IEEE P802.11  
Wireless LANs

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| TGbe July to September 2021 teleconference minutes | | | | |
| Date: 2021-08-04 | | | | |
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|  |  |  |  |  |

Abstract

This document contains the minutes for July to September 2021 TGbe teleconferences.

Revisions:

* Rev0: First revision of the document.
* Rev1:
  + Includes minutes from 11th conf call, held on August 11 at 10:00 EDT
    - Minutes taken by Matthew Fischer

# 5th Conf. Call: July 21 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1262-02-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-in-july-to-september-2021.docx>

# 6th Conf. Call: July 22 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1262-02-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-in-july-to-september-2021.docx>

# 7th Conf. Call: July 26 (10:00–12:00 ET)

Split PHY and MAC.

* PHY: N/A at this time.
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1262-02-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-in-july-to-september-2021.docx>

# 8th Conf. Call: July 28 (10:00–12:00 ET)

1. The Chair, Alfred Asterjadhi (Qualcomm), calls the meeting to order at 10:02 ET. The Chair notifies that the agenda is in [1090r13](https://mentor.ieee.org/802.11/dcn/21/11-21-1090-13-00be-july-sept-tgbe-teleconference-agenda.docx).
2. IEEE 802 and 802.11 IPR policy and procedure
   1. Patent Policy: Ways to inform IEEE:
      * Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
      * Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
      * Speak up now and respond to this Call for Potentially Essential Patents. **Nobody speaks/writes up**.

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

* 1. The Chair reviews: Copyright Policy: Participants are advised that
     + IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) of the IEEE SA Standards Board Operations Manual;
     + Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy
  2. The Chair reviews: Patent, Participation, Copyright and policy related subclause: Please refer to *Patent And Procedures* in [1090r13](https://mentor.ieee.org/802.11/dcn/21/11-21-1090-13-00be-july-sept-tgbe-teleconference-agenda.docx).

1. Attendance reminder.

* Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
* Please record your attendance during the conference call by using the IMAT system:
  + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman ([dennis.sundman@ericsson.com](mailto:dennis.sundman@ericsson.com)) and Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
* Please ensure that the following information is listed correctly when joining the call: "[voter status] First Name Last Name (Affiliation)"
  + N/A at this time.

1. Agenda.

Discussion:

C: Can you remove 1247.

C: 1233 is r3.

Agenda approved with unanimous consent.

1. Technical submissions: CRs
   1. [1103r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1103-00-00be-cc36-cr-on-9-4-1-67a-d-d101-part1.doc) CR on 9.4.1.67a-d part1 Genadiy Tsodik [8C 15’]

Genadiy reviews the CIDs. Some live updates.

SP:

Do you agree to the resolution of the following CIDs as proposed in 1103r1?

* + - 4331, 4594, 4889, 4890, 4891, 4892, 5025, 5397.

Discussion: None.

Result: Supported with no objection from the group.

* 1. [1169r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1169-01-00be-cc36-cr-for-he-variant-user-info-field.docx) CR for HE Variant User Info Field Mengshi Hu [9C 15’]

Mengshi reviews the CIDs. Some live updates.

SP:

Do you agree to the resolution of the following CIDs as proposed in 1169r2?

* + - 4324, 4344, 4345, 4346, 7899, 7900, 7901, 7903.

Note: Changes in r2 are same as r1 except that the note to editor is replaced with instructions to editor and the shall not disappears from the proposed note.

Discussion: None.

Result: Straw poll supported with no objection from the group.

* 1. [1105r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1105-00-00be-cc36-cr-on-9-3-1-19-d101.doc) CR on 9.3.1.19 NDP Announcement frame form. Genadiy Tsodik [5C 20’]

Genediy reviews the CIDs. Some live updates.

* 1. [1233r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1233-00-00be-cc36-cr-on-9-3-1-22-1-1.docx) CC on 9.3.1.22.1.1 Lei Huang [6C 10’]

Lei reviews the CIDs. Some live updates.

SP: Do you agree to the resolution of the following CIDs as proposed in 1233r3?

* + - 4501, 4808, 5791, 6689, 6690, 6691.

Discussion: No discussion.

Result: Straw poll supported with no objection from the group.

1. Technical submissions.
   1. [1672r2](https://mentor.ieee.org/802.11/dcn/20/11-20-1672-02-00be-ul-beamforming-for-tb-ppdus.pptx) UL Beamforming for TB PPDUs Shimi Shilo [Q&A-15’]

Shimi summarizes the presentation.

Discussion:

C: What does the SNR in 16 correspond to in this figure?

A: These are simulations for UL MU-MIMO. These are not fixed SNR. But average SNR per STA is the same.

