IEEE P802.11  
Wireless LANs

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| Minutes of the IEEE P802.11 Full Working Group | | | | |
| Date: 2021-09-13 | | | | |
| 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 September 2021 meeting.

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

**IEEE 802.11 Plenary Meeting – Session #189**

**September 13th – 21st, 2021**

**IEEE 802.11 Opening Plenary, Monday September 13th 2021**

Presiding chair: Dorothy Stanley (Hewlett Packard Enterprise) opened the meeting at 09:00 Eastern Daylight Time (EDT) and declared quorum for the session.

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

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

Secretary: Stephen McCann Huawei Technologies Co., Ltd

There are 467 voting members and 11 Ex Officio voters of IEEE 802.11\*

There were 260 people present in the meeting.

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

1. **Notices** (11-21-1256r1 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 (IEEE SA Program manager)
2. **Approve/modify working group agenda** (11-21-1255r2)
   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 11-21-1255r2 for the Monday opening plenary**
      1. Moved: Marc Emmelmann, 2nd: Ben Rolfe
      2. No objection to approving by unanimous consent
3. **July 2021 WG Minutes**
   1. **Move to approve the July 2021 WG minutes document 11-21-1204r1**
   2. Moved: Stephen McCann, 2nd: Stuart Kerry
   3. Following neither discussion nor dissent the minutes were approved by unanimous consent.
4. **New Attendees** (11-21-1335r0 slide #4)
   1. Straw Poll:
   2. **Are you a new attendee to IEEE 802.11?**
      1. Yes: 6, No: 92
   3. There is a new members meeting on Tuesday September 14th at 09:00 ET. This is a useful tutorial for those new members to learn about IEEE 802.11.
5. **Call for essential Patents** (11-21-1337r0)
   1. VC2: read out the current PatCom rules, and then called 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** (11-21-1337r0)
   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 the valid abstain response in ballots and also all voting members’ obligations to respond to ballots.
7. **Announcements** (11-21-1256r1)
   1. **Liaisons** (slide #4)
      1. Chair: There are no incoming liaisons for this meeting.
   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** (11-21-1256r0 slide #8)
   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, NENDICA Industry Connections Activity and some of the other IEEE 802 groups.
      2. Chair: This IEEE 802.11 session does not count towards attendance credit. However, based on some recent rules changes, IEEE 802.11 attendance credit will be available in the January 2022 IEEE 802.11 interim meeting.
      3. Chair: Please remember to record your attendance for each meeting during this session.
   3. **M3.3 Other WG meeting plans** (11-21-1316r0 slide #5)
      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 (slide #5)
      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. **M3.6 Meeting Registration** (slide #9)
      1. VC1: Please note that paid registration is required for this meeting. At the moment there are 437 registered people for this September interim.
      2. No questions
   6. **M3.7 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 groups** (11-21-1256r1)
   1. **Group summary** (slide #12)
      1. Chair: This is a review of the current IEEE 802.11 groups.
   2. **Sub-Group Officer Status** (slide #16)
      1. Chair: Please note the changes to sub-group officers for this plenary. There is now a technical editor for TGbd. I would like to acknowledge all the assistance from the volunteers mentioned on this slide.
   3. **Summary of Ballots** (slide #19)
      1. There have been two letter ballots (TGax, TGbd) since the July 2021 meeting and a comment collection (TGbb) has recently started.
10. **Membership** (11-21-1256r1 slide #20)
    * 1. These slides show the IEEE 802.11 membership numbers, by affiliation and whether members have been recently active.
      2. Question (Q): Does this meeting count towards voting rights?
      3. Answer (A): No, it does not.
      4. Chair: If you need access to the members’ area or email reflectors, please send an email to myself or Robert Stacey (VC2) to be given access. In January 2022, the IEEE 802.11 interim will count towards IEEE 802.11 voting rights.
      5. Comment (C): Some other 802 working groups (WGs) are having voting rights this session, e.g. 802.18.
      6. Chair: I decided to not grant voting rights this time, as that was what was announced prior to the recent change in the IEEE 802 rules.
      7. Chair: Please remember that some WGs (e.g. IEEE 802.19) do grant reciprocal voting rights when you attend other WGs.
11. **Timelines**
    1. At the moment, there are no major changes to the timeline chart:
    2. <https://www.ieee802.org/11/Reports/802.11_Timelines.htm>
    3. No questions
12. **Group Summaries** (11-21-1336r0)
    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 (11-11-0270r54).
       2. No questions
    3. **AANI SC** (slide #5)
       1. There are two main items for this session:
       2. a) Complete the technical content for the reply liaison (LS) to the Wireless Broadband Alliance (WBA) **(**[11-21-0170r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0170-00-0000-2021-jan-liaison-from-wba-re-convergence.docx)**)**
       3. b) Progress/Complete [11-21/0013](https://mentor.ieee.org/802.11/dcn/20/11-20-0013-AANI-draft-technical-report-on-interworking-between-3gpp-5g-network-wlan.docx) – the Technical Report on Interworking
       4. No questions
    4. **ARC SC** (slide #7)
       1. There have been several teleconferences since the July 2021 meeting, basically discussing various architecture topics and TGbe multi-link architecture options.
       2. No questions
    5. **Coex** **SC** (slide #9)
       1. This standing committee will now meet once this session.
       2. No questions
    6. **PAR SC** (slide #10)
       1. The standing committee (SC) is not meeting this session.
       2. No questions
    7. **WNG** (slide #11)
       1. There are two presentations this session:
          1. 802/802.11 and Research engagement
          2. Invitation to join the IEEE Synthetic Aperture Standards Committee.
       2. No questions
    8. **JTC1** **SC** (slide #12)
       1. There is 1 meeting during this session.
       2. No questions
    9. **REVme** (slide #16)
       1. The objective for this session is to continue considering comments from the D0.0 comment collection.
       2. REVme D0.3 has been recently produced with the 802.11ax-2021 and 802.11ay-2021 roll-ins.
       3. No questions
    10. **TGaz** (slide #18)
        1. A recent re-circulation letter ballot (LB255) has now finished and therefore the group will consider moving forward to SA ballot this session.
        2. No questions
    11. **TGba** (slide #19)
        1. The publication of IEEE 802.11ba-2021 will occur later in September.
        2. There will be no meeting this session.
        3. No questions.
    12. **TGbb** (slide #20)
        1. A comment collection has now started on Draft 0.6.
        2. The group would like to go for an initial letter ballot in November 2021.
        3. No questions.
    13. **TGbc** (slide #21)
        1. The goals are to complete the resolution of the comments received in the initial letter ballot.
        2. No questions
    14. **TGbd** (slide #23)
        1. The re-circulation letter ballot (LB 254) closed with an 88.5% approval rate and 283 comments.
        2. No questions
    15. **TGbe** (slide #27)
        1. Draft 1.1 has been published since the July 2021 meeting and a lot of comment resolutions have been completed. In addition, an updated co-existence assessment has also been produced.
    16. **TGbf** (slide #30)
        1. There have been 5 teleconference calls since the July 2021 meeting on various topics.
        2. No questions
    17. **TGbh** (slide #32)
        1. There are three meetings during this session.
        2. One topic will be to discuss the scopes of TGbh and TGbi, to avoid overlaps between the two TGs going forward.
        3. No questions.
    18. **TGbi** (slide #33)
        1. There are three meetings during this session.
        2. No questions.
    19. **ITU ad-hoc** (slide #34)
        1. There are 2 submissions that will be discussed during the single meeting this session.
        2. No questions.
13. **IEEE 802.18 Liaison** (11-21-1456r0)
    1. This document shows the details of the IEEE 802.18 meetings this session.
    2. No questions.
14. **IEEE 802.19 Liaison** (11-21-1500r0)
    1. This document shows the details of the IEEE 802.19 electronic interim. Please note that there is only one meeting this session.
    2. No questions.
15. **Recess**
    1. Meeting recessed at 10:33 EDT.

