting in this session is on 17th March 09:00 ET prior to the IEEE 802 closing plenary.
       4. No questions
    6. **WNG** (slide #10)
       1. There are 4 presentations planned for this session at March 8th 11:15 ET:
          1. Overview of Wi-Fi 6/6E for Industrial IoT
          2. Making the Case for Open, Softwarized, Data-Driven 802.11 Networks
          3. Considerations of Next Generation Beyond 11be
          4. Look ahead to next generation – part 2
       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.
       2. The group is planning to hold an ad-hoc meeting in New York, NY at the end of April.
       3. No questions
    9. **TGaz** (slide #16)
       1. The group is progressing work to resolve comments received in the initial SA ballot.
       2. No questions
    10. **TGbb** (slide #19)
        1. The group hopes to resolve comments from the recently completed D1.0 letter ballot.
        2. No questions.
    11. **TGbc** (slide #20)
        1. The work this session is to continue working on comments from the re-circulation D2.0 letter ballot (LB 257).
        2. No questions
    12. **TGbd** (slide #22)
        1. The group completed a D3.0 re-circulation letter ballot (LB 259) and intends to work on comment resolutions during this session.
        2. No questions.
    13. **TGbe** (slide #26)
        1. Please note that the meeting schedule still needs to be updated for the new TGbe evening (ET) calls.
        2. There have been 13 teleconferences since the January 2022 session.
        3. There are 6 meetings this session and the aim is to continue with comment resolution.
        4. Q: It looks as though the group has completed more than 15% of comments.
        5. A: That was just between January 2022 and now. I think the overall figure is closer to 75%.
        6. Q: The Tuesday TGbe meeting is still on the teleconference schedule. Is this correct?
        7. A: No, the teleconference schedule still needs to be updated.
    14. **TGbf** (slide #29)
        1. There have been 11 teleconference calls since the January 2022 meeting on various topics. The SFD is still in development, together with the creation of D0.1.
        2. C: I think the vertical axis on slide #29 is the number of proposals.
    15. **TGbh** (slide #32)
        1. There are 4 meetings during this session. The group will address requirements definitions and possibly create D1.0.
        2. A response to the WBA will be worked on this session, together with some other technical development work.
        3. Q: Do you have a drafting process in place to create D1.0?
        4. A: Not yet. The proposals are coming in as text within submissions.
    16. **TGbi** (slide #33)
        1. There are 3 meetings during this session. The group will address requirements definitions.
        2. No questions.
    17. **ITU ad-hoc** (slide #34)
        1. There was 1 teleconference meeting on February 24th and there is 1 meeting planned for this session.
        2. No questions.
12. **IEEE 802.18 Liaison** (11-22-0391r0)
    1. This document shows the details of the IEEE 802.18 meetings this session.
    2. There will be 2 meetings this session and there are currently 40 voters within the working group.
    3. The topics for discussion include:
       1. ETSI BRAN
       2. CEPT
       3. APAC
       4. UK OfCom
       5. Canada
       6. ITU-R
          1. The ITU-R booklet for WRC-23 can be downloaded at <https://www.itu.int/hub/publication/r-act-arr-1-2022/>
       7. FCC
    4. The submission “Standards Table of Frequency Ranges” continues to be updated in conjunction with IEEE 802.19. The current version is: 18-22-0009r0.
    5. Once the March plenary finishes, there will be a non-mandatory comment collection for all IEEE 802 wireless members regarding this frequency table.
    6. No questions.
13. **IEEE 802.19 Liaison** (11-22-0440r1)
    1. IEEE 802.19 has 50 Voters and there is 1 meeting this session at 16:00 ET today.
    2. No questions.
14. **IEEE 802 Technical Plenary Liaison**
    1. There has been 1 meeting since January 2022, but this was just a status update.
    2. Documents from NENDICA were mentioned at that meeting.
    3. There are 2 PARs that will be reviewed and potentially approved this week to update the IEEE 802 standard.
    4. There could be an additional Technical Plenary meeting, but no date has been confirmed at the moment.
    5. No questions.
15. **General Questions**
    1. Q: How can I influence the timing of teleconferences?
    2. Chair: You need to attend the sub-group meeting to discuss this issue.
16. **Corrigendum-1**
    1. The draft corrigendum-1 is now available within the member’s area.
    2. There is a problem with an ANA assigned value within the published IEEE 802.11ay2021 standard.
    3. The IEEE 802.11-2020/Cor1 project amends IEEE 802.11-2020 and corrects the problem.
    4. There will be a working group letter ballot starting next Tuesday.
    5. No questions.
17. **WG Officer Elections March 2022** (11-22-0216r1 slide #20)
    1. The WG officers will be re-elected during the March 2022 plenary.
    2. The current officers have stated that they will seek re-election.
    3. The elections will take place on Tuesday March 15th.
    4. Nominations are now open.
       1. Apart from the current IEEE 802.11 officers (Robert, Jon, Dorothy), there were no new nominations.
       2. Nominations are now closed.
    5. Statements:
       1. Robert Stacey (11-22-0438r0)
       2. No questions
       3. Jon Rosdahl (11-22-0432r0)
       4. No questions
       5. Dorothy Stanley (11-22-0444r0)
       6. No questions.
18. **AoB**
    1. None
19. **Recess**
    1. Meeting recessed at 10:57 ET.

**Tuesday, March 15th 2022**

**IEEE 802.11 Closing Plenary**

Call to order at 09:01 Eastern Time (ET) by Dorothy Stanley (HPE).

292 people present in the meeting.