1. AoB: None.
2. Adjourned at 12:00.

# 11th Conf. Call: August 11 (10:00–12:00 ET)

1. The Chair, Alfred Asterjadhi (Qualcomm), introduces himself and calls the meeting to order at 10:00 ET.
   1. The Chair informs the attendees that the agenda for the meeting is found in [1090r17](https://mentor.ieee.org/802.11/dcn/21/11-21-1090-17-00be-july-sept-tgbe-teleconference-agenda.docx).
   2. The Chair notes that the secretary, Dennis Sundman, is not present at the meeting and therefore, for this meeting, minutes will be taken by Vice Chair Matthew Fischer (Broadcom)
      * Matthew Fischer indicates his presence and readiness to record minutes
2. IEEE 802 and 802.11 IPR policy and procedure
   1. Patent Policy: Ways to inform IEEE:
      * Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
      * Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
      * Speak up now and respond to this Call for Potentially Essential Patents.

Per these rules, the Chair verbally requests that:

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

No one responds.

* 1. The Chair reviews the Copyright Policy by stating that meeting Participants are advised that:
     + IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) of the IEEE SA Standards Board Operations Manual;
     + Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy
  2. The Chair reviews: Patent, Participation, Copyright and policy related subclause: Please refer to *Patent And Procedures* in [1090r17](https://mentor.ieee.org/802.11/dcn/21/11-21-1090-17-00be-july-sept-tgbe-teleconference-agenda.docx).

1. Attendance reminder.

* Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
* Please record your attendance during the conference call by using the IMAT system:
  + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman ([dennis.sundman@ericsson.com](mailto:dennis.sundman@ericsson.com)) and Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com)) and Matthew Fischer [matthew.fischer@broadcom.com](mailto:matthew.fischer@broadcom.com)
* Please ensure that the following information is listed correctly when joining the call: "[voter status] First Name Last Name (Affiliation)"
  + N/A at this time.

1. Agenda: (gray items removed, pink items added, from original agenda proposed in [1090r17](https://mentor.ieee.org/802.11/dcn/21/11-21-1090-17-00be-july-sept-tgbe-teleconference-agenda.docx))
   1. Motions: [1982r34](https://mentor.ieee.org/802.11/dcn/20/11-20-1982-34-00be-tgbe-motions-list-for-teleconferences-part-2.pptx)
   2. Technical Submissions**: CRs**
      * [1105r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1105-02-00be-cc36-cr-on-9-3-1-19-d101.doc) CC36 CR on 9.3.1.19-d101 (NDPAframe format) Genadiy Tsodik [SP-5C 15’]
      * [1059r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1059-00-00be-comment-resolution-for-cc37.docx) Comment Resolution for CC37 Sigurd Schelstraete [57C 40’]
      * [706r4](https://mentor.ieee.org/802.11/dcn/21/11-21-0706-04-00be-tgbe-coexistence-assessment-document.docx) TGbe Coexistence Assessment Document Sigurd Schelstraete [0C 15’]
      * 1281r0 cc36-cr-for-cids-in-clause-35-5-2 Zinan Lin [21C 25’]
      * [1243r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1243-00-00be-cc36-cr-for-cid-6841-6842-6843.docx) CR for CID 6841 6842 6843 Zinan Lin [3C 15’]
      * [1250r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1250-00-00be-d1-0-cr-for-section-35-5.docx) CR for Section 35.5 Wook Bong Lee [4C 15’]
      * [1237r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1237-00-00be-d1-0-cr-for-section-9-2-5-2-and-9-3-1-19.docx) CR for Section 9.2.5.2 and 9.3.1.19 Wook Bong Lee [32C 30’]
   3. Technical Submissions:
      * [1672r2](https://mentor.ieee.org/802.11/dcn/20/11-20-1672-02-00be-ul-beamforming-for-tb-ppdus.pptx) UL Beamforming for TB PPDUs Shimi Shilo [SP-10’]
   4. AoB:

Discussion:

C: Please remove the contributions from Wookbong (1250r0, 1237r0), as he is unable to attend

Agenda approved with unanimous consent.

1. Motions, see [1982r34](https://mentor.ieee.org/802.11/dcn/20/11-20-1982-34-00be-tgbe-motions-list-for-teleconferences-part-2.pptx)
   1. Motion 226
      * Chair describes the contents of the motion
      * Moved by Edward Au
      * Seconded by Abhishek Patel
      * Discussion
        + None
      * Vote
        + Chair asks for objection to approval by unanimous consent
        + No objection, motion is approved
   2. Motion 227
      * Chair describes the contents of the motion
      * Moved by Edward Au
      * Seconded by Rajat Pushkarna
      * Discussion
        + None
      * Vote
        + Chair asks for objection to approval by unanimous consent
        + No objection, motion is approved
   3. Motion 228
      * Chair describes the contents of the motion
      * Moved by Stephen McCann
      * Seconded by Bin Tian
      * Discussion
        + None
      * Vote
        + Chair asks for objection to approval by unanimous consent
        + No objection, motion is approved
   4. Motion 229
      * Chair describes the contents of the motion
      * Moved by Michael Montemurro
      * Seconded by Bin Tian
      * Discussion
        + None
      * Vote
        + Chair asks for objection to approval by unanimous consent
        + No objection, motion is approved
   5. Motion 230
      * Chair describes the contents of the motion
      * Moved by Edward Au
      * Seconded by Lei Huang
      * Discussion
        + None
      * Vote
        + Chair asks for objection to approval by unanimous consent
        + No objection, motion is approved
2. Technical submissions: CRs
3. [1105r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1105-04-00be-cc36-cr-on-9-3-1-19-d101.doc) CC36 CR on 9.3.1.19-d101 (NDPAframe format) Genadiy Tsodik