**Tuesday, September 21st 2021**

**IEEE 802.11 Closing Plenary**

Call to order at 09:00 Eastern Daylight Time (EDT) by Dorothy Stanley (HPE).

185 people present in the meeting.

1. **Approve/modify working group agenda** (11-21-1255r4)
   1. Chair: There have been some minor changes to the agenda since the opening plenary.
   2. **Approve the agenda for the Tuesday meeting as shown in 11-21-1255r4**
      1. Moved: Marc Emmelmann, 2nd: Ming Gan
      2. No objection to approving by unanimous consent.
2. **Announcements** (11-21-1257r0)
   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 meeting and CAC meetings** (slide #9)
      1. The next meeting of the IEEE 802.11 working group is from November 8th – 16th 2021 and will be an electronic meeting. Please note the slightly updated dates.
      2. Please be aware of the future chair’s committee meetings (CAC), the first one of which will be on October 4th 09:00 ET. Please note the deadline for the sub-group agendas.
   5. **Sub-group minutes**
      1. Please note that sub-group minutes should be completed within 30 days from the close of this plenary.
   6. **Letters of Assurance (LoA)** (slide #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. Chair: IEEE 802.11ba will be published throughout the fall. IEEE 802.11-2020 is now available for free through the “Get 802” scheme.
   8. **Press Releases** (slide #13)
      1. There have been no recent press releases or blog statements since the July 2021 meeting.
   9. **Public Visibility Standing Committee** (slides #14 - #16)
      1. This IEEE 802 group is designed to increase the external visibility of IEEE 802.
3. **Treasury Report** (ec-21-0186-00)
   1. VC1: This shows the treasurers’ report and is correct up to August 31st 2021.
   2. The IEEE is still changing some of its finance tools at the moment and this is occurring very slowly. Therefore some of the older tools (e.g. Reg Online) are no longer available.
   3. Q: Does the tool export files so they can be worked on offline?
   4. A: Yes, files can be exported into MS Excel.
4. **Future Venues Manager Report** (ec-21-0025r9)
   1. VC1: These slides shows the current status of future venues as of September 1st 2021.
   2. **November 2021**
   3. The plenary will be electronic from November 8-16th 2021.
   4. **Future Venues**
   5. Slide #3 shows the future interim meeting venues.
   6. Q: What time zone will be used for the November 2021 electronic meeting?
   7. A: The current published times are in UTC. There was an error in one of the IEEE 802 announcements, because times were incorrectly converted from UTC to ET.
5. **Timelines**
   1. No task groups (TGs) have any updates this time.
   2. No questions
6. **Attendance statistics** (11-21-1338r2 slide #4)
   1. VC2: These slides are a summary of the attendance statistics and sub-group activities during this session.
7. **WG Committee Reports** (11-21-1338r2)
   1. **Editors** (slide #10)
      1. Produced some comments about the 11ax and 11ay roll-ins to IEEE 802.11-2020
      2. Updates have been made to the MIB style, Visio and Framemaker practices.
      3. No questions
   2. **AANI** **SC** (slide #18)
      1. Progress has been made on two topics:
         1. Interworking between 3GPP 5G network and WLAN.
            1. The work on this report is now complete.
         2. The reply LS to the WBA LS.
      2. There are no current agenda items for the next IEEE 802.11 meeting in November 2021, so this is a request for submissions.
      3. No questions
   3. **ARC SC** (slide #24)
      1. The discussions about the TGbe architecture are almost complete. Document 11-21-1111r9 will shortly be shared with TGbe.
      2. Regarding Annex G, most of the references to it have now been removed in the main body of the specification, so Annex G could be changed or removed in the future.
      3. There may be an IEEE Std 802 revision project starting at some point and ARC SC will be interested in following that activity.
      4. No questions
   4. **Coex SC** (slide #30)
      1. There were several discussions during the meeting.
      2. No questions
   5. **WNG** **SC** (slide #33)
      1. There were two presentations this week:
         1. 802/802.11 and Research engagement” – Dorothy Stanley (HPE), et al
         2. <https://mentor.ieee.org/802.11/dcn/21/11-21-1423-00-0wng-802-802-11-and-research-engagement.pptx>
         3. “`Invitation to Join the IEEE Synthetic Aperture Standards Committee” - Peter Vouras, NIST (& Chair of the Synthetic Aperture Standards Committee in IEEE Signal Processing Society)
         4. <https://mentor.ieee.org/802.11/dcn/21/11-21-1494-00-0wng-invitation-to-synthetic-aperture-standards-committee.pptx>
      2. No questions
   6. **JTC1 SC** (slide #36)
      1. There have been some interesting activities this week.
      2. IEEE 802.11ax did pass the PSDO ballot, but it has some issues with some Letter of Assurances (LoA), e.g. patent, issues.
      3. These issues will be resolved by ISO staff/governance and not the SC6 group.
      4. Q: What is the difference between negative and positive LoAs?
      5. Chair: Please talk to your lawyer. You can find the 802.11 LoAs on the PatCom web site.
      6. Q: Will this LoA distinction go on forever?
      7. A: This will hopefully not be an ongoing issue.
      8. Chair: Regarding the industrial networking item, please can the JTC1 SC liaise with IEEE 802.1.