1. **Approve/modify working group agenda** (11-22-0215r4)
   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 11-22-0215r4**
      1. Moved: Marc Emmelmann, 2nd: Jonathan Segev
      2. No objection to approving by unanimous consent.
2. **Announcements** (11-22-0217r0)
   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. **Next session and CAC meetings** (slide #9)
      1. The next session of the IEEE 802.11 working group is from May 8-13th 2022. It will be a mixed mode meeting in Warsaw Poland.
      2. Please be aware of future chair’s committee meetings (CAC), the first one of which will be on April 4th at 09:00 ET. Please note the deadline for the sub-group agendas.
      3. Chair: Due to the current conflict in Ukraine, there may be issues about holding the next IEEE 802.11 session in Warsaw. This will be discussed at the next wireless chairs’ meeting on April 6th.
   5. **Sub-group minutes**
      1. Please note that sub-group minutes should be completed within 30 days from the close of this plenary.
      2. No questions.
   6. **Letters of Assurance (LoA)** (slide #10)
      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 #11 - #12)
      1. The 802.11ax LoA issues within ISO, are still ongoing.
      2. IEEE 802.11az D4.0 and IEEE 802.11bc D2.0 have been recently added to the IEEE store.
      3. IEEE 802.11ba-2021 will be submitted after the 11ax related items are resolved.
   8. **Press Releases** (slide #13)
      1. There have been no recent press releases or blog statements.
   9. **IEEE 802 Public Visibility Standing Committee** (slides #14 - #16)
      1. This IEEE 802 group is designed to increase the external visibility of IEEE 802.
      2. There is a planned Tech Talk about IEEE 802 coexistence in June 2022.
      3. There is a link on the slides to the recorded Tech Talks.
      4. Q: There is a time for a CAC May meeting at 18:00. Is this Central European Time (CET) or Central European Summer Time (CEST)?
      5. Chair: It is CEST.
3. **Treasury Report** (ec-22-0031-00)
   1. VC1: This shows the treasurers’ report and is correct as of March 1st 2022.
   2. There are 7 potential deadbeats from the January 2022 session and 2 from the November session.
   3. The session fees have been increased to cover the additional expense of the mixed-mode tools.
   4. Q: For mixed mode is there a penalty for not staying in the hotel?
   5. A: No, as this cannot be applied to people who are not attending the meeting in person.
4. **July 2022 Venue Straw Poll** (11-22-0264r2)
   1. Q: For Q3, I assume this is based on the situation in Ukraine having been deemed safe and not an impediment to a meeting in Warsaw?
   2. A: We hope peace breaks out.
   3. T3.1.2 Straw Poll:
      1. **1. If the 2022 July 802 Wireless Interim Session is held in Montreal, Canada as an in-person only session, will you attend?**
      2. Yes: 98
      3. No: 90
      4. No response: 69
      5. **2. If the 2022 July 802 Wireless Interim Session is held in Montreal, Canada as a mixed-mode session, will you attend?**
      6. Attend In-person: 74
      7. Attend Virtually (remotely): 118
      8. Will not attend plenary: 7
      9. No response: 62
      10. **3. The 2022 May 802 Wireless Interim Session is scheduled to be held in Warsaw Poland as a mixed-mode session, will you attend?**
      11. Attend In-person: 45
      12. Attend Virtually (remotely): 168
      13. Will not attend plenary: 14
      14. No response: 45
5. **Future Venues Manager Report** (11-22-0001r6)
   1. VC1: These slides shows the current status of future venues.
   2. Within the notes view, there is an explanation of the colors used in the slides.
   3. Please note the items to consider for future sessions on slide #13.
   4. Slide #16 shows the conditions of entry into Poland.
   5. The registration page for the May 2022 meeting will be open shortly.
   6. Chair: I would like to thank Jon for all his help in the background to determine the state of our future meetings.
   7. Q: What is the minimum number for mixed-mode meeting in May?
   8. Chair: My view is around 100 people. If it is less than that, then we should switch to an electronic meeting.
   9. Q: I assume that there will also be a minimum number for a face-to-face only meeting.
   10. A: Yes, it is 250 for a face-to-face interim.
   11. Q: Will the room rates change with rising inflation?
   12. A: The room rates are contracted and should not increase as the meeting approaches. The meeting fees align with the venue costs. There are certain aspects (e.g. food) that will increase with inflation.
   13. Q: When will the decision be made about the Montreal meeting in July?
   14. A: There is an EC meeting on March 18th where the decision will be made.
   15. Q: Why are the fees so expensive?
   16. A: This is for the mixed-mode meeting format. This is significantly more expensive than a face-to-face meeting. It’s between $50,000 - $100,000 extra.
   17. Q: Why are the fees the same for remote and in person attendees?
   18. A: This has been investigated and it works out to be roughly the same fees if you attend the meeting and if you are remote. Remember that remote people will also be using the mixed-mode tools.
6. **Timelines**
   1. There are changes to the TGbd, TGbe, TGbf and TGbi timelines. Changes will be made to the timeline shortly.
   2. No questions.
7. **Attendance statistics** (11-22-0210r1 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** (11-22-0210r1)
   1. **Editors** (slide #10)
      1. Please note that the IEEE Standards Style Manual has been updated to a 2021 edition.
      2. No questions.
   2. **ARC SC** (slide #18)
      1. The group considered the re-structuring of clause 6.
      2. There are some other future items regarding the IEEE Std 802 revision.
      3. No questions.
   3. **Coex SC** (slide #24)
      1. There were several discussions during the meeting and there is still work to be done going forward regarding 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.
      2. There will be an IEEE 802 Tech Talk on coexistence in June 2022.
      3. No questions.
   4. **PAR** **SC** (slide #27)
      1. The report will be completed after March 17th, when they meet for the final time within this March Plenary.
      2. No questions.
   5. **WNG** **SC** (slide #28)
      1. There were 3 presentations this session:
         1. “Overview of Wi-Fi 6/6E for Industrial IoT: Enabling Wi-Fi determinism in an IoT world”
         2. “Considerations of Next Generation Beyond 11be”
         3. “Looking ahead to next generation: follow-up”
      2. There will be WNG SC teleconference on April 6th at 09:00 ET for the presentation from Francesco Restuccia, https://mentor.ieee.org/802.11/dcn/22/11-22-0460-01-0wng-making-the-case-for-open-softwarized-data-driven-802-11-networks.pdf.
      3. No questions.
   6. **JTC1 SC** (slide #31)
      1. At the moment, there are some 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.
      2. No questions.
   7. **TGme** (slide #34)
      1. This session continued to resolve comments from LB 258.
      2. There is an ad-hoc planned for April 26-28th 2022 in New York.
      3. No questions.
   8. **TGaz** (slide #38)
      1. The group has completed about 80% of the comments received from the initial SA Ballot.
      2. No questions.
   9. **TGbb** (slide #43)
      1. The session has been spent resolving comments from the initial letter ballot. There will be a later motion to approve and start a re-circulation letter ballot with D2.0.
      2. No questions.
   10. **TGbc** (slide #47)
       1. The comments from the D2.0 re-circulation ballot were completed this session. There will be a motion to approve a re-circulation letter ballot with D3.0.
       2. No questions.
   11. **TGbd** (slide #53)
       1. Comments from LB 259 were discussed during the session and also completed. There will be a motion to approve a re-circulation letter ballot with D4.0 and another motion to request the EC to consider a conditional SA Ballot.
       2. No questions.
   12. **TGbe** (slide #64)
       1. There were 6 conference calls during this session.
       2. The work involved the continuation of comment resolution and the group approved the creation of D1.5.
       3. No questions.
   13. **TGbf** (slide #68)
       1. There were 4 meetings during this session.
       2. There is now a plan to create draft D0.1.
       3. No questions.
   14. **TGbh** (slide #73)
       1. Reviewed some contributions about possible technical topics.
       2. The target to produce a D1.0 has slipped this meeting, but hopefully can be competed in May 2022.
       3. No questions.
   15. **TGbi** (slide #78)
       1. There were discussion about the use cases and issues documents.
       2. No questions.
   16. **ITU AHG** (slide #81)
       1. There were various topics discussed during this session regarding the IEEE 802.11 related contribution documents for the upcoming June ITU-R meeting.
       2. No questions.
9. **Liaison Reports** (11-22-0210r1)
   1. **Wi-Fi Alliance** (slide #84)
      1. There are several certifications based on IEEE 802 programs.
      2. There was a hybrid face to face meeting on March 1st and 2nd 2022 in Dallas. The next meeting will be Chicago in June 2022.
      3. No questions.
   2. **IETF** (slide #88)
      1. The next meeting will be in March 2022 as a hybrid in Vienna.
      2. There is a request from the RAW working group for IEEE 802.11 members to review their documents (slide #104).
      3. Chair: Please review these comments as mentioned on slide #104. I think it’s important to collect comments and then reply to this request.
      4. No questions.
   3. **IEEE 1609** (slide #107)
      1. IEEE 1609 provides a light weight middle layer between 802.11p/bd and an upper layer.
      2. No questions.
10. **Potential Break**
    1. Chair: Are members interested in a break now? Majority of responses were yes, so there was a 5 minute break.
11. **Working Group Motions (Old Business)** (11-22-0264r2)
    1. **Motion 1: P802.11-2020/Cor 1 Initial Letter Ballot** (slide #8)
       1. **Approve a 30-day Working Group Technical Letter Ballot asking the question ‘‘Should P802.11-2020/Cor 1 D1.0 be forwarded to SA Ballot?”.**
       2. Moved: Robert Stacey, Second: Hiroshi Mano
       3. No objection to approving by unanimous consent (Motion passes)
       4. This is to correct an incorrect ANA assignment for 11ay.
    2. **Motion 2: TGme April 2022 Ad-hoc** (slide #9)
       1. **Approve a TGme ad-hoc meeting on April 26-28, 2022 in New York, NY for the purposes of LB258 comment resolutions and consideration of document submissions.**
       2. Moved: Mark Hamilton, Second: Joseph Levy
       3. No objection to approving by unanimous consent (Motion passes)
       4. [TGme result: 8/0/5]
    3. **Motion 3: Liaise IEEE 802.11az/D4.0 to SC6** (slide #10)
       1. **The IEEE 802.11 WG requests that IEEE 802 EC liaise Draft P802.11az/D4.0 to ISO/IEC JTC1 SC6 for information.**
       2. Moved: Jonathan Segev on behalf of TGaz, Second: Assaf Kasher
       3. Result: Yes: 95, No: 0, Abstain: 24 (Motion passes)
       4. [TGaz, Move: Peter Yee, 2nd: Christian Berger, Result: 27/0/3]
    4. **Motion 4: TGbb Recirculation Letter Ballot** (slide #11)
       1. **Having approved comment resolutions for all of the comments received from LB 260 on IEEE P802.11bb D1.0 as contained in documents 11-22/0074r18 and 11-22/0069r2,** 
          * **instruct the TGbb editor to create IEEE P802.11bb D2.0, including the addition of a revised Annex B (11-22/0453r0)**
          * **approve a 15-day Working Group Recirculation Letter Ballot asking the question ‘‘Should P802.11bb D2.0 be forwarded to SA Ballot?”**
       2. Moved: Nikola Serafimovski on behalf of TGbb, Second: Mark Emmelmann
       3. No objection to approving by unanimous consent (Motion passes)
       4. [TGbb moved: Matthias Wendt, 2nd: Volker Jungnickel, result 12/0/2]
    5. **Motion 5: TGbc Recirculation Letter Ballot** (slide #12)
       1. **Having approved comment resolutions for all of the comments received from LB 257 on IEEE P802.11bc D2.0 as contained in document 11-21/1758r29,**

