IEEE P802.11  
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc teleconferences in Jan and March 2022 | | | | |
| Date: 2021-01-21 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
| Jeongki Kim | Ofinno |  |  |  |
|  |  |  |  |  |

Abstract

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

Revisions:

* Rev0: Added the minutes from the telephone conferences held on January 26, January 27,

**Wednesday 26 January 2021, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:15am 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 modified agenda was approved (revision changes).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 1/26 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 1/26 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 1/26 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 1/26 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 1/26 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 1/26 | Chung, Chulho | SAMSUNG |
| TGbe (MAC) | 1/26 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 1/26 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 1/26 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 1/26 | Ghosh, Chittabrata | Facebook, Inc. |
| TGbe (MAC) | 1/26 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 1/26 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 1/26 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 1/26 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 1/26 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 1/26 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 1/26 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 1/26 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 1/26 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 1/26 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 1/26 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 1/26 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 1/26 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/26 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 1/26 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 1/26 | Li, Yiqing | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/26 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 1/26 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 1/26 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 1/26 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 1/26 | Martinez Vazquez, Marcos | MaxLinear Corp; MAXLINEAR INC |
| TGbe (MAC) | 1/26 | Montreuil, Leo | Broadcom Corporation |
| TGbe (MAC) | 1/26 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 1/26 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 1/26 | Orlando, Christian | IEEE STAFF |
| TGbe (MAC) | 1/26 | Ozbakis, Basak | VESTEL |
| TGbe (MAC) | 1/26 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 1/26 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 1/26 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 1/26 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 1/26 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 1/26 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 1/26 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 1/26 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 1/26 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 1/26 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Thompson, Tom | IEEE STAFF |
| TGbe (MAC) | 1/26 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 1/26 | Verenzuela, Daniel | Sony Corporation |
| TGbe (MAC) | 1/26 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 1/26 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 1/26 | Wang, Huizhao | Quantenna Communications, Inc. |
| TGbe (MAC) | 1/26 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 1/26 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 1/26 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 1/26 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 1/26 | Yang, Jay | Nokia |
| TGbe (MAC) | 1/26 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 1/26 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 1/26 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 1/26 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 1/26 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1980r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1980-01-00be-cc36-cr-for-critical-update.docx) CR for critical update Ming Gan [26C 15’]

Discussion:

C: Critical Update Flag is just used for BSS Parameters Change Count change. Why do you make the meaning of it broader?

A: The link ID change, e.g. adding the AP back, should be coverred.

C: Adding AP is addressed by other field.

C: Why do need the indication of reporting AP’s change count?

A: 9-1002k is for reported AP.

C: the adding of BSS Parameters Change Count in association response create confusion.

A: the beacon that includes the informaiton may be missing.

1. [2020r1](https://mentor.ieee.org/802.11/dcn/21/11-21-2020-00-00be-cc36-cr-for-nsep-comments.docx) CC36\_CR\_for\_NSEP\_Comments Subir Das [22C 20’]

Discussion:

C: 6039 for QMF, the comment resolution should mention the futrue work. Please provide technical reason.

C: please use there is no consensus as the reason to reject the comment.

C: the reason could be ”not enough details have been provided by the commenter to resolve the comment.” .

C: why are AP MLD and non-AP MLD used instead of MLD?

A: EPCS MLD is not defined. However EPCS AP MLD and EPCS non-AP MLD are defined.

1. [1902r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1902-00-00be-cc36-cr-for-rtwt-low-lat-differentiation.docx) CR for rTWT low-lat differentiation Duncan Ho [18C 25’]

Discussion:

C: 6511. The comment is not addressed correctly by the resolution. Please defer it.

A: ok.

C: the AP has no way to make the decision based on the traafic chracteristics for accepting Rtwt joining request since the different traffic streams have the same TID.

A: the assumption of mxing traffic is not true.

C: Agree with the ”A”.

1. [1706r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1706-01-00be-cr-for-cids-related-to-emlsr-beacon-transmission-and-reception.docx) CR for CIDs related to EMLSR Beacon Tx and Rx Gaurang Naik [3C 10’]

There is no response to chair’s request for other business. The meeting is adjorned at 12:00pm.