      9. No questions
   7. **REVme** (slide #44)
      1. This session was spent resolving comments from CC35.
      2. 11ay has been rolled in to REVme D0.3.
      3. There are no changes to the timeline.
      4. No questions
   8. **TGaz** (slide #47)
      1. The TG passed a motion to start a 10 day re-circulation ballot on an unchanged D4.0.
      2. No questions
   9. **TGbb** (slide #52)
      1. Most of the discussion this week was regarding the architecture of a light communications system.
      2. No questions
   10. **TGbc** (slide #56)
       1. All of the comment resolutions from the D1.0 letter ballot were completed and the TG had a motion to recirculate a D2.0 in a 20 day re-circulation letter ballot.
       2. It is hoped that a D2.0 re-circulation letter ballot can possibly start in early October 2021.
       3. No questions
   11. **TGbd** (slide #62)
       1. There were 4 conference calls during this session.
       2. The main work was to consider comments from LB 254 on 11bd D2.0.
       3. No questions
   12. **TGbe** (slide #67)
       1. There were 4 conference calls during this session.
       2. Approved the creation of 11be D1.2, expected by September 24th.
       3. No questions
   13. **TGbf** (slide #71)
       1. There were 3 meetings during this session.
       2. The SFD is continuing to be developed.
       3. No questions
   14. **TGbh** (slide #77)
       1. Reviewed some contributions on scope and requirements for the TG.
       2. The group also worked on an incoming liaison from the WBA, which is a different one [11-21/0703r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0703-00-0000-2021-april-liaison-from-wba.docx) from the one in the AANI SC.
       3. The target is to produce a D0.1 in the November 2021 meeting.
       4. No questions
   15. **TGbi** (slide #83)
       1. The discussion about use cases continued during the session. This should be complete by January 2022.
       2. No questions
   16. **ITU ad-hoc** (slide #86)
       1. There was one meeting during the session that reviewed three submissions.
       2. No questions
8. **Liaison Reports** (11-21-1338r2)
   1. **Wi-Fi Alliance** (slide #89)
      1. There are several certifications based on IEEE 802 programs.
      2. No questions
   2. **IETF** (slide #93)
      1. The next virtual meeting will be in November 2021.
      2. There have been no RFCs published in the last 2 months that mention IEEE 802.11
      3. C: There is interest in a YANG model presentation in the November 2021 meeting.
      4. No questions
   3. **IEEE 1609** (slide #111)
      1. IEEE 1609 provides a light weight middle layer between 802.11p/bd and upper layers as shown in slide #111.
      2. The schedule for the next IEEE 1609 teleconferences is slightly incorrect.
      3. No questions
9. **Break**
   1. Chair: At this point we will have a 5 minute recess
10. **Working Group Motions (Old Business)** (11-21-1335r4)
    1. **AANI LS Response to WBA QoS material** (slide #6)
       1. **Move to liaise the liaison statement provided in document** [**11-21/1198r3**](https://mentor.ieee.org/802.11/dcn/21/11-21-1198-03-AANI-draft-ls-response-to-wba-qos-material.docx) **“Draft LS Response to WBA QoS material” to the WBA, with editorial privileges given to the WG Chair. *Note: future meetings information needs to be added.***
       2. Moved by Joseph Levy on behalf of the AANI SC, 2nd: Thomas Derham
       3. Result: Yes: 65, No: 0, Abstain: 23 (Motion passes)
       4. [In AANI: Moved: Thomas Derham, 2nd: Marco Hernandez, Result: Y:4, N:1, A:2]
    2. **JTC1 liaison regarding PSDO 11ax comments** (slide #7)
       1. **The IEEE 802.11 WG recommends to the IEEE 802 EC that the material in** [**11-21-1400-03**](https://mentor.ieee.org/802.11/dcn/21/11-21-1400-03-0jtc-response-to-comments-on-802-11ax-in-60-day-ballot.docx) **be liaised to ISO/IEC JTC1/SC6 as a response to comments on IEEE 802.11ax during the 60-day ballot under the PSDO agreement with ISO, with editorial privileges given to the WG Chair.**
       2. Moved: Andrew Myles, 2nd: Dan Harkins
       3. C: I speak against this motion. The comments made by the 4 national bodies have not been responded to correctly. The JTC1 meeting did make some editorial updates, but I still don’t think this document is a good response. There are some statements about LoAs that I don’t believe are correct. I don’t think ISO was correctly made aware of the negative LoAs. In addition some of the paragraphs about what LoAs can and cannot do, are not accurate.
       4. C: I don’t want to respond in too much detail. I would note that IEEE SA’s responsibility is to notify ISO about specific issues about patents. The negative LoAs do not refer to any specific patents. However, ISO does have a process whereby they can reach out to the negative LoA holders and I think this is the appropriate process to recommend.
       5. C: I would like to note that the motion includes several separate responses within the liaison and it would be unfortunate not to approve them all.
       6. C: I agree that it is unfortunate that they are several responses that have been grouped together within this single motion. I think it is in the best interests of the working group to split these responses and then have a separate motion on each response.
       7. Chair: I recommend that we consider this motion on its merits.
