IEEE P802.11  
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc Teleconference in March to May 2024 | | | | |
| Date: 2024-03-27 | | | | |
| Author(s): | | | | |
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| Liwen Chu | NXP |  |  |  |
|  |  |  |  |  |

Abstract

This document contains the minutes for the TGbe MAC ad hoc teleconferences in March to May 2024.

Revisions:

* Rev0: Added the minutes from the MAC ad hoc teleconferences held on March 27, April 10, and April 24.

# March 27 (10:00–12:00 ET)–MAC

* Call the meeting to order
* IEEE 802 and 802.11 IPR policy and procedure
  + **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

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. **Nobody speaks/writes up**.

* + **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" \l "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
    - **Copyright Policy was presented.**
  + **Patent, Participation, Copyright and policy related subclause:** Please refer to Patent And Procedures
* Attendance reminder.
  + Participation slide: [https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx](https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx" \t "_blank)
  + 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 Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
  + Please ensure that the following information is listed correctly when joining the call:
    - "[voter status] First Name Last Name (Affiliation)"

|  |  |
| --- | --- |
| Name | Affiliation |
| Ajami, Abdel Karim | Apple Inc. |
| Baek, SunHee | LG ELECTRONICS |
| baron, stephane | Canon Research Centre France |
| Bredewoud, Albert | Broadcom Corporation |
| Carney, William | Sony Group Corporation |
| Chaturvedi, Abhishek | Samsung Electronics |
| CHENG, yajun | Xiaomi Communications Co., Ltd. |
| Chung, Chulho | SAMSUNG |
| Coffey, John | Realtek Semiconductor Corp. |
| Das, Subir | Peraton Labs |
| Gu, Xiangxin | Spreadtrum Communications (Shanghai) Co., Ltd. |
| GUIGNARD, Romain | Canon Research Centre France |
| Gupta, Binita | Cisco Systems, Inc. |
| Hasabelnaby, Mahmoud | Huawei Technologies Canada; Huawei Technologies Co., Ltd |
| Huang, Po-Kai | Intel |
| Jang, Insun | LG ELECTRONICS |
| Kakani, Naveen | Qualcomm Incorporated |
| Kim, Sang Gook | LG ELECTRONICS |
| Kipness, Michael | IEEE Standards Association (IEEE SA) |
| Klein, Arik | Huawei Technologies Co., Ltd |
| Levy, Joseph | InterDigital, Inc. |
| Li, Weiyi | Spreadtrum Communication USA, Inc |
| Lorgeoux, Mikael | Canon Research Centre France |
| Lou, Hanqing | InterDigital, Inc. |
| Lu, kaiying | MediaTek Inc. |
| Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| Mohanty, Shantidev | Self Employed |
| Montemurro, Michael | Huawei Technologies Co., Ltd |
| Naik, Gaurang | Qualcomm Technologies, Inc |
| Nezou, Patrice | Canon Research Centre France |
| Ng, Boon Loong | SAMSUNG ELECTRONICS |
| Patil, Abhishek | Qualcomm Incorporated |
| Patwardhan, Gaurav | Hewlett Packard Enterprise |
| Petrick, Albert | InterDigital, Inc. |
| Quan, Yingqiao | Spreadtrum |
| Ryu, Kiseon | NXP Semiconductors |
| Sevin, Julien | Canon Research Centre France |
| Sun, Bo | Sanechips |
| Tchoubineh, Farhad | Self-employed |
| Wang, Qi | Apple Inc. |
| Xia, Qing | Sony Corporation |
| Yang, Jay | ZTE Corporation |
| Yee, James | MediaTek Inc. |
| Zhao, Yue | Huawei Technologies Co., Ltd |

