IEEE P802.11  
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc teleconferences in May and July 2021 | | | | |
| Date: 2021-05-19 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
| Jeongki Kim | Self |  |  |  |
|  |  |  |  |  |

Abstract

This document contains the meeting minutes for the TGbe MAC ad hoc teleconferences held in May 2021 and July 2021.

Revisions:

* Rev0: Added the minutes from the telephone conferences held on May 19.
* Rev1: Added the minutes from the telephone conferences held on May 20 and attendance list of May 19.

**Wednesday 19 May 2021, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Self)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Self) calls the meeting to order at 10:02am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
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. 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))
5. The Chair asked whether there is comment about agenda in 11-21/785r4. Several changes are made per the comment. The modified agenda was approved.

**Recorded attendance through Imat and e-mail:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 5/19 | Abushattal, Abdelrahman | Istanbul Medipol university ;Vestel |
| TGbe (MAC) | 5/19 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 5/19 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Banerjea, Raja | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 5/19 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 5/19 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 5/19 | CHAN, YEE | Facebook |
| TGbe (MAC) | 5/19 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 5/19 | CHUN, JINYOUNG | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Das, Subir | Perspecta Labs Inc |
| TGbe (MAC) | 5/19 | Derham, Thomas | Broadcom Corporation |
| TGbe (MAC) | 5/19 | Dong, mingjie | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 5/19 | Erceg, Vinko | Broadcom Corporation |
| TGbe (MAC) | 5/19 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 5/19 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 5/19 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 5/19 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 5/19 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 5/19 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 5/19 | Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| TGbe (MAC) | 5/19 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 5/19 | Ibrahim, Ahmed | [NV] Ahmed Ibrahim, Samsung Research America |
| TGbe (MAC) | 5/19 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 5/19 | JONES, JEFFRUM | Qorvo |
| TGbe (MAC) | 5/19 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | kamath, Manoj | Broadcom Corporation |
| TGbe (MAC) | 5/19 | Kandala, Srinivas | SAMSUNG |
| TGbe (MAC) | 5/19 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 5/19 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 5/19 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Klimakov, Andrey | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 5/19 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 5/19 | Kwon, Young Hoon | NXP Semiconductors |
| TGbe (MAC) | 5/19 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 5/19 | Leng, Shiyang | Samsung Research America |
| TGbe (MAC) | 5/19 | Levitsky, Ilya | IITP RAS |
| TGbe (MAC) | 5/19 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 5/19 | Li, Yiqing | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Liu, Yong | Apple, Inc. |
| TGbe (MAC) | 5/19 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 5/19 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 5/19 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 5/19 | LU, Yuxin | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Lumbatis, Kurt | CommScope, Inc. |
| TGbe (MAC) | 5/19 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 5/19 | Max, Sebastian | Ericsson AB |
| TGbe (MAC) | 5/19 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Montreuil, Leo | Broadcom Corporation |
| TGbe (MAC) | 5/19 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 5/19 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 5/19 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 5/19 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 5/19 | Park, Minyoung | Intel Corporation |
| TGbe (MAC) | 5/19 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 5/19 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 5/19 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 5/19 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 5/19 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 5/19 | Roy, Richard | self |
| TGbe (MAC) | 5/19 | Salman, Hanadi | Istanbul Medipol University; VESTEL |
| TGbe (MAC) | 5/19 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 5/19 | Stanley, Dorothy | Hewlett Packard Enterprise |
| TGbe (MAC) | 5/19 | Sun, Bo | ZTE Corporation |
| TGbe (MAC) | 5/19 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 5/19 | Tsodik, Genadiy | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Verma, Sindhu | Broadcom Corporation |
| TGbe (MAC) | 5/19 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 5/19 | Wang, Huizhao | Quantenna Communications, Inc. |
| TGbe (MAC) | 5/19 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 5/19 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 5/19 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 5/19 | yi, yongjiang | Futurewei Technologies |
| TGbe (MAC) | 5/19 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 5/19 | Zhou, Yifan | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 5/19 | Zuo, Xin | Tencent |
| TGbe (MAC) | 5/19 | Rubayet Shafin | Samsung Research America |

**Submissions**

1. [80r7](https://mentor.ieee.org/802.11/dcn/21/11-21-0080-07-00be-twt-for-mld.docx) TWT for MLD Ming Gan [SP 10’]

Ming goes through the changes of the new version. Several questions are raised.