       8. C: I call the question.
       9. **No objection to calling the question**
       10. Result: Yes: 49, No: 16, Abstain: 35 (Motion passes)
    3. **JTC liaison regarding comments in WG1 N289** (slide #8)
       1. **The IEEE 802.11 WG recommends to the IEEE 802 EC that the material in** [**11-21-1450r1**](https://mentor.ieee.org/802.11/dcn/21/11-21-1450-01-0jtc-response-to-n289.docx) **be liaised to ISO/IEC JTC1/SC6 as a response to comments from the HK NB in WG1 N289, with editorial privileges given to the WG Chair.**
       2. Moved: Andrew Myles, 2nd: Eldad Perahia
       3. Result: Yes: 65, No: 5, Abstain: 25 (Motion passes)
    4. **TGaz Re-circulation letter ballot** (slide #9)
       1. **Having approved comment resolutions for all of the comments received from LB255 on P802.11az D4.0 as contained in document** [**11-21-1471r2**](https://mentor.ieee.org/802.11/dcn/21/11-21-1471-02-00az-lb-255-comments.xlsx)**,**
       2. **Approve a 10 day Working Group Recirculation Ballot asking the question “Should P802.11az D4.0 (unchanged) be forwarded to SA Ballot?”**
       3. Moved: Jonathan Segev on behalf of TGaz
       4. No objection to approving by unanimous consent
       5. [In TGaz: Moved: Roy Want, 2nd: Ali Raissinia, Results (Y/N/A): 15/0/0]
    5. **TGaz Re-affirm CSD** (slide #10)
       1. **Re-affirm the CSD in** [**https://mentor.ieee.org/802-ec/dcn/19/ec-19-0064-00-ACSD-p802-11az.docx**](https://mentor.ieee.org/802-ec/dcn/19/ec-19-0064-00-ACSD-p802-11az.docx)
       2. Moved: Jonathan Segev on behalf of TGaz, 2nd: Jerome Henry
       3. Result: Yes: 82, No: 0, Abstain: 8 (Motion passes)
       4. [In TGaz: Moved: Roy Want, 2nd: Sai Nandagopalan , Results (Y/N/A): 16/0/1]
    6. **TGaz Approve Report to EC** (slide #11)
       1. **Believing that P802.11az D4.0 meets the conditions for IEEE 802 SA ballot,**
       2. **Approve the report in** [**11-21-1501r3**](https://mentor.ieee.org/802.11/dcn/21/11-21-1501-03-00az-p802-11az-report-to-ec-on-approval-to-go-to-sa-ballot.pptx) **as the report to the IEEE 802 EC on the requirements for unconditional approval to forward P802.11az to RevCom, granting the WG chair editorial license, and**
       3. **Request the IEEE 802 Executive Committee to forward P802.11az D4.0 to SA ballot.**
       4. Moved: Jonathan Segev on behalf of TGaz, 2nd: Jerome Henry
       5. Result: Yes: 77, No: 0, Abstain: 7 (Motion passes)
       6. [In TGaz: Moved: Roy Want, 2nd: Qi Wang, Results (Y/N/A): 15/0/0]
    7. **TGbc re-circulation letter ballot** (slide #12)
       1. **Having approved comment resolutions for all of the comments received from LB 252 on P802.11bc D1.0 as contained in document** [**11-20-1985r49**](https://mentor.ieee.org/802.11/dcn/20/11-20-1985-49-00bc-lb-252-comments-on-p802-11bc-draft-1-0.xlsx)**,**
       2. **instruct the TGbc editor to create P802.11bc D2.0 incorporating these resolutions and,**
       3. **approve a 20-day Working Group Recirculation Ballot asking the question “Should P802.11bc D2.0 be forwarded to SA Ballot?”**
       4. Moved: Marc Emmelmann on behalf of TGbc
       5. No objection to approving by unanimous consent
       6. [In TGbc: Moved: Stephen McCann, 2nd: Xiaofei Wang, Results (Y/N/A): 8/0/0]
11. **11ba Awards** (11-21-1525r0)
    1. This document contains a list of people who contributed to the TGba project which will result in IEEE Std 802.11ba-2021 due to be published later this month.
    2. Chair: Congratulations to all people mentioned in this document and thank you for all your hard work. I would like to thank Minyoung Park for his great leadership through the 802.11ba project.
12. **Optimizing 802.11be Release 1** (11-21-1536r0)
    1. This is a presentation about how 11be Release 1 can optimized for Enterprise AP use cases.
    2. Q: There are no comments in TGbe on these topics at the moment? Will there be some future comments?
    3. A: Yes, some were created for the initial 11be comment collection.
    4. C: Ok, that’s interesting.
    5. Q: Regarding slide #8, there is no other way to add a link, except in a pre-associated state and it would be good to add another mechanism.
    6. C: Regarding the restricted TWT, in practice there are OBSS STAs that do not understand RTWT and so all that can be done is to produce s recommended practice. There have been several months of discussion about this already in TGbe, but I don’t think there is any worth in re-discussing these points again.
    7. Chair: Since the time is so short, I would like to suggest that the other questions be discussed within TGbe.
13. **Wireless Chairs Meeting** (11-21-1257r0 slide #16)
    1. The next meeting will be on October 6th at 15:00 ET.
    2. Please note that the January 2022 meeting will be electronic.
14. **Next Meeting** (11-21-1257r0 slide #17)
    1. The proposed date of the next IEEE 802.11 meeting is November 8th – 16th, 2021. Please note that there is a registration fee for that meeting.
15. **IEEE ComSoc WLAN Edition** (11-21-1257r0 slide #18)
    1. Please refer to the link on the slide, regarding a future IEEE ComSoc WLAN edition about the recent and future evolution of Wi-Fi.
    2. If you are interested in contributing towards this magazine, please look at this link.
    3. No questions
16. **Any other Business (AoB)**
    1. None
17. **Adjournment**
    1. Having completed the agenda, the chair announced that the meeting was adjourned at 12:00 EDT.