* Agenda
  + CR Submissions:
    - [0324r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0324-03-00be-cr-for-802-11be-isb.docx) CR for 802.11be ISB Laurent Cariou [30C]
    - [0335r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0335-00-00be-isab-cids-on-p2p.docx) ISAB CIDs on P2P Rubayet Shafin [20C]
    - [0312r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0312-01-00be-d5-0-cr-for-cid-22055-22192.docx) D5.0 CR for CID-22055 & 22192 Kaiying Lu [3C]
    - [0366r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0366-00-00be-proposed-resolution-to-11be-initial-sa-ballot-cid-on-emlsr-co-ex-indication.docx) Prop. Res. to 11be ISAB CID on EMLSR co-ex ind. Qi Wang [2C]
    - [0345r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0345-01-00be-proposed-resolution-for-cid-22320-and-22321-on-initial-sa-ballot-on-d5-0.docx) Prop. Res. for CID 22320 and 22321 on ISAB on D5.0 Liuming Lu [2C]
    - [0341r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0341-00-00be-sa-ballot-cr-for-miscellaneous-cids.docx) SA Ballot CR for Miscellaneous CIDs Ming Gan [1C]
    - [0261r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0261-00-00be-sa-ballot-cr-for-ttlm-element.docx) SA ballot CR for TTLM element Mikael Lorgeoux[1C]
  + Discussion: None.
  + The agenda is approved with unanimous consent.
* **CR Submissions:**
  + [0324r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0324-03-00be-cr-for-802-11be-isb.docx) CR for 802.11be ISB Laurent Cariou

C: “subelement” will not be used according to TGme

C: CID 22099, since the BTM request is originated from the MLD, I like the proposed text.

C: CID 22045, it has been motioned regarding the setting of the Link Removal Imminent field, you can use the reference of that doc. in the resolution.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/0324r4 and incorporate the text changes into the latest TGbe draft?

         22105 22280 22031 22071 22070 22330 22069 22068 22262 22353 22015 22267 22329 22100 22054 22053 22052 22051 22050 22049 22048 22047 22046 22045 22044

Discussion: None.

Result: No objection.

* + [0335r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0335-00-00be-isab-cids-on-p2p.docx) ISAB CIDs on P2P Rubayet Shafin

C: for note3, this is baseline behavior, you can reject this CID.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/0335r2 and incorporate the text changes into the latest TGbe draft?

         22110 22138 22140 22117 22118 22132 22133 22134 22137 22129 22130 22136 22139 22135

Discussion: None.

Result: No objection.

Note- the revision number for the original SP text is 0335r1. Rubayet revised the document by adding CID tag. Nobody objects the changing of the revision number.

* + [0312r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0312-01-00be-d5-0-cr-for-cid-22055-22192.docx) D5.0 CR for CID-22055 & 22192 Kaiying Lu

C: could you remove “by …”, it’s quite difficult to follow.

C: the NSTR MLD property is set by the MLD rather than the STA.

C: this comment does not point out any technical issue, the original text looks good.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/312r2 and incorporate the text changes into the latest TGbe draft?

        22192, 22055, 22074

Discussion: None.

Result: No objection.

* + [0366r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0366-00-00be-proposed-resolution-to-11be-initial-sa-ballot-cid-on-emlsr-co-ex-indication.docx) Prop. Res. to 11be ISAB CID on EMLSR co-ex ind. Qi Wang

Discussion: None.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/0366r0 and incorporate the text changes into the latest TGbe draft?

         22252, 22253, 22259

Discussion: None.

Result: No objection.

* + [0345r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0345-01-00be-proposed-resolution-for-cid-22320-and-22321-on-initial-sa-ballot-on-d5-0.docx) Prop. Res. for CID 22320 and 22321 on ISAB on D5.0 Liuming Lu

C: there’s no protocol about ESS transition. Even if we change the definition, we don’t need to define any protocol for MLD ESS transition.

C: you need to get rid of the hyphen between multicast and the group.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/0345r3 and incorporate the text changes into the latest TGbe draft?

         22320, 22321

Discussion: None.

Result: No objection.

* + [0261r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0261-00-00be-sa-ballot-cr-for-ttlm-element.docx) SA ballot CR for TTLM element Mikael Lorgeoux

C: how can we interpreate the field with slash.

A: it depends on the frame type.

C: there are devices in the field that already parses the element as it was.

C: request to defer the SP, need more time to digest.

SP deferred.

* AoB: None
* Adjourned at 11:53

**April 10, 2024 (10:00 – 12:00 ET) (TGbe MAC ad hoc)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:00 ET. The Chair introduces himself and the Secretary. Secretary (Jeongki) is not on the call. Alfred will be taking the minutes. The chair announced the Alfred will be chair in 1 hour.
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * 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 Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))