* **instruct the editor to create IEEE P802.11bc D3.0 and,**
* **approve a 20-day Working Group Recirculation Letter Ballot asking the question ''Should P802.11bc D3.0 be forwarded to SA Ballot?"**
  + 1. Moved: Marc Emmelmann on behalf of TGbc, Second: Tunzer Baykas
    2. No objection to approving by unanimous consent (Motion passes)
    3. [TGbc: Moved: Stephen McCann, 2nd: Xiaofei Wang, Results (Y/N/A): 7/0/0]
  1. **Motion 6: TGbd Recirculation Letter Ballot** (slide #13)
     1. **Having approved comment resolutions for all of the comments received from LB 259 on IEEE P802.11bd D3.0 as contained in document 11-21/2018r7, and comment resolutions for all comments from the MDR in document 11-22/0021r14,**
        + **Instruct the editor to prepare P802.11bd Draft 4.0 incorporating these resolutions and,**
        + **Approve a 15 day Working Group Recirculation Ballot asking the question "Should P802.11 D4.0 be forwarded to SA Ballot?"**
     2. Moved: Bo Sun on behalf of TGbd
     3. No objection to approving by unanimous consent (Motion passes)
     4. [TGbd: Moved: Rui Cao, 2nd: Joseph Levy, Results (Y/N/A): 20/0/4]
  2. **Motion 7: TGbd CSD Re-affirmation** (slide #14)
     1. **Re-affirm the P802.11bd CSD in https://mentor.ieee.org/802-ec/dcn/18/ec-18-0251-00-ACSD-p802-11bd.pdf**
     2. Moved: Bo Sun on behalf of TGbd, Second: Harry Bims
     3. Result: Yes: 84, No: 1, Abstain: 20 (Motion passes)
     4. [TGbd: Moved: Bo Sun, 2nd: Stephan Sand, Results (Y/N/A): 18/0/4]
  3. **Motion 8: TGbd Report to EC** (slide #15)
     1. **Approve document 11-22/0411r4 as the report to the IEEE 802 Executive Committee on the requirements for conditional approval to forward P802.11bd to SA Ballot.**
     2. Moved: Bo Sun on behalf of TGbd, Second: Rich Kennedy
     3. Result: Yes: 89, No: 0, Abstain: 24 (Motion passes)
     4. [TGbd: Moved: Bo Sun, 2nd: Joseph Levy, Results (Y/N/A): 19/0/4]
  4. **Motion 9: TGbd Conditional SA Ballot** (slide #16)
     1. **Request the IEEE 802 Executive Committee to conditionally approve forwarding P802.11bd to SA Ballot.**
     2. Moved: Bo Sun on behalf of TGbd, Second: Andy Scott
     3. Result: Yes: 92, No: 0, Abstain: 17 (Motions passes)
     4. [TGbd: Moved: Rich Kennedy, 2nd: John Kenney, Results (Y/N/A): 21/0/2]
  5. **Motion 10: TGbh CSD approval** (slide #17)
     1. **Believing that the updated P802.11bh CSD contained in document 11-22/0434r1 meets IEEE 802 guidelines,**
     2. **Request that the CSD contained in 11-22/0434r1 be posted to the IEEE 802 Executive Committee (EC) agenda for EC preview and approval.**
     3. **Note: The current approved P802.11bh CSD is in 11-20/1117r5.**
     4. Moved: Mark Hamilton on behalf of TGbh, Second: Graham Smith
     5. C: This is to change the CSD as TGbh no longer requires a CA document.
     6. Result: Yes: 86, No: 0, Abstain: 16 (Motions passes)
     7. [TGbh: Results (Y/N/A): 17/1/2]