**Annex A: Attendance & Affiliation**

| **Name** | **Affiliation** |
| --- | --- |
| Abdelaal, Rana | Broadcom Corporation |
| AbidRabbu, Shaima' | Istanbul Medipol University; Vestel |
| Abouelseoud, Mohamed | Sony Corporation |
| Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| Adachi, Tomoko | TOSHIBA Corporation |
| Agardh, Kare | Acconeer AB |
| Aio, Kosuke | Sony Group Corporation |
| Ajami, Abdel Karim | Qualcomm Incorporated |
| Akhmetov, Dmitry | Intel Corporation |
| Al Falujah, Iyad | ON Semiconductor |
| Aldana, Carlos | Facebook |
| Alpert, Yaron | Texas Instruments Inc. |
| An, Song-Haur | INDEPENDENT |
| Andersdotter, Amelia | None - Self-funded |
| Ansley, Carol | Cox Communications Inc. |
| Anwyl, Gary | MediaTek Inc. |
| Asterjadhi, Alfred | Qualcomm Incorporated |
| Au, Kwok Shum | Huawei Technologies Canada; Huawei Technologies Co., Ltd |
| Au, Oscar | Origin Wireless |
| Auluck, Vijay | Self |
| Awater, Geert | Qualcomm Incorporated |
| B, Hari Ram | NXP Semiconductors |
| Baek, SunHee | LG ELECTRONICS |
| Bahn, Christy | IEEE STAFF |
| Bajko, Gabor | MediaTek Inc. |
| Banerjea, Raja | Qualcomm Incorporated |
| Bankov, Dmitry | IITP RAS |
| baron, stephane | Canon Research Centre France |
| Barr, David | MaxLinear |
| Batra, Anuj | Apple, Inc. |
| Baykas, Tuncer | Kadir Has University, Hyperion Technologies |
| Beg, Chris | Cognitive Systems Corp. |
| Bei, Jianwei | NXP Semiconductors |
| Berens, Friedbert | FBConsulting Sarl |
| Berger, Christian | NXP Semiconductors |
| Berkema, Alan | HP Inc. |
| Berner, Stephan | pureLiFi |
| Bhandaru, Nehru | Broadcom Corporation |
| Bims, Harry | Bims Laboratories, Inc. |
| Bluschke, Andreas | Signify |
| Bober, Lennert | Fraunhofer Heinrich Hertz Institute |
| Boldy, David | Broadcom Corporation |
| Bravo, Daniel | Intel Corporation |
| Bredewoud, Albert | Broadcom Corporation |
| Cao, Rui | NXP Semiconductors |
| Cariou, Laurent | Intel Corporation |
| Carney, William | Sony Group Corporation |
| Chayat, Naftali | Vayyar Imaging |
| Chemrov, Kirill | IITP RAS |
| Chen, Cheng | Intel Corporation |
| Chen, Cheng-Ming | Qualcomm Incorporated |
| Chen, Evelyn | Ericsson Inc. |
| Cheng, Po-Yuen | MediaTek Inc. |
| CHERIAN, GEORGE | Qualcomm Incorporated |
| Chiang, James | MediaTek Inc. |
| Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| Chiu, Lin-Kai | MediaTek Inc. |
| Cho, Hanbyeog | Electronics and Telecommunications Research Institute (ETRI) |
| Choi, Jinsoo | LG ELECTRONICS |
| Choo, Seungho | Senscomm Semiconductor Co., Ltd. |
| Chu, Liwen | NXP Semiconductors |
| CHUN, JINYOUNG | LG ELECTRONICS |
| Chung, Bruce | Realtek Semiconductor Corp. |
| Chung, Chulho | SAMSUNG |
| Ciochina, Dana | Sony Corporation |
| Coffey, John | Realtek Semiconductor Corp. |
| Cordeiro, Carlos | Intel Corporation |
| Cortes, Diana | Google |
| da Silva, Claudio | Facebook |
| Das, Dibakar | Intel Corporation |
| Das, Subir | Perspecta Labs |
| Dash, Debashis | Apple, Inc. |
| de Vegt, Rolf | Qualcomm Incorporated |
| DeLaOlivaDelgado, Antonio | InterDigital, Inc. |
| Derham, Thomas | Broadcom Corporation |
| Ding, Yanyi | Panasonic Corporation |
| Dong, mingjie | Huawei Technologies Co., Ltd |
| Dong, Xiandong | Xiaomi Inc. |
| Du, Rui | Huawei Technologies Co., Ltd |
| Duan, Ruchen | SAMSUNG |
| Ecclesine, Peter | Cisco Systems, Inc. |
| Eitan, Alecsander | Qualcomm Incorporated |
| ElSherif, Ahmed | Qualcomm Incorporated |
| EMMELMANN, MARC | Self Employed / Koden-TI / Fraunhofer FOKUS |
| Erceg, Vinko | Broadcom Corporation |
| Fang, Juan | Intel Corporation |
| Fang, Yonggang | Mediatek |
| feng, Shuling | MediaTek Inc. |
| Fischer, Matthew | Broadcom Corporation |
| Fukunaga, Masatoshi | Yokohama National University |
| Gan, Ming | Huawei Technologies Co., Ltd |
| Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| Gardner, James | Qualcomm Incorporated |
| Ghaderipoor, Alireza | MediaTek Inc. |
| Ghosh, Chittabrata | Facebook, Inc. |
| Godfrey, Tim | Electric Power Research Institute, Inc. (EPRI) |
| Gong, Bo | Huawei Technologies Co., Ltd |
| Goodall, David | Morse Micro |
| Goto, Fumihide | DENSO |
| Grandhe, Niranjan | NXP Semiconductors |
| Gu, Xiangxin | Unisoc |
| GUIGNARD, Romain | Canon Research Centre France |
| Gwon, OhGyoung | AHNIST |
| Haasz, Jodi | IEEE SA |
| Haider, Muhammad Kumail | Facebook |
| Halasz, David | Morse Micro |
| Hamilton, Mark | Ruckus/CommScope |
| HAN, CHONG | pureLiFi |
| Han, Jonghun | SAMSUNG |
| HAN, Xiao | Huawei Technologies Co., Ltd |
| Han, Zhiqiang | ZTE Corporation |
| Handte, Thomas | Sony Corporation |
| Harkins, Daniel | Hewlett Packard Enterprise (Aruba Networks) |
| Harrison, Edward | Anritsu Company |
| Hart, Brian | Cisco Systems, Inc. |
| Henry, Jerome | Cisco Systems, Inc. |
| Hernandez, Marco | National Institute of Information and Communications Technology (NICT) |
| Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| Hiertz, Guido | Ericsson GmbH |
| Ho, Duncan | Qualcomm Incorporated |
| Holcomb, Jay | Itron Inc. |
| Hsieh, Hung-Tao | MediaTek Inc. |
| Hsu, Chien-Fang | MediaTek Inc. |
| Hu, Chunyu | Facebook |