**Thursday 27 January 2021, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:15am 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.
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5. The modified agenda was approved (revision changes, reordering, document deleting etc.).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 1/27 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | B, Hari Ram | NXP Semiconductors |
| TGbe (MAC) | 1/27 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 1/27 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 1/27 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 1/27 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 1/27 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 1/27 | Chiang, James | MediaTek Inc. |
| TGbe (MAC) | 1/27 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 1/27 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 1/27 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 1/27 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 1/27 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 1/27 | Gan, Ming | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/27 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 1/27 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 1/27 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 1/27 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 1/27 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 1/27 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 1/27 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 1/27 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 1/27 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 1/27 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 1/27 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 1/27 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/27 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 1/27 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 1/27 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 1/27 | Levitsky, Ilya | IITP RAS |
| TGbe (MAC) | 1/27 | Loginov, Vyacheslav | IITP RAS |
| TGbe (MAC) | 1/27 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 1/27 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 1/27 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/27 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 1/27 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 1/27 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 1/27 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 1/27 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 1/27 | Ozbakis, Basak | VESTEL |
| TGbe (MAC) | 1/27 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 1/27 | Rai, Kapil | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 1/27 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 1/27 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 1/27 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 1/27 | Strauch, Paul | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 1/27 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 1/27 | Vermani, Sameer | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 1/27 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 1/27 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 1/27 | Yamada, Ryota | SHARP CORPORATION |
| TGbe (MAC) | 1/27 | Yang, Jay | Nokia |
| TGbe (MAC) | 1/27 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 1/27 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 1/27 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 1/27 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 1/27 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 1/27 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1980r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1980-01-00be-cc36-cr-for-critical-update.docx) CR for critical update Ming Gan [26C SP-5’]

SP: Do you support to accept the resolution in 11-21/1980r4 for hte following CIDs?

4063 4453 4454 4455 4456 4457 4458 4459 4460 5073 5217 5352 5689 5755 5756 6255 6256 6294 6295 6296 6297 6456 6763 7460

No Objection

1. [1562r11](https://mentor.ieee.org/802.11/dcn/21/11-21-1562-09-00be-cc36-resolution-for-cids-for-35-3-9-2.docx) CC36 resolution for CIDs for 35.3.9.2 Laurent Cariou [5C SP-10’]

SP: Do you support to accept the resolution in 11-21/1562r11 for hte following CIDs?

4064 5258 6639 5757 5758

No Objection

1. [2020r2](https://mentor.ieee.org/802.11/dcn/21/11-21-2020-00-00be-cc36-cr-for-nsep-comments.docx) CC36\_CR\_for\_NSEP\_Comments Subir Das [22C SP-5’]

SP: Do you support to accept the resolution in 11-21/2020r2 for hte following CIDs?

7534, 5578, 5580, 5588, 5591, 7358, 6027, 7357, 5596, 5857, 7531, 7532, 7533, 7535, 7536, 7537, 7539, 7540, 7541, 7542, 7543, 7546, 6031, 6039

No Objection

1. [1706r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1706-01-00be-cr-for-cids-related-to-emlsr-beacon-transmission-and-reception.docx) CR for CIDs related to EMLSR Beacon Tx and Rx Gaurang Naik [3C SP-5’]

C: ”may not respond” should be changed to ”may choose not to ”. ”should” requirement at AP side is not clear. What happens to the STA if the AP doesn’t do that?

A: the second paragraph addresses it.

C: a few point still need to be addressed, e.g. no response to the initial control frame. It is better to have primary link negotiation for receiving group addressed frames.

A: many reasons may have influence to the reception of initial contorl frame. For primary link, it is not related to the CID. It is better to separate the discussion.

C: without receiving link of broadcast frames, it will have influence to the throughput because of the canceling of TXOP. It is better to define the receiving link of broadcast frames.

A: the receiving link may have other issues, e.g. when non-AP MLD may need to receive broadcast frames from other links, how often to do the switch.

1. [1681r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1681-02-00be-resolutions-for-cids-related-to-annex-b.docx) Resolutions for CIDs related to Annex B Rajat Pushkarna [6C SP-10’]

C: why MLD is mandatory?

A: receives comment about it.

C: For non-AP MLD side it should be optional.

A: need to check it.

C: can leave the items empty if the items can not get consensus.

C: beamforming is not mandatory.

1. [1483r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1483-02-00be-cc36-cr-cid-7888.docx) CC36 CR for CID 7888 Minyoung Park [1C SP-10’]

C: this is related to primary link discussed before.

A: AP still need to buffer the broadcast frames even if primary link is defined.

C: my point is that you don’t need to buffer the broadcast frames in the primary link if it is defined.

C: my comment is related to the first paragraph. But you change the second paragraph.

A: will check offline.

1. [1484r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1484-01-00be-cc36-cr-emlsr-medium-sync.docx) CC36 CR for EMLSR medium sync Minyoung Park [5C SP-10’]

C: support the direction. We may need the signaling for announcing the condition in first sentence, e.g. capabling of CCA.

A: there is no need to notify the AP. The STA can’t do the backoff during the loosing medium synchronization.

C: transmition delay and fraame exchange are two cases to create medium sync loss, am I right?

A: change ”while not ...or...” to ”while not...nor...”.

C: some wording change may be needed.

A: will do offline checking.

C: you may remove the restriction ”between AP MLD and eMLSR non-AP MLD”.

A: Do you talk about P2P? It is not allowed now.

C: eMLSR non-AP MLD can transmit Probe Request.

There is no response to chair’s request for other business. The meeting is adjorned at 11:57pm.