Presenter notes that r1 had been reviewed in a previous meeting. Presenter reviews changes from the previously presented version.

Discussion:

Q: this uses the last encoding value for the NDPA type, how does this allow for any future variants to be defined?

A: that’s a question for the group, this document is not changing that aspect

Q: all sounding FB in one TXOP, so token is not needed, could use token to indicate a different sounding purpose, e.g. EHT v future variants

A: you’re proposing a means to provide for future variants?

Q: Yes

Q: propose to remove VHT/HE Ranging in the first paragraph

A: agree

Changes based on comments create a revision r5

SP:

Do you agree to the resolution of the following CIDs as proposed in [1105r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1105-05-00be-cc36-cr-on-9-3-1-19-d101.doc)?

* + - 4146, 8262, 4148, 5083, 5084, 6005, 5787

Result: Supported with no objection from the group.

1. [1059r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1059-00-00be-comment-resolution-for-cc37.docx) Comment Resolution for CC37 Sigurd Schelstraete

These are comments on the Coexistence Assessment document

Presenter reviews the document

Document edited during the discussion to r1

Discussion:

No questions

SP:

Do you agree to the resolution of the following CIDs of CC37 as proposed in [1059r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1059-01-00be-comment-resolution-for-cc37.docx)?- Editorial: 6, 26, 27, 35, 38, 39, 51, 52, 53- Out of Scope: 10, 11, 12, 13, 14, 15, 16, 17, 18- References: 5, 19, 20, 21, 28, 31, 54, 55, 56- Naming: 29, 32, 34, 36, 37, 41, 42, 43, 44, 45, 47, 48, 49, 50- Remaining: 1, 2, 3, 4, 7, 8, 9, 22, 23, 24, 25, 30, 33, 40, 46, 57

Discussion on the straw poll?

None

Result: Straw poll supported with no objection from the group.

1. [1281r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1281-00-00be-cc36-cr-for-cids-in-clause-35-5-2.docx) cc36-cr-for-cids-in-clause-35-5-2 Zinan Lin

Presenter reviews the document

Document edited during the discussion to r1

Discussion:

SP deferred to allow time to review r1

1. [1289r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1289-00-00be-cc-36-cr-for-9-6-34-2.docx) cc-36-cr-for-9-6-34-2 Xiangxin Gu

Presenter reviews the document

Discussion:

None.

SP:

Do you agree to the resolution of the following CIDs as proposed in [1289r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1289-00-00be-cc-36-cr-for-9-6-34-2.docx)?

* + - 6078, 7744

Result: Supported with no objection from the group.

1. Technical submissions (not CID resolution)
   1. [1672r2](https://mentor.ieee.org/802.11/dcn/20/11-20-1672-02-00be-ul-beamforming-for-tb-ppdus.pptx) UL Beamforming for TB PPDUs Shimi Shilo

Presenter reviews the document

Topic: TXBF for UL Trigger based MU is difficult, proposal to make it simpler

Discussion:

None.

SP:

Do you support to include a protocol which enables beamforming for triggered PPDUs in 11be?

Note: this is a Rel 2 feature

Y/N/A = 41/23/22

Presenter requests that people with questions please communicate those to the presenter.

1. AoB:
   1. Zinan proposes running SP on [1281r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1281-01-00be-cc36-cr-for-cids-in-clause-35-5-2.docx)
      * Chair proposes a modification to the agenda to add a review of [1281r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1281-01-00be-cc36-cr-for-cids-in-clause-35-5-2.docx) and to run an SP based on that document
        + No objection to a modification to the agenda

Chair and presenter review [1281r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1281-01-00be-cc36-cr-for-cids-in-clause-35-5-2.docx)

SP:

Do you agree to the resolution of the following CIDs as proposed in [1281r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1281-01-00be-cc36-cr-for-cids-in-clause-35-5-2.docx)?

* + - 6838, 6839, 6840, 6841, 6842, 6843, 6844, 6845, 6846, 6847
    - 6848, 6849, 6850, 6851, 7923, 7924, 8364, 8365, 8366, 8367
    - 8368

Result: Supported with no objection from the group.

* 1. Chair again asks if there is any other business
     + None noted

1. Adjourned at 11:58.