| Huang, Lei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| Huang, Po-Kai | Intel Corporation |
| Huang, Xiaolong | Qualcomm Incorporated |
| Hwang, Sung Hyun | Electronics and Telecommunications Research Institute (ETRI) |
| Ibrahim, Ahmed | Samsung Research America |
| Ikegami, Tetsushi | Meiji University |
| Jang, Insun | LG ELECTRONICS |
| Jeffries, Timothy | Futurewei Technologies |
| Jeon, Eunsung | SAMSUNG ELECTRONICS |
| Ji, Chenhe | Huawei Technologies Co., Ltd |
| Jian, Rongling | Vivo Mobile Communication Co., Ltd. |
| Jiang, Jinjing | Apple Inc. |
| Jianjun, Guo | TP-Link Corporation Limited |
| JO, WONWOO | PINTEL |
| Joh, Hanjin | KT Corp. |
| Jones, Allan | Activision |
| Jones, Rachel | Savannah River National Lab |
| Jones, Vincent Knowles IV | Qualcomm Incorporated |
| Jung, Insik | LG ELECTRONICS |
| Jungnickel, Volker | Fraunhofer Heinrich Hertz Institute |
| Kadampot, Ishaque Ashar | Qualcomm Incorporated |
| Kain, Carl | USDOT; Noblis, Inc. |
| Kakani, Naveen | Qualcomm Incorporated |
| Kamel, Mahmoud | InterDigital, Inc. |
| Kandala, Srinivas | SAMSUNG |
| KANG, Kyu-Min | Electronics and Telecommunications Research Institute (ETRI) |
| Kasher, Assaf | Qualcomm Incorporated |
| katla, satyanarayana | InterDigital, Inc. |
| Kedem, Oren | Maxlinear Corp |
| Kennedy, Richard | IEEE member / Self Employed |
| Kenney, John | Toyota Motor North America |
| Kerry, Stuart | OK-Brit; Self |
| Khorov, Evgeny | IITP RAS |
| Kim, Jeongki | Ofinno |
| Kim, Myeong-Jin | SAMSUNG |
| kim, namyeong | LG ELECTRONICS |
| Kim, Sang Gook | LG ELECTRONICS |
| Kim, Sanghyun | WILUS Inc. |
| Kim, Wonjung | LG Uplus |
| Kim, Yongho | Korea National University of Transportation |
| Kim, Youhan | Qualcomm Incorporated |
| KIM, Youngjae | Telecommunications Technology Association (TTA) |
| Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| Kitazawa, Shoichi | Muroran IT |
| Klein, Arik | Huawei Technologies Co., Ltd |
| Klimakov, Andrey | Huawei Technologies Co., Ltd |
| Kneckt, Jarkko | Apple, Inc. |
| Ko, Geonjung | WILUS Institute |
| Kondo, Yoshihisa | Advanced Telecommunications Research Institute International (ATR) |
| Ku, Susan | MediaTek Inc. |
| Kumar, Manish | NXP Semiconductors |
| Kureev, Aleksey | IITP RAS |
| Lal, Kunal | Synaptics Incorporated |
| Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| Lan, Zhou | Broadcom Corporation |
| Lanante, Leonardo | Kyushu Institute of Technology |
| Lansford, James | Qualcomm Incorporated; University of Colorado at Boulder |
| Lee, Hong Won | LG ELECTRONICS |
| Lee, Hyeong Ho | Netvision Telecom Inc. |
| Lee, Nancy | Signify |
| Lee, Wookbong | SAMSUNG |
| Levesque, Chris | qorvo |
| Levitsky, Ilya | IITP RAS |
| Levy, Joseph | InterDigital, Inc. |
| Li, Bo | Northwestern Polytechnical University |
| Li, Jialing | Qualcomm Technologies, Inc. |
| Li, Liang | Vinno Technologies Inc. |
| Li, Qinghua | Intel |
| Li, Wanyi | TP-Link Corporation Limited |
| li, yan | ZTE Corporation |
| Li, Yapu | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| Li, Yiqing | Huawei Technologies Co., Ltd |
| Li, Yunbo | Huawei Technologies Co., Ltd |
| Lim, Dong Guk | LG ELECTRONICS |
| Lin, Hsin-De | MediaTek Inc. |
| Lin, Zinan | InterDigital, Inc. |
| Lindskog, Erik | SAMSUNG |
| liu, baosheng | longsailing |
| LIU, CHENCHEN | Huawei Technologies Co., Ltd |
| Liu, Der-Zheng | Realtek Semiconductor Corp. |
| Liu, Jianhan | MediaTek Inc. |
| Liu, Yong | Apple, Inc. |
| Loginov, Vyacheslav | IITP RAS |
| Lopez, Miguel | Ericsson AB |
| Lorgeoux, Mikael | Canon Research Centre France |
| Lou, Hanqing | InterDigital, Inc. |
| Lou, Hui-Ling | NXP Semiconductors |
| Lu, kaiying | MediaTek Inc. |
| Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| Lu, Yi | Huawei Technologies Co., Ltd |
| Lumbatis, Kurt | CommScope, Inc. |
| Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| Lyakh, Mikhail | ON Semiconductor |
| Ma, Li | MediaTek Inc. |
| Malinen, Jouni | Qualcomm Incorporated |
| Mano, Hiroshi | Koden Techno Info K.K. |
| Martinez Vazquez, Marcos | MaxLinear Corp |
| Max, Sebastian | Ericsson AB |
| McCann, Stephen | Huawei Technologies Co., Ltd |
| Mehrnoush, Morteza | Facebook |
| Minotani, Jun | Panasonic Corporation |
| Mohanty, Bibhu | Qualcomm Incorporated |
| Monajemi, Pooya | Cisco Systems, Inc. |
| Montemurro, Michael | Huawei Technologies Co., Ltd |
| Montreuil, Leo | Broadcom Corporation |
| Moon, Juseong | Korea National University of Transportation |
| Morioka, Hitoshi | SRC Software |
| Moskowitz, Robert | HTT Consulting |
| Motozuka, Hiroyuki | Panasonic Corporation |
| Mueller, Robert | Technische Universitaet Ilmenau |
| Murti, Wisnu | SeoulTech |
| Myles, Andrew | Cisco Systems, Inc. |
| NAGATA, KENGO | Nippon Telegraph and Telephone Corporation (NTT) |
| Naik, Gaurang | Qualcomm Incorporated |
| Nam, Junyoung | Qualcomm Incorporated |
| NANDAGOPALAN, SAI SHANKAR | Synaptics |
| Nayak, Peshal | Samsung Research America |
| Nezou, Patrice | Canon Research Centre France |
| Ng, Boon Loong | Samsung Research America |
| Nguyen, An | U.S. Department of Homeland Security |
| Nikolich, Paul | self employed/various |