1. **IEEE 802.11 Chair Election** (**New Business)** (11-22-0264r2)
   1. Chair: I now hand the chair position to the secretary for the following motion.
   2. **Motion 11: WG chair** (slide #18)
      1. **Confirm Dorothy Stanley as the IEEE 802.11 Working Group chair.**
      2. Moved: Marc Emmelmann, Seconded: Stuart Kerry
      3. Result: Yes: 129, No: 0, Abstain: 5 (Motion passes)
      4. Secretary (acting chair): I now hand the chair position back to Dorothy Stanley
2. **IEEE 802.11 Vice-Chair Election** (11-22-0264r2)
   1. **Motion 12: WG vice-chair** (slide #19)
      1. **Confirm Jon Rosdahl as an IEEE 802.11 Working Group vice-chair**
      2. Moved: Allan Jones, Seconded: Amelia Andersdotter
      3. Result: Yes: 124, No: 0, Abstain: 7 (Motion passes)
   2. **Motion 13: WG vice-chair** (slide #20)
      1. **Confirm Robert Stacey as an IEEE 802.11 Working Group vice-chair**
      2. Moved: Harry Bims, Seconded: Stuart Kerry
      3. Result: Yes: 120, No: 0, Abstain: 9 (Motion passes)
3. **Wireless Chairs Meeting** (11-22-0217r1 slide #16)
   1. The next meeting is on April 6th at 15:00 ET. This meeting will use a tool that is recommend for future hybrid meetings. Please contact the IEEE 802.11 chair or vice-chairs with a request for the registration information, or see the calendar entry.
4. **Next Meeting** (slide #17)
   1. The proposed date of the next IEEE 802.11 meeting is May 8-13th as a mixed mode meeting. If it does change to become all electronic, then the dates will be 9-17th May.
   2. The web-site will be updated with your IEEE 802.11 voting status based on your attendance at this March 2022 plenary shortly.
5. **Any other Business (AoB)**
   1. Please do record your attendance for this meeting and also check that you have paid your registration fees for this session.
   2. Q: Has registration started for the May 2022 meeting?
   3. A: Not just yet. It should be opened by the end of this week.
   4. Chair: There are several opportunities at the IEEE SA boards and committees. Please nominate yourselves if you are interested.
6. **Adjournment**
   1. Having completed the agenda, the chair announced that the meeting was adjourned at 11:38 ET.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** | **Attended >= 75%?** | **Status** |
| --- | --- | --- | --- |
| Abouelseoud, Mohamed | Apple Inc. | TRUE | Voter |
| Aboulmagd, Osama | Huawei Technologies Co., Ltd | TRUE | Voter |
| Adachi, Tomoko | TOSHIBA Corporation | TRUE | Voter |
| Adhikari, Shubhodeep | Broadcom Corporation | TRUE | Voter |
| Aio, Kosuke | Sony Group Corporation | FALSE | Voter |
| Ajami, Abdel Karim | Qualcomm Incorporated | TRUE | Voter |
| Akhmetov, Dmitry | Intel Corporation | TRUE | Voter |
| Aldana, Carlos | Facebook | TRUE | Voter |
| Amalladinne, Vamsi | Qualcomm Incorporated | TRUE | Voter |
| An, Song-Haur | INDEPENDENT | TRUE | Voter |
| Andersdotter, Amelia | Sky UK Group | TRUE | Voter |
| Ansley, Carol | Cox Communications Inc. | TRUE | Voter |
| Anwyl, Gary | MediaTek Inc. | 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 | Voter |
| Au, Oscar | Origin Wireless | TRUE | Voter |
| Avital, Ziv | MaxLinear | FALSE | Voter |
| Awater, Geert | Qualcomm Incorporated | TRUE | Voter |
| Aygul, Mehmet | Vestel | TRUE | Voter |
| Baek, SunHee | LG ELECTRONICS | TRUE | Voter |
| Bahn, Christy | IEEE STAFF | TRUE | Potential Voter |
| Bajko, Gabor | MediaTek Inc. | TRUE | Voter |
| Balakrishnan, Hari Ram | NXP Semiconductors | TRUE | Voter |
| Banerjea, Raja | Qualcomm Incorporated | TRUE | Voter |
| Bankov, Dmitry | IITP RAS | TRUE | Voter |
| Baron, stephane | Canon Research Centre France | TRUE | Voter |
| Barr, David | MaxLinear | TRUE | Voter |
| Batra, Anuj | Apple, Inc. | TRUE | Voter |
| Baykas, Tuncer | Kadir Has University, Hyperion Technologies | 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, Christian | NXP Semiconductors | TRUE | Voter |
| Berkema, Alan | HP Inc. | TRUE | Voter |
| Bims, Harry | Bims Laboratories, 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 |
| Bravo, Daniel | Intel Corporation | TRUE | 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 |
| Carter, Edward | Infineon Technologies | TRUE | Voter |
| Cavalcanti, Dave | Intel Corporation | TRUE | Voter |
| Cepni, Gurkan | Apple, Inc. | TRUE | Voter |
| CHAN, YEE | Facebook | TRUE | Voter |
| Chang, Chen-Yi | Mediatek | TRUE | Voter |
| Chaplin, Clint | Self | FALSE | ExOfficio |
| Chappell, Matthew | Cox Communications Inc. | TRUE | Potential Voter |
| Chayat, Naftali | Vayyar Imaging | FALSE | Voter |
| Chemrov, Kirill | IITP RAS | TRUE | Voter |
| Chen, Cheng | Intel Corporation | TRUE | Voter |
| Chen, Cheng-Ming | Qualcomm Incorporated | TRUE | Voter |
| Chen, Evelyn | Ericsson AB | TRUE | Voter |
| Chen, Xiaogang | Intel Corporation | TRUE | Voter |
| Cheng, Paul | 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 | Non-Voter |
| Chng, Shi Baw |  | FALSE | Non-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 |
| Cortes, Diana | Google | 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 |
| de Vegt, Rolf | Qualcomm Incorporated | TRUE | Voter |
| DeLaOlivaDelgado, Antonio | InterDigital, Inc. | TRUE | Voter |
| Delaunay, Nicolas | EASII-IC | TRUE | Aspirant |
| Derham, Thomas | Broadcom Corporation | TRUE | Voter |
| DESMOULIN, Patrice | Orange | TRUE | Aspirant |
| Di Taranto, Rocco | Ericsson AB | 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 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 | Aspirant |
| Fan, Shuang | ZTE Corporation | TRUE | Aspirant |
| Fang, Juan | Intel Corporation | TRUE | Voter |
| Fang, Yonggang | MediaTek Inc. | TRUE | Voter |
| feng, Shuling | MediaTek Inc. | TRUE | Voter |
| Fischer, Matthew | Broadcom Corporation | TRUE | Voter |
| Fletcher, Paul | Samsung Cambridge Solution Center | FALSE | Voter |
| Gan, Ming | Huawei Technologies Co., Ltd | TRUE | Voter |
| Gangur, Trivikram | Infineon Technologies | TRUE | Voter |
| Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd | TRUE | Potential Voter |
| Ghaderipoor, Alireza | MediaTek Inc. | FALSE | Voter |
| Ghosh, Chittabrata | Facebook, Inc. | TRUE | Voter |
| Gilb, James | General Atomics Aeronautical Systems, Inc., University of San Diego | FALSE | ExOfficio |
| Godfrey, Tim | Electric Power Research Institute, Inc. (EPRI) | FALSE | ExOfficio |
| Gong, Bo | Huawei Technologies Co., Ltd | TRUE | Voter |
| GOTO, Fumihide | DENSO | TRUE | Voter |
| Grandhe, Niranjan | NXP Semiconductors | TRUE | Voter |
| Grigat, Michael | Deutsche Telekom AG | TRUE | Voter |
| Grow, Robert | RMG Consulting; KDPOF | FALSE | Non-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 |
| Guthrie, Rebecca | NSA - CCSS | FALSE | Non-Voter |
| gutierrez, luis | Broadcom Corporation | FALSE | Non-Voter |
| Haasz, Jodi | IEEE Standards Association (IEEE-SA) | FALSE | Non-Voter |
| Haider, Muhammad Kumail | Facebook | TRUE | Voter |
| Haider, Zeeshan | British Sky Broadcasting Ltd | TRUE | Aspirant |
| Halasz, David | Morse Micro | TRUE | Voter |
| 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 | Potential 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 |
| Hawkes, Philip | Qualcomm Incorporated | FALSE | Non-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 Group Corporation | TRUE | Voter |
| Ho, Duncan | Qualcomm Incorporated | TRUE | Voter |
| Hoffman, Damian | Vayyar Imaging | FALSE | Voter |
| Holcomb, Jay | Itron Inc. | FALSE | ExOfficio |
| Hsieh, Hung-Tao | MediaTek Inc. | TRUE | Voter |
| Hsu, Chien-Fang | MediaTek Inc. | TRUE | Voter |
| Hsu, Ostrovsky | Xiaomi Inc. | TRUE | Potential Voter |
| Hu, Chunyu | Facebook | TRUE | Voter |
| Hu, Mengshi | Huawei Technologies Co., Ltd | TRUE | Voter |
| Hu, Shengquan | MediaTek Inc. | TRUE | Aspirant |
| 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 | Potential Voter |
| Hwang, Sung Hyun | Electronics and Telecommunications Research Institute (ETRI) | TRUE | Voter |
| Ibrahim, Ahmed | Samsung Research America | TRUE | Voter |
| Ikegami, Tetsushi | Meiji University | TRUE | Voter |
| Inohiza, Hirohiko | Canon | 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 |
| Jia, Jia | Huawei Technologies Co., Ltd | TRUE | Voter |
| jiang, feng | Apple Inc. | TRUE | Voter |
| Jiang, Jinjing | Apple, Inc. | TRUE | Voter |
| jiang, yiming | Nokia | FALSE | Non-Voter |
| Jones, Allan | Activision | TRUE | Voter |
| Jones, Vincent Knowles IV | Qualcomm Incorporated | TRUE | Voter |
| Jung, Insik | LG ELECTRONICS | TRUE | Voter |
| Jungnickel, Volker | Fraunhofer Heinrich Hertz Institute | FALSE | Voter |
| Kain, Carl | USDOT; Noblis, Inc. | TRUE | Voter |
| Kakani, Naveen | Qualcomm Incorporated | TRUE | Voter |
| Kamel, Mahmoud | InterDigital, Inc. | TRUE | Voter |
| Kancherla, Sundeep | Infineon Technologies | TRUE | Voter |
| Kandala, Srinivas | SAMSUNG | TRUE | Voter |
| Kang, HaoHua | MediaTek Inc. | FALSE | Voter |
| KANG, Kyu-Min | Electronics and Telecommunications Research Institute (ETRI) | TRUE | Voter |
| Kang, Sugbong | Apple Inc. | TRUE | Voter |
| Kasargod, Sudhir | Infineon Technologies | TRUE | Voter |
| Kasher, Assaf | Qualcomm Incorporated | TRUE | Voter |
| Katla, satyanarayana | InterDigital, Inc. | TRUE | Potential Voter |
| Kedem, Oren | MaxLinear | TRUE | Voter |
| Kennedy, Richard | IEEE member / Self Employed | TRUE | Voter |
| Kenney, John | Toyota Motor North America | TRUE | Voter |
| Kerry, Stuart | OK-Brit; Self | TRUE | Voter |
| Khorov, EVGENY | IITP RAS | TRUE | Voter |
| Kim, Jeongki | Ofinno | TRUE | Voter |
| Kim, Myeong-Jin | SAMSUNG | TRUE | Voter |
| kim, namyeong | LG ELECTRONICS | TRUE | Voter |
| Kim, Sang Gook | LG ELECTRONICS | TRUE | Voter |
| Kim, Sanghyun | WILUS Inc | TRUE | Voter |
| Kim, Wonjung | LG Uplus | TRUE | Voter |
| Kim, Youhan | Qualcomm Incorporated | TRUE | Voter |
| Kinney, Patrick | Kinney Consulting LLC | FALSE | ExOfficio |
| Kipness, Michael | IEEE Standards Association (IEEE-SA) | FALSE | Non-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 |
| Klimakov, Andrey | Huawei Technologies Co., Ltd | TRUE | Voter |
| KNECKT, JARKKO | Apple, Inc. | TRUE | Voter |
| Ko, Geonjung | WILUS Inc. | TRUE | Voter |
| Kondo, Yoshihisa | Advanced Telecommunications Research Institute International (ATR) | TRUE | Voter |
| Kota, Prashant | Infineon Technologies | TRUE | Voter |
| Koundourakis, Michail | Samsung Cambridge Solution Centre | TRUE | Voter |
| Kumar, Manish | NXP Semiconductors | TRUE | Voter |
| Kumari, Warren | Google | TRUE | Aspirant |
| Kuo, Chih-Chun | MediaTek Inc. | TRUE | Voter |
| Kureev, Aleksey | IITP RAS | TRUE | Voter |
| Lal, Kunal | Synaptics Incorporated | TRUE | Voter |
| Lalam, Massinissa | SAGEMCOM SAS | TRUE | Voter |
| Lanante, Leonardo | Ofinno | TRUE | Voter |