Discussion:

C: why same link bitmap in TWT request and response?

A: the TWT negotiation just negotiates the start time etc for simplifing the procedure.

C: link ID bitmap is new. How link ID bitmap is established?

A: link ID bitmap is not new. Examples about how to use it exist in the document.

C: the figure should clarify that the TWT agreements in different links should be indepent and link specific.

A: agree.

C: a clean version should be uploaded.

A: will upload a clean version.

SP:

* Do you agree to incorporate the proposed changes in 11-21/80r8 to the latest TGbe draft?

60Y, 14N, 32A.

1. [462r9](https://mentor.ieee.org/802.11/dcn/21/11-21-0462-09-00be-pdt-mac-restricted-twt-tbds-crs-part1.docx) PDT-MAC-Restricted-TWT-TBDs-CRs-Part1 Chunyu Hu [SP 10’]

Chunyu announced no changes since the last meeting.

SP

**Do you support to incorporate the proposed draft text in this document 11-21/462r9, to the latest TGbe Draft?**

No objection

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1. 514r9 CC34 Comment Resolution for Sync PPDU start time Dmitry Akhmetov [SP]

Dmity goes through the changes of the new version

Discussion:

C: Please highlight the changes.

A: the Tx time difference of 4us instead of slot time is added.

C: P14, bullet and number exist. Editor may be confused.

A: I can remove the dish.

C: this may create higher collision.

C: If you go with 4 us, collision may happen.

A: PIFS recovery already has same issue. This should be fine.

SP

Do you support to incorporate the changes proposed by the following CIDs in 11/0514r10:1439, 1501, 1502, 1509, 1510, 1511, 1512, 1514, 1757, 1772, 1797, 2211, 2142, 2434, 2435, 2718, 2740, 2741, 3141, 3142, 3143, 3145, 3205, 3323, 3399, 1507, 1703, 3398.

53Y, 4N, 41A

1. [696r1](https://mentor.ieee.org/802.11/dcn/21/11-21-0696-00-00be-pdt-mac-spec-text-for-motion-150-sp-372.docx) PDT-MAC-spec-text-for-motion-150\_SP-372 Abhishek Patil [15’]

Discussion:

C: AP of AP MLD will support legacy STAs. The legacy fragmentation should be supported in this case.

C: Why is the baseline feature disallowed?

A: fragmentation is not good in MLD.

C: it is better to provide simulation result.

C: change ”fragmentation” to ”non-dynamic fragmentation”.

A: ok.

SP

**Do you support to incorporate the proposed changes in 11-21/696r2, to the latest TGbe draft?**

65Y, 9N, 31A

1. [228r1](https://mentor.ieee.org/802.11/dcn/21/11-21-0228-01-00be-legacy-addressing-in-mlo.pptx) Legacy Addressing in MLO Rojan Chitrakar [30’

The auther goes through the slides that discussed the MLO addressing issues from a legacy STA’s perspectives.

Discussion:

C: the affiliated AP does the proxy for the legacy STAs. B1 change may have some issue and need to check further.

A: I use B0.

C: It is even worse.

C: I agree that the affiliated AP does the proxy for the legacy STAs. It is not clear that how ARP/PARP works.

A: AP MLD will be the bridge.

The SP was deferred

1. [240r6](https://mentor.ieee.org/802.11/dcn/21/11-21-0240-06-00be-cc34-resolution-for-cids-related-to-tdls-handling.docx) CC34 resolution for CIDs related to TDLS handling Abhishek Patil [30’]

The author goes through the document.

The SP was deferred

The chair asked whether there are any other businesses before adjourning the meeting. No response was received.

The teleconference was adjourned at 12:00pm

**Thursday 20 May 2021, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Self)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Self) calls the meeting to order at 10:09am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
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. 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))
5. The Chair asked whether there is comment about agenda in 11-21/785r4. Several changes are made per the comment. The modified agenda was approved.