| noh, yujin | Senscomm |
| Nurani Krishnan, Neelakantan | Qualcomm Incorporated |
| Nydell, Jonathan | PHION Technologies |
| Oh, Hyun Seo | Electronics and Telecommunications Research Institute (ETRI) |
| Orlando, Christian | IEEE Standards Association (IEEE-SA) |
| Orr, Stephen | Cisco Systems, Inc. |
| Oyama, Satoshi | Association of Radio Industries and Businesses (ARIB) |
| Ozbakis, Basak | VESTEL Electronics Corp. |
| Palayur, Saju | Maxlinear Inc. |
| Palm, Stephen | Broadcom Corporation |
| PANG, KUN | Honor Device Co., Ltd. |
| Pare, Thomas | MediaTek Inc. |
| Park, Eunsung | LG ELECTRONICS |
| Park, Minyoung | Intel Corporation |
| Patil, Abhishek | Qualcomm Incorporated |
| Patwardhan, Gaurav | Hewlett Packard Enterprise |
| Perahia, Eldad | Hewlett Packard Enterprise |
| Perez, Dan | IEEE STAFF |
| Peterson, Bror | Qorvo |
| Petrick, Albert | InterDigital |
| Pirhonen, Riku | NXP Semiconductors |
| porat, ron | Broadcom Corporation |
| Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| Qi, Emily | Intel Corporation |
| Rai, Kapil | Qualcomm Technologies, Inc. |
| Raissinia, Alireza | Qualcomm Incorporated |
| Ratnam, Vishnu | Samsung Research America |
| Rege, Kiran | Perspecta Labs |
| Rezk, Meriam | Qualcomm Incorporated |
| Riegel, Maximilian | Nokia |
| RISON, Mark | Samsung Cambridge Solution Centre |
| Robert, Joerg | TU Ilmenau, Fraunhofer IIS |
| Roder, Patricia | IEEE Standards Association (IEEE-SA) |
| Rolfe, Benjamin | Blind Creek Associates |
| Rosdahl, Jon | Qualcomm Technologies, Inc. |
| Roy, Sayak | NXP Semiconductors |
| Ryu, Kiseon | Ofinno |
| Sambasivan, Sam | AT&T |
| Sand, Stephan | German Aerospace Center (DLR) |
| Sandhu, Shivraj | Qualcomm Incorporated |
| Sarris, Ioannis | Adveos |
| Schelstraete, Sigurd | MaxLinear |
| Sedin, Jonas | Ericsson AB |
| Segev, Jonathan | Intel corporation |
| Seok, Joseph | Self |
| Seok, Yongho | MediaTek Inc. |
| Serafimovski, Nikola | pureLiFi |
| Sethi, Ankit | NXP Semiconductors |
| Sevin, Julien | Canon Research Centre France |
| Shafin, Rubayet | Samsung Research America |
| Shah, Kunal | Itron Inc. |
| Shalom, Hai | Google |
| Shellhammer, Stephen | Qualcomm Incorporated |
| Sherlock, Ian | Texas Instruments Inc. |
| Shilo, Shimi | Huawei Technologies Co., Ltd |
| Smith, Graham | SRT Wireless |
| Son, Ju-Hyung | WILUS Inc. |
| Sosack, Robert | Molex Incorporated |
| Srivatsa, Veena | Synaptics |
| Stacey, Robert | Intel Corporation |
| Stanley, Dorothy | Hewlett Packard Enterprise |
| Stavridis, Athanasios | Ericsson AB |
| Stott, Noel | Keysight Technologies |
| Strauch, Paul | Qualcomm Incorporated |
| SUH, JUNG HOON | Huawei Technologies Co., Ltd |
| Sun, Bo | ZTE Corporation |
| Sun, Li-Hsiang | Sony Corporation |
| Sun, Sheng | Huawei Technologies Canada; Huawei Technologies Co., Ltd |
| Sun, Yanjun | Qualcomm Incorporated |
| Sundman, Dennis | Ericsson AB |
| Takai, Mineo | Space-Time Engineering |
| Tanaka, Yusuke | Sony Group Corporation |
| Thakur, Sidharth | Apple Inc. |
| Thompson, Tom | IEEE STAFF |
| THOUMY, Francois | Canon |
| Tian, Bin | Qualcomm Incorporated |
| Torab Jahromi, Payam | Facebook |
| Trainin, Solomon | Qualcomm Incorporated |
| Tsai, Tsung-Han | MediaTek Inc. |
| Tsodik, Genadiy | Huawei Technologies Co., Ltd |
| Uln, Kiran | Cypress Semiconductor Corporation |
| Urabe, Yoshio | Panasonic Corporation |
| Van Nee, Richard | Qualcomm Incorporated |
| Van Zelst, Allert | Qualcomm Incorporated |
| Varshney, Prabodh | Nokia |
| Verenzuela, Daniel | Sony Corporation |
| VIGER, Pascal | Canon Research Centre France |
| Wang, Chao Chun | MediaTek Inc. |
| Wang, Hao | Tencent |
| Wang, Huizhao | Quantenna Communications, Inc. |
| Wang, Lei | Futurewei Technologies |
| Wang, Pu | Mitsubishi Electric Research Labs (MERL) |
| Wang, Qi | Apple, Inc. |
| Wang, Xiaofei | InterDigital, Inc. |
| Wang, Yi | Huawei Technologies Co., Ltd |
| Want, Roy | Google |
| Ward, Lisa | Rohde & Schwarz |
| Wei, Dong | NXP Semiconductors |
| Wendt, Matthias | Signify |
| Wentink, Menzo | Qualcomm Incorporated |
| Wilhelmsson, Leif | Ericsson AB |
| Wu, Kanke | Qualcomm Incorporated |
| Wu, Shengwei | Synaptics Inc |
| Wu, Tianyu | Apple, Inc. |
| Wullert, John | Perspecta Labs |
| Xiao, Bo | ZTE Corporation |
| Xin, Liangxiao | Sony Corporation |
| Xin, Yan | Huawei Technologies Co., Ltd |
| YAGHOOBI, HASSAN | Intel Corporation |
| Yan, Zhongjiang | Northwestern Polytechnical University |
| Yang, Bo | Huawei Technologies Co., Ltd |
| Yang, Jay | Nokia |
| Yang, Mao | Northwestern Polytechnical University |
| YANG, RUI | InterDigital, Inc. |
| Yang, Steve TS | MediaTek Inc. |
| Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| Yee, James | MediaTek Inc. |
| Yee, Peter | NSA-CSD |
| yi, yongjiang | Spreadtrum Communication USA Inc. |
| Yokoyama, Takahiro | Association of Radio Industries and Businesses (ARIB) |
| Yu, Mao | Anyka |
| Yucek, Tevfik | Qualcomm Incorporated |
| Zaman, Malia | IEEE Standards Association (IEEE-SA) |
| ZHANG, JIAYIN | Huawei Technologies Co., Ltd |
| Zhang, Yan | NXP Semiconductors |
| Zou, Tristan | Qualcomm Incorporated |
| Zuo, Xin | Tencent |