| Lansford, James | Qualcomm Incorporated; University of Colorado at Boulder | TRUE | Voter |
| Le Houerou, Brice | Canon Research Centre France | TRUE | Voter |
| Lee, Nancy | Signify | TRUE | Voter |
| Lee, Wookbong | SAMSUNG | TRUE | 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, Yan | ZTE Corporation | TRUE | Voter |
| Li, Yapu | Guangdong OPPO Mobile Telecommunications Corp.,Ltd | TRUE | Potential Voter |
| Li, Yiqing | Huawei Technologies Co., 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 | TRUE | 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, Jianhan | MediaTek Inc. | TRUE | Voter |
| Liu, Ying | NXP Semiconductors | TRUE | Voter |
| Liu, Yong | Apple, Inc. | TRUE | Voter |
| Liu, Zhiqun |  | FALSE | Non-Voter |
| Liu, Ziqi | Vivo Mobile Communication Co.ltd | 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 |
| LU, Yuxin | Huawei Technologies Co., Ltd | 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 |
| Ma, Mengyao | Huawei Technologies Co., Ltd | TRUE | Voter |
| Malichenko, Dmitrii | ON Semiconductor | TRUE | Voter |
| Malinen, Jouni | Qualcomm Incorporated | TRUE | Voter |
| Mano, Hiroshi | Koden Techno Info K.K. | TRUE | Voter |
| Marks, Roger | EthAirNet Associates; Huawei | FALSE | ExOfficio |
| Martinez Vazquez, Marcos | MaxLinear Corp | TRUE | Voter |
| Max, Sebastian | Ericsson AB | TRUE | Voter |
| Mazor, Nadav | Vayyar Ltd | FALSE | Voter |
| Mccann, Stephen | Huawei Technologies Co., Ltd | 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 |
| Moelker, Dignus-Jan | Broadcom Corporation | TRUE | Voter |
| Mohanty, Bibhu | Qualcomm Incorporated | TRUE | Voter |
| Monajemi, Pooya | Cisco Systems, Inc. | TRUE | Voter |
| Montemurro, Michael | Huawei Technologies Co., Ltd | TRUE | Voter |
| Moran, Ashley | IEEE Standards Association (IEEE-SA) | FALSE | Non-Voter |
| Morioka, Hitoshi | SRC Software | TRUE | Voter |
| Motozuka, Hiroyuki | Panasonic Corporation | TRUE | Voter |
| Mutgan, Okan | Nokia | TRUE | Aspirant |
| Myles, Andrew | Cisco Systems, Inc. | TRUE | Voter |
| Nagai, Yukimasa | Mitsubishi Electric Research Labs (MERL) | TRUE | 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 |
| Namboodiri, Vamadevan | SAMSUNG ELECTRONICS | TRUE | Voter |
| Nandagopalan, SAI SHANKAR | Synaptics | TRUE | Voter |
| Narengerile, Narengerile | Huawei Technologies Co., Ltd | TRUE | Potential Voter |
| Naribole, Sharan | Apple Inc. | TRUE | Voter |
| Nassiri Toussi, Karim | Broadcom Corporation | TRUE | Voter |
| Nayak, Peshal | Samsung Research America | TRUE | Voter |
| Nezou, Patrice | Canon Research Centre France | TRUE | Voter |
| Ng, Boon Loong | Samsung Research America | TRUE | Voter |
| Nguyen, An | U.S. Department of Homeland Security | TRUE | Voter |
| Nikolich, Paul | self employed/various | FALSE | ExOfficio |
| Noh, Yujin | Senscomm | TRUE | Voter |
| Oh, Hyun Seo | Electronics and Telecommunications Research Institute (ETRI) | FALSE | Aspirant |
| Okada, Hiraku | Nagoya University | TRUE | Voter |
| Omar, Hassan | Huawei Technologies Co., Ltd | TRUE | Voter |
| Orr, Stephen | Cisco Systems, Inc. | TRUE | Voter |
| Ouchi, Masatomo | Canon | TRUE | Voter |
| Oyama, Satoshi | Association of Radio Industries and Businesses (ARIB) | TRUE | Voter |
| OZDEN ZENGIN, OZLEM | VESTEL | FALSE | Voter |
| Pan, Chun | Huawei Technologies Co., Ltd | TRUE | Potential Voter |
| Pandey, Sheetal | ON Semiconductor | FALSE | Voter |
| Pare, Thomas | MediaTek Inc. | TRUE | Voter |
| Park, Eunsung | LG ELECTRONICS | TRUE | Voter |
| Park, Minyoung | Intel Corporation | 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 |
| Perahia, Eldad | Hewlett Packard Enterprise | TRUE | Voter |
| Petranovich, James | ViaSat, Inc. | TRUE | Voter |
| Petrick, Albert | InterDigital, Inc. | TRUE | Voter |
| Pettersson, Charlie | Ericsson AB | TRUE | Voter |
| Pirhonen, Riku | NXP Semiconductors | TRUE | Voter |
| Porat, Ron | Broadcom Corporation | TRUE | Voter |
| Ptasinski, Henry | Element78 Communications LLC | TRUE | Potential Voter |
| Puducheri, Srinath | Broadcom Corporation | TRUE | Voter |
| Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. | TRUE | Voter |
| Qi, Emily | Intel Corporation | TRUE | Voter |
| Qi, Liu | Huawei Technologies Co., Ltd | FALSE | Non-Voter |
| QIAN, BIN | Huawei Technologies Co., Ltd | FALSE | Non-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 |
| Rege, Kiran | Perspecta Labs | 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 | TRUE | Voter |
| Rolfe, Benjamin | Blind Creek Associates | TRUE | Voter |
| Rosdahl, Jon | Qualcomm Technologies, Inc. | TRUE | Voter |
| Roy, Sayak | NXP Semiconductors | TRUE | Voter |
| Ryu, Kiseon | Ofinno | TRUE | Voter |
| Sahoo, Anirudha | National Institute of Standards and Technology | TRUE | Potential Voter |
| Sambasivan, Sam | AT&T | TRUE | Voter |
| Sand, Stephan | German Aerospace Center (DLR) | TRUE | Voter |
| Sandhu, Shivraj | Qualcomm Incorporated | TRUE | Voter |
| sang, ran | Huawei Technologies Co., Ltd. | FALSE | Non-Voter |
| Santulli, Jennifer | IEEE STAFF | FALSE | Non-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 |
| Scott, Andy | NCTA | TRUE | Voter |
| Segev, Jonathan | Intel Corporation | TRUE | Voter |
| Seo, Sangho | Infineon Technologies | TRUE | Voter |
| Seok, Joseph | Self | TRUE | Voter |
| Seok, Yongho | MediaTek Inc. | TRUE | Voter |
| Serafimovski, Nikola | pureLiFi | TRUE | Voter |
| Sethi, Ankit | NXP Semiconductors | TRUE | Voter |
| Sevin, Julien | Canon Research Centre France | TRUE | Voter |
| Shafin, Rubayet | Samsung Research America | TRUE | Voter |
| Shah, Kunal | Apple Inc | TRUE | Voter |
| Shaw, Amit | Infineon Technologies | FALSE | Voter |
| Shellhammer, Stephen | Qualcomm Incorporated | FALSE | ExOfficio |
| 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 | FALSE | Non-Voter |
| Smith, Graham | SR Technologies | TRUE | Voter |
| Smith, Luther | Cable Television Laboratories Inc. (CableLabs) | TRUE | Potential Voter |
| Smith, Malcolm | Cisco Systems, Inc. | 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 | TRUE | Potential Voter |
| Stacey, Robert | Intel Corporation | TRUE | Voter |
| Stanley, Dorothy | Hewlett Packard Enterprise | TRUE | Voter |
| Stavridis, Athanasios | Ericsson AB | TRUE | Voter |
| Stepanov, Max | Intel | TRUE | Voter |
| Stott, Noel | Keysight Technologies | TRUE | Voter |
| Strauch, Paul | Qualcomm Incorporated | TRUE | Voter |
| SU, HONGJIA | Huawei Technologies Co., Ltd | TRUE | Voter |
| 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, sheng | Huawei Technologies Co., Ltd | TRUE | Voter |
| Sun, Yanjun | Qualcomm Incorporated | TRUE | Voter |
| Sundman, Dennis | Ericsson AB | TRUE | Voter |
| SURACI, FRANK | U.S. Department of Homeland Security | TRUE | Voter |
| Szott, Szymon | AGH University of Science and Technology | TRUE | Potential Voter |
| Takai, Mineo | Space-Time Engineering | TRUE | Voter |
| Tanaka, Yusuke | Sony Group Corporation | TRUE | Voter |
| Taori, Rakesh | Infineon Technologies | TRUE | Voter |
| Thakur, Sidharth | Apple, Inc. | TRUE | Voter |
| Thompson, Tom | IEEE STAFF | FALSE | Non-Voter |
| Thota, Sri Ramya | Infineon Technologies | TRUE | Voter |
| THOUMY, Francois | Canon Research Centre France | TRUE | Voter |
| Tian, Bin | Qualcomm Incorporated | TRUE | Voter |
| Tian, Tao | Apple, Inc. | TRUE | Non-Voter |
| Tolpin, Alexander | Intel Corporation | TRUE | Voter |
| Torab Jahromi, Payam | Facebook | TRUE | Voter |
| Trainin, Solomon | Qualcomm Incorporated | TRUE | Voter |
| Tsai, Tsung-Han | MediaTek Inc. | TRUE | Voter |
| Tsodik, Genadiy | Huawei Technologies Co., Ltd | TRUE | Voter |
| TU, Chunjiang | Bestechnic INC. | TRUE | Aspirant |
| Turner, Michelle | IEEE STAFF | FALSE | Non-Voter |
| Uln, Kiran | Cypress Semiconductor Corporation | TRUE | Voter |
| Unterhuber, Paul | German Aerospace Center (DLR) | TRUE | Voter |
| Urabe, Yoshio | Panasonic 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. | TRUE | Voter |
| Verma, Sindhu | Broadcom Corporation | TRUE | Voter |
| Vermani, Sameer | Qualcomm Incorporated | TRUE | Voter |
| VIGER, Pascal | Canon Research Centre France | TRUE | Voter |
| Wang, Chao Chun | MediaTek Inc. | TRUE | Voter |
| Wang, Hao | Tencent | TRUE | Voter |
| Wang, Lei | Futurewei Technologies | TRUE | Voter |
| Wang, Qi | Apple, Inc. | TRUE | Voter |
| wang, shao-cheng | Amazon, Inc | TRUE | Aspirant |
| Wang, Steven Qi | Huawei Technologies Co., Ltd | TRUE | Voter |
| Wang, Xiaofei | InterDigital, Inc. | TRUE | Voter |
| Wang, Yi-Hsiu | Zeku | TRUE | Voter |
| Wang, Zisheng | ZTE Corporation | TRUE | Voter |
| Want, Roy | Google | TRUE | Voter |
| Ward, Lisa | Rohde & Schwarz | TRUE | Voter |
| Wei, Dong | NXP Semiconductors | TRUE | Voter |
| Wendt, Matthias | Signify | TRUE | Voter |
| Wentink, Menzo | Qualcomm Incorporated | TRUE | Voter |
| Wilhelmsson, Leif | Ericsson AB | TRUE | Voter |
| Wizenberg, Reut | Vayyar Imaging | FALSE | Voter |
| Wu, Hao | XGIMI Technology Co.Ltd | TRUE | Voter |
| Wu, Kanke | Qualcomm Incorporated | TRUE | Voter |
| Wu, Tianyu | Apple, Inc. | TRUE | Voter |
| Wullert, John | Peraton Labs | TRUE | Voter |
| Xiao, Bo | ZTE Corporation | TRUE | Voter |
| Xin, Liangxiao | Sony Corporation | TRUE | Voter |
| Xin, Yan | Huawei Technologies Co., Ltd | 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, 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 | 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 |
| Yokoyama, Takahiro | Association of Radio Industries and Businesses (ARIB) | TRUE | Voter |
| Yong, Su Khiong | Apple, Inc. | TRUE | Voter |
| Yoshikawa, Yuki | Canon Inc. | TRUE | Voter |
| Yu, Jian | Huawei Technologies Co., Ltd | TRUE | Voter |
| Yu, Mao | Anyka | TRUE | Voter |
| Yukawa, Mitsuyoshi | Canon, Inc. | TRUE | Aspirant |
| Zaman, Malia | IEEE Standards Association (IEEE-SA) | FALSE | Non-Voter |
| Zeng, Ruochen | Apple, Inc. | TRUE | Voter |
| Zeng, Yan | Huawei Technologies Co., Ltd | FALSE | Voter |
| Zhang, Hongyuan | NXP Semiconductors | TRUE | Voter |
| Zhang, Jiayi | Ofinno | TRUE | Potential Voter |
| ZHANG, JIAYIN | Huawei Technologies Co., Ltd | TRUE | Voter |
| Zhang, John | GuangDong OPPO Mobile Telecommunications Corp., Ltd. | FALSE | Non-Voter |
| Zhang, Yan | NXP Semiconductors | TRUE | Voter |
| Zhou, Lei | H3C Technologies Co., Limited | TRUE | Potential Voter |
| Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd | TRUE | Voter |
| Zhou, Renlong | ZTE Corporation | TRUE | Aspirant |
| Zhu, Peiying | Huawei Technologies Co., Ltd | TRUE | Voter |
| Zimmerman, George | CME Consulting/ADI, APL Group, Cisco Systems, CommScope, Marvell, SenTekse LLC | FALSE | Non-Voter |
| Zou, Tristan | Qualcomm Incorporated | FALSE | Aspirant |
| Zuniga, Juan Carlos | Cisco Systems, Inc. | TRUE | Aspirant |