|  |  |
| --- | --- |
| Bredewoud, Albert | Broadcom Corporation |
| Carney, William | Sony Group Corporation |
| CHENG, yajun | Xiaomi Communications Co., Ltd. |
| Chisci, Giovanni | Qualcomm Technologies, Inc |
| Chng, Baw | BAWMAN LLC |
| Coffey, John | Realtek Semiconductor Corp. |
| Das, Subir | Peraton Labs |
| Fan, Shuang | Sanechips Technology Co., Ltd. |
| Fang, Yonggang | Mediatek |
| Guo, Yuchen | Huawei Technologies Co., Ltd |
| Gupta, Binita | Cisco Systems, Inc. |
| Huang, Po-Kai | Intel |
| Jang, Insun | LG ELECTRONICS |
| Kandala, Srinivas | SAMSUNG |
| Kim, Geon Hwan | LG ELECTRONICS |
| Klein, Arik | Huawei Technologies Co., Ltd |
| Lu, kaiying | MediaTek Inc. |
| Montemurro, Michael | Huawei Technologies Co., Ltd |
| Palayur, Saju | Maxlinear Inc |
| Patil, Abhishek | Qualcomm Incorporated |
| Quan, Yingqiao | Spreadtrum |
| Ratnam, Vishnu | Samsung Research America |
| Rosdahl, Jon | Qualcomm Technologies, Inc. |
| Ryu, Kiseon | NXP Semiconductors |
| Sun, Bo | Sanechips |
| Wang, Qi | Apple Inc. |
| Wullert, John | Peraton Labs |
| Yee, James | MediaTek Inc. |
| Zhao, Yue | Huawei Technologies Co., Ltd |
| Zhou, Lei | H3C Technologies Co., Limited |

1. The Chair asked whether there is comment about agenda in 11-24/0632r4. The agenda was approved.

**Submissions**

1. [0350r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0350-00-00be-cr-for-cids-on-scs.docx) CR for CIDs on SCS Dibakar Das [2C]

C: Do you want to SP today? Or Just discussion.

A: Do we have any guide line?

A: We are going to finalize by May 8. Please have offline discussion via email reflector.

C: Higher flow can be indicated in the reponse frame by AP’s suggestion.

A: This is just recommendation.

C: Yes, this is just recommendation. I don’t see any reason of concern on this resolution. If there is no recommendation, AP can just reject the request.

C: Why STA choose the wrong information in SCS request? STA has the knowledgement already.

C: What do you mean it is allowance, not a recommendation?

A: may means the allowance.

C: I don’t see any following text related to the rejection.

22024 is deferred

**SP:** Do you agree to resolve the following CIDs listed in 11-24/350r0 and incorporate the text changes into the latest TGbe draft?

**22005**

No objection

1. [0325r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0325-00-00be-cr-for-miscellaneous-cids-on-mlo.docx) CR for miscellaneous CIDs on MLO Giovanni Chisci [5C]

C: Complete profile is only for Basic Multi-link element? What about reconfiguraiton? It also contains the complete profile.

C: Can you defer? Whether it can include the reconfiguration element carrying the complete profile. I can look at it.

C: 22312 is not limited to tables of 9.3.3. Is it only one management or all management frames?

C: 9.3.3 is all management frames

C: adding 9.3.3 is correct.

C: in addition to the ones... text is poor text..

22312 is deferred

**SP:** Do you agree to resolve the following CIDs listed in 11-24/325r0 and incorporate the text changes into the latest TGbe draft?

22310, 22311, 22307

No objection

1. [0353r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0353-00-00be-d5-0-cr-for-ml-reconfiguration-part-2.docx) D5.0 CR for ML Reconfiguration part 2 Binita Gupta [4C]

C: How you can make the insertion for the first CID 22083? Reconfiguration multi-link element is transmitted in a frame. Which frame contains the element?

A: There are several places for the text. I don’t see any technical issue of the current text.

C: The last CID 22240. This is SA ballot. You can mention the location page or line.

A: all occurances in 35.3.6.

C: Global change makes confusions. It should be revised with location.

C: I agree with Mike suggestion. That’s very minor.

C: If you give the suggest text, it can cover Mike’s comment.

C: For the last CID, I think we can improve this change.

C: Mike’s comments are better for the first 3 CIDs.

SP is deferred.

1. [0326r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0326-00-00be-sa1-resolution-for-cids-assigned-to-abhi.docx) SA1: Resolution for CIDs assigned to Abhi Abhishek Patil [7C]

C: I’m ok with it generally. Is it operation of MLD? Is it encrypted?

C: This is not complete. It may increase the comments.

The first 4 CIDs are deferred

C: What is the frequency gap?