**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) |
| Joseph Levy  (InterDigital Communications Inc.) | Advanced Access Network Interface (AANI) Chair | +1.631.622.4139 [jslevy@ieee.org](mailto:jslevy@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) |
| 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) |
| 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) |

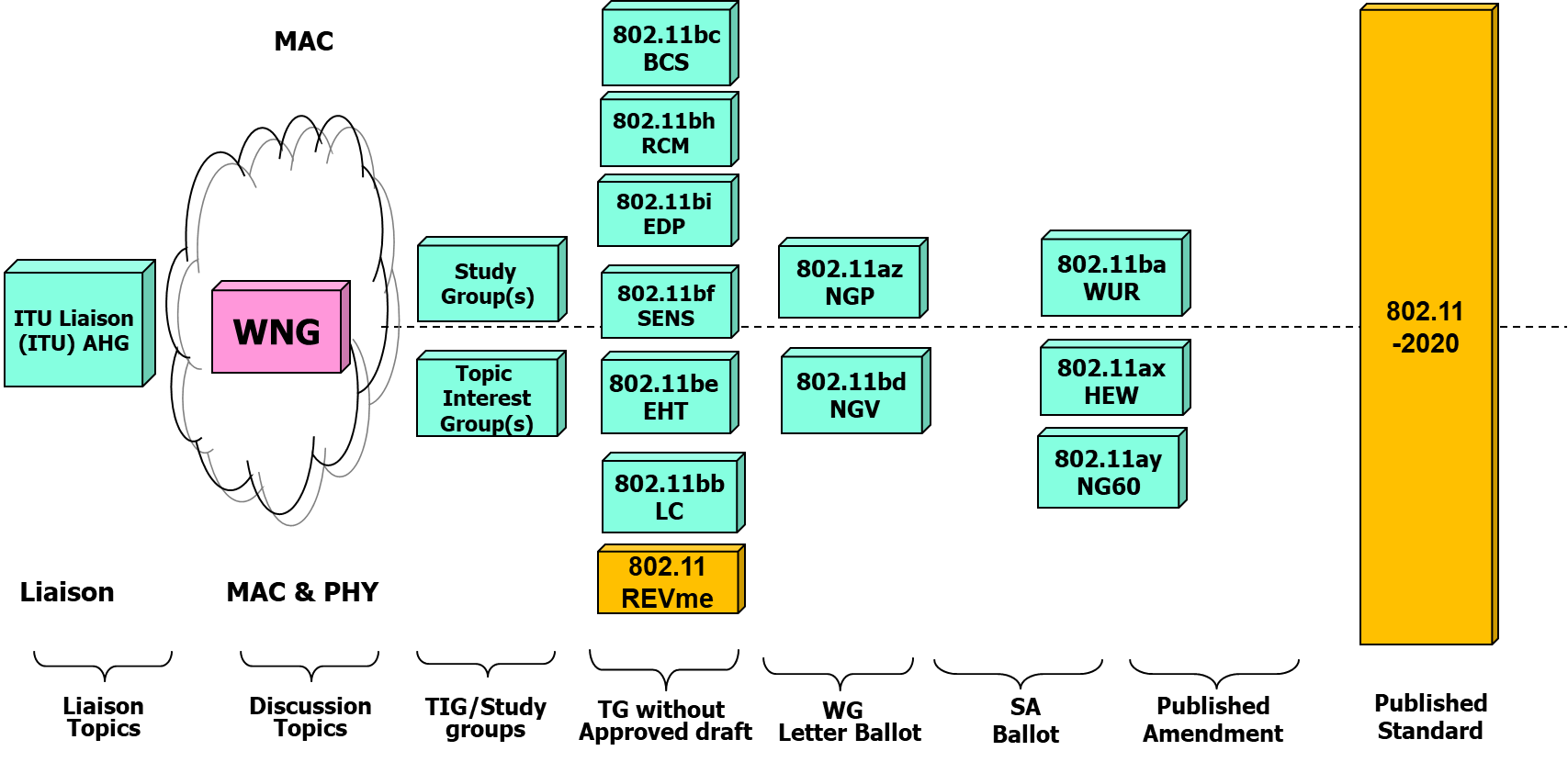
**Annex C : Minutes**

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 | 21-1497r0 |
| TGme | TG | 21-1518r0 |
| TGaz | TG | 21-1503r0 |
| TGbb | TG | 21-1519r1 |
| TGbc | TG | 21-1357r0 |
| TGbd | TG | 21-1544r0 |
| TGbe | TG | 21-1558r0 |
| TGbf | TG | 21-1567r3 |
| TGbh | TG | 21-1545r0 |
| TGbi | TG | 21-1551r0 |
| AANI | SC | 21-1312r0 |
| COEX | SC | 21-1639r0 |
| WNG | SC | 21-1505r0 |
| JTC 802 | SC | 21-1576r0 |
| ARC | SC | 21-1506r0 |
| ITU | AH | 21-1342r0 |
| PAR | SC | Did not meet |

**Annex D : Revisions and Standards Pipeline**

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**IEEE 802.11 Standards Pipeline**

End.