**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](mailto:dstanley@ieee.org) |
| Jon Rosdahl (Qualcomm) | 1st Vice Chair (Venues and meeting planning) Treasurer | +1 (801) 492-4023 [jrosdahl@ieee.org](mailto:jrosdahl@ieee.org) |
| Robert Stacey (Intel Corporation) | 2nd Vice Chair (Rules and reflectors) IEEE 802 (LMSC) EC delegate | +1 (503) 712 4447 [robert.stacey@intel.com](mailto:robert.stacey@intel.com) |
| Stephen McCann (Huawei Technologies Co., Ltd) | Secretary | [stephen.mccann@ieee.org](mailto:stephen.mccann@ieee.org) |
| Peter Ecclesine (Cisco Systems, Inc.) | Co-Technical Editor | +1 (408) 710-3403 [petere@ieee.org](mailto:petere@ieee.org) |
| Robert Stacey (Intel Corporation) | Co-Technical Editor 802.11 Assigned Numbers Authority | +1 (503) 712 4447 [robert.stacey@intel.com](mailto:robert.stacey@intel.com) |

**Standing Committees**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jim Lansford (Qualcomm) | Wireless Next Generation (WNG) Chair | +1-719-286-8660 [jim.lansford@ieee.org](mailto:jim.lansford@ieee.org) |
| Mark Hamilton (Ruckus Wireless) | Architecture (ARC) Chair | +1 (303) 818-8472 [mark.hamilton2152@gmail.com](mailto:mark.hamilton2152@gmail.com) |
| Jon Rosdahl (Qualcomm) | Project Authorization Request (PAR) review Chair | +1 (801) 492-4023 [jrosdahl@ieee.org](mailto:jrosdahl@ieee.org) |
| Andrew Myles (Cisco) | Coexistence Standing Committee Chair | +61 418 656587 [amyles@cisco.com](mailto:amyles@cisco.com) |