C: You copy the rejection reason from previous comment. I don’t think they are related.

C: The rejection is not correct. The comment is valid. We can address it.

A:Ok, I can defer it.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/326r2 and incorporate the text changes into the latest TGbe draft?

22310

No objection

1. 0334r0 ISAB CIDs on TWT Rubayet Shafin [23C]

**SP:** Do you agree to resolve the following CIDs listed in 11-24/334r1 and incorporate the text changes into the latest TGbe draft?

22111 22112 22113 22119 22120 22121 22122 22123 22124 22125 22126 22131 22142 22143 22144 22145 2214622147 22148 22149 22150 22151 22190

No objection

* Adjourned at 12:00

**April 24, 2024 (10:00 – 12:00 ET) (TGbe MAC ad hoc)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:00 ET. The Chair introduces himself and the Secretary.
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
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   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-24/0632r11. The agenda was approved.

**Submissions**

1. [261r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0261-00-00be-sa-ballot-cr-for-ttlm-element.docx) SA ballot CR for TTLM element Mikael Lorgeoux [1C SP]

C: Already closed. If it’s proposed 1 or 2 years ago, it’s ok. But it’s too late.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/261r1 and incorporate the text changes into the latest TGbe draft?

22352

9Y, 23N, 3A

1. [364r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0364-01-00be-sa1-resolution-for-cids-assigned-to-sanket.docx) SA1: Resolution for CIDs assigned to Sanket Sanket Kalamkar [1C SP]

C: Not sure wording is clear? Links in the same band? Channels in the different band?

C: or different channels within same band?

C: Abhi’s suggestion is clear. Communication over links using channels on different band or same band.

C: different channels on ... is better.

C:

**SP:** Do you agree to resolve the following CIDs listed in 11-24/364r2 and incorporate the text changes into the latest TGbe draft?

22206

No objection

1. [540r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0540-00-00be-proposed-resolution-for-cid-22367.docx) Proposed resolution for CID 22367 Edward Au [1C]

C: I prefer to reject the comment.

C: I’m fine with adding non-AP in the text. The first rejection reason is ok also.

**SP:** Do you agree to resolve the following CIDs listed in 11-24/540r1 and incorporate the text changes into the latest TGbe draft?

22367

No objection

1. [703r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0703-00-00be-initsa-cr-for-negotiation-of-ttlm.docx) SB1 CR for Negotiation of TTLM Edward Au [5C]

**SP:** Do you agree to resolve the following CIDs listed in 11-24/703r0 and incorporate the text changes into the latest TGbe draft?

• 22066, 22067, 22266, 22277, 22328

No objection

1. [353r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0353-01-00be-d5-0-cr-for-ml-reconfiguration-part-2.docx) D5.0 CR for ML Reconfiguration part 2 Binita Gupta [9C]

C: do you need new status code? It’s obvious.

C: if this is last link, this can not be deleted. This must be the reason. Other reason still there.

A: This is clear for the STA.

C: This is only reason. Other is there may be other reason. I don’t want to introduce many rejection reasons.

C: For deleting, change to ”from”.

SP: Do you agree to resolve the following CIDs listed in 11-24/353r3 and incorporate the text changes into the latest TGbe draft?

22026, 22082, 22085, 22086

22083, 22084, 22087, 22240

No objection

1. [699r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0699-00-00be-sb1-cr-for-cids-22000-and-22001.docx) SB1 CR for CIDs 22000 and 22001 Binita Gupta [2C]

C: Reassociation and association response are not protected.

C: I don’t want to have a big change in SA ballot.

C: There is a bit to allow the association or not. AP can reject the request of association.

A: This is more dynamic condition and AP provides the suggestions.

C: We already have multiple operations for this.

C: AP can help STA associatin based on the information.

A: If AP overloaded and other AP in the same MLD is available, the AP can make the suggestion of it.

1. [371r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0371-00-00be-d5-0-cr-for-cids-on-r-twt-part-1.docx) D5.0 CR for CIDs on R-TWT-Part 1 Kumail Haider [11C]

C: MIB parameter is internal. If you don’t want to repeat it, you can delete them.

C: You can use the capabilities instead of MIB variable.

22188, 22300, 22297 are deferred.

C: You need to define what is the predictable delay. I disagree with this resolution and rejection reason on 22207.

A: I can work with you offline.

C: You have to address the comment in the resolution.

* Adjourned at 12:00