**Recorded attendance through Imat and e-mail:**

**Submissions**

1. [481r4](https://mentor.ieee.org/802.11/dcn/21/11-21-0481-04-00be-resolutions-for-cc34-cids-for-channel-switching-quieting.docx) Res. for CC34 CIDs 4 channel switching quieting Laurent Cariou [SP-10’]

Laurent goes through the changes of the new version. Several questions are raised about Quiet Count field. The clarification is to follow baseline. The answer from TG chair about CID list of SP are that the CIDs addressed by the document will be internally recorded.

SP:

* Do you agree with the proposed changes in doc 481r5 corresponding to CIDs:2324 2600 1693 3254 1073 1074 1203 1428 1429 1430 1431 1658 1694 1754 2191 2197 2749 2874 2875 2911 2912 3320

No objection.

1. [340r6](https://mentor.ieee.org/802.11/dcn/21/11-21-0340-06-00be-cr-for-cid-1977.docx) CR for CID 1977 Dibakar Das [SP-10’]

The author goes through the changes of the new version.

C: The relationship between the Capability and the related baseline capabilty can be addressed in the future

A: ok

C: why do you add the new status code?

A: the code is about TSPEC.

C: do you mean AP can suggest TSPEC?

A: yes.

C: question about the support bit in MLD level. The text shows the feature is link level.

A: no, it is in MLD level.

SP was deferred.

1. [552r5](https://mentor.ieee.org/802.11/dcn/21/11-21-0552-05-00be-cr-txop-return-for-triggered-su.docx) CR TXOP Return for Triggered SU Yunbo Li [SP-10’]

The author goes through the changes of the new version.

C: The TXOP early termination for P2P case may have some issue.

A: The termination of P2P has no issue. STA notifies the termination.

C: The termination signaling should be defined in R2. This can make the procedure simple. We can define flexible solution in R2.

A: defining this in R2 may create inter-op issue.

C: CAS control in 11ax has signaling for various functionalities.

C: Do you think to use opposite value of TXOP Sharing Termination?

The author has some audio issues. The chair asks the author to do offline discussion.

1. [240r6](https://mentor.ieee.org/802.11/dcn/21/11-21-0240-06-00be-cc34-resolution-for-cids-related-to-tdls-handling.docx) CC34 resolution for CIDs related to TDLS handling Abhishek Patil [Q&A 10’]

The author makes the summary of TDLS with single link where at least one side is non-AP MLD.

C: generally ok. The issue is in security part. The TPK handshake should include AP MLD when both sides are non-AP MLD. I provide the editor comment in the chat window.

A: Would like to hear other member’s opinion.

C: the value of From/To DS in TDLS Discovery Response frame seems not right.

A: agree and change them from 1 to 0.

C: one solution could be AP MLD handle the situation where non-AP MLD is TDLS peer.

A: the TDLS setup is data frame. With the method proposed in the document, the AP MLD’s processing is simpler.

There are several people in the queue while there is not time for them to ask questions. The chair asked the author to do offline discussion.

1. [255r5](https://mentor.ieee.org/802.11/dcn/21/11-21-0255-05-00be-cc34-resolution-for-cids-related-to-mbssid.docx) CC34 resolution for CIDs related to MBSSID Abhishek Patil [30’]

The author goes through the changes.

C: the multiple BSSID informaiton will be in RNR. Right?

A: RNR will not include the information of multiple BSSID number. Can do offline discussion about it.

SP:

Do you support the resolutions proposed to the following CIDs in doc 11-21/0255r6 and the changes proposed to address the issues described in discussion items B & C?

1096, 2275, 1095, 2292, 2540, 1819

No objection

1. [498r1](https://mentor.ieee.org/802.11/dcn/21/11-21-0498-01-00be-cr-for-cids-related-to-str-operation.docx) CR for CIDs related to STR Operation Insun Jang [30’]

The author goes through the changes.

C: the STA/AP in STR definition should be affiliated MLD.

A: agree.

C: There is another document related to STR definition. You can harmonize your diefinition with that document.

C: change STR defition to ”STR is not NSTR”.

A: ok will check it.

There are some debate about whether baseline allows a definition to refer to another definition. The conclusion is that the baseline allows it.

There are some debate about ”except”. The chair asked the ppeople to do offline discussion about it.

The chair asked whether there are any other businesses before adjourning the meeting. No response was received.

The teleconference was adjourned at 12:00pm

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