**Task Groups**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jonathan Segev (Intel Corporation) | TGaz Chair Next Generation Positioning (NGP) | +972-54-2403587 [jonathan.segev@intel.com](mailto:jonathan.segev@intel.com) |
| Nikola Serafimovski (pureLiFi) | TGbb Chair Light Communication (LC) | +44 131 516 1816 [nikola.serafimovski@purelifi.com](mailto:nikola.serafimovski@purelifi.com%3E) |
| Marc Emmelmann (Koden-TI) | TGbc Chair  Broadcast Services (BCS) | [marc.emmelmann@me.com](mailto:marc.emmelmann@me.com" \t "_blank) |
| Bo Sun (ZTE) | TGbd Chair  Next Generation V2X (NGV) | [sun.bo1@zte.com.cn](mailto:sun.bo1@zte.com.cn) |
| Alfred Asterjadhi  (Qualcomm) | TGbe Chair  Extremely High Throughput (EHT) | aasterja@qti.qualcomm.com |
| Tony Xiao Han  (Huawei Technologies Co., Ltd) | TGbf Chair  WLAN Sensing (SENS) | [tony.hanxiao@huawei.com](mailto:tony.hanxiao@huawei.com) |
| Mark Hamilton  (Ruckus/CommScope Wireless) | TGbh Chair  Random and Changing MAC address (RCM) | +1 (303) 818-8472 [mark.hamilton2152@gmail.com](mailto:mark.hamilton2152@gmail.com) |
| Carol Ansley  (Cox Communications) | TGbi Chair  Enhanced Data Privacy (EDP) | [carol@ansley.com](mailto:carol@ansley.com) |
| Michael Montemurro (Huawei Technologies Co., Ltd) | TGme Chair 802.11 revision project - P802.11REVme | [montemurro.michael@gmail.com](mailto:montemurro.michael@gmail.com) |

|  |
| --- |
|  |

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

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |

**Ad-Hoc Groups (AHG)**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Hassan YAGHOOBI  (Intel) | ITU Ad-Hoc | [hassan.yaghoobi@intel.com](mailto: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](mailto:peter@akayla.com) |
| Ian Sherlock (Texas Instruments Inc.) | Liaison to WFA (Wi-Fi Alliance) | +1-972-995-2011 [isherlock@ieee.org](mailto:isherlock@ieee.org) |

**Liaison Officials to IEEE 802 organizations**

|  |  |  |
| --- | --- | --- |
| Name (Affiliation) | Position | Contact Details |
| Jay Holcomb (Itron) | Liaison to IEEE 802.18 | +1 (509) 891-3281 [jay.holcomb@itron.com](mailto:jay.holcomb@itron.com) |
| Tuncer Baykas (Istanbul Medipol Universitesi) | Liaison to IEEE 802.19 | [tbaykas@ieee.org](mailto:tbaykas@ieee.org" \t "_blank) |
| Tim Godfrey (Electric Power Research Institute) | Liaison to IEEE 802.24 | +1 (650) 855-8584 (office) [tim.godfrey@ieee.org](mailto:tim.godfrey@ieee.org) |
| John Kenney  (Toyota) | Liaison to IEEE 1609 | [jkenney@us.toyota-itc.com](mailto:jkenney@us.toyota-itc.com) |

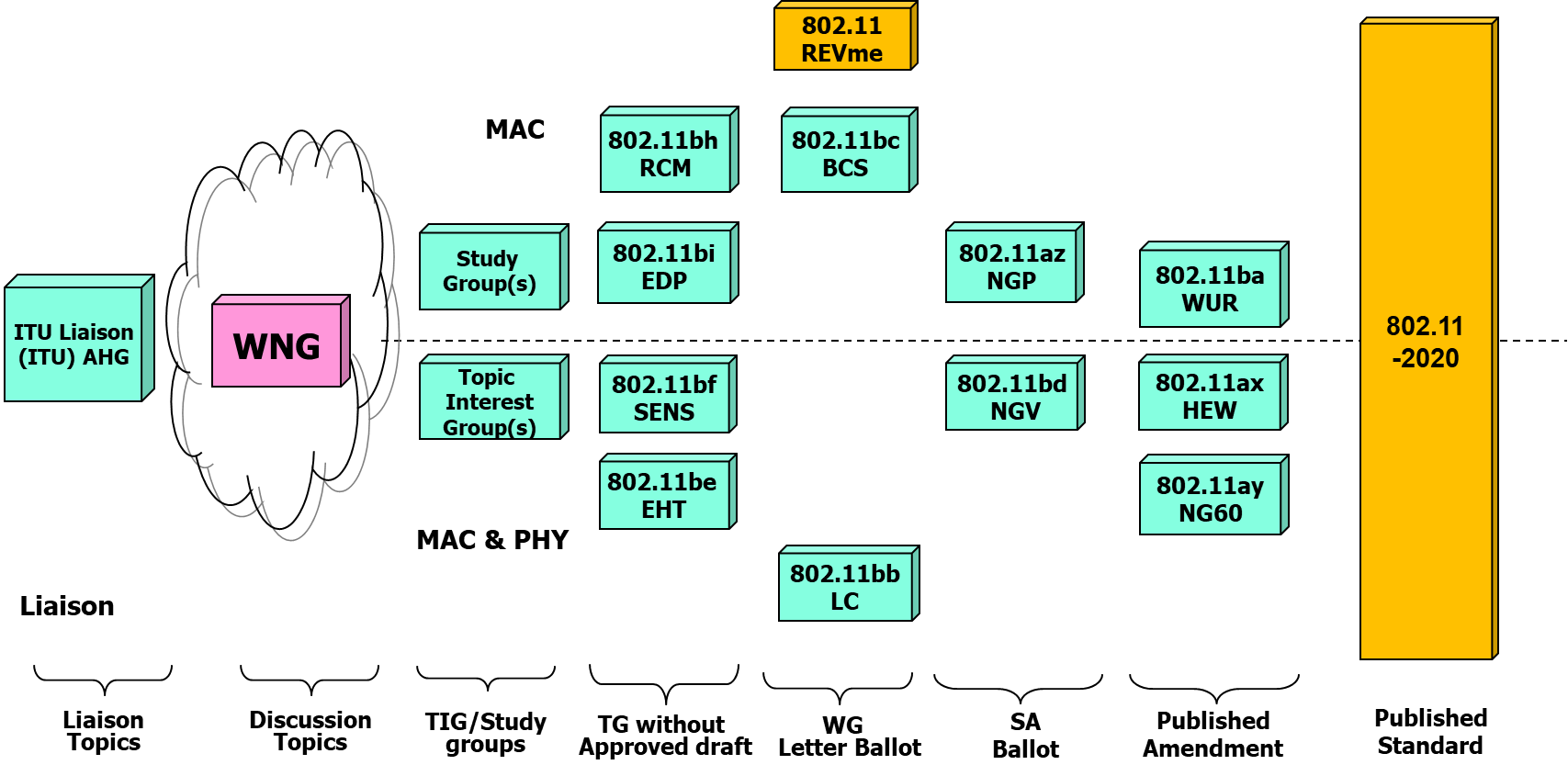
**Annex C : Minutes**

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 | 22-0443r1 |
| TGme | TG | 22-0462r4 |
| TGaz | TG | 22-0448r0 |
| TGbb | TG | 22-0450r0 |
| TGbc | TG | 22-0426r0 |
| TGbd | TG | 22-0500r0 |
| TGbe | TG | 22-0495r1 |
| TGbf | TG | 22-0499r0 |
| TGbh | TG | 22-0488r0 |
| TGbi | TG | 22-0481r0 |
| COEX | SC | 22-0617r0 |
| WNG | SC | 22-0469r0 |
| JTC 802 | SC | 22-0612r0 |
| ARC | SC | 22-0449r0 |
| ITU | AH | 22-0334r0 |
| PAR | SC | 22-0417r0 |

**Annex D : Revisions and Standards Pipeline**

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**IEEE 802.11 Standards Pipeline**

End.