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,
* Rev1: Added the minutes from the telephone conferences held on February 07,
* Rev2: Added the minutes from the telephone conferences held on February 10,
* Rev3: Added the minutes from the telephone conferences held on February 14,
* Rev4: Added the minutes from the telephone conferences held on February 17,
* Rev5: Added the minutes from the telephone conferences held on February 24,
* Rev6: Added the minutes from the telephone conferences held on February 28,
* Rev7: Added the minutes from the telephone conferences held on March 03,

**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 is 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)
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5. The modified agenda is approved (revision changes, reordering, document deleting etc.).

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

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| --- | --- | --- | --- |
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| 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 11:57am.

**Monday 07 February 2021, 07:00pm – 09:00pm 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)
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5. The modified agenda is approved (revision changes).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/7 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/7 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 2/7 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/7 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/7 | Cariou, Laurent | Intel Corporation |
| TGbe (MAC) | 2/7 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 2/7 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/7 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/7 | ElSherif, Ahmed | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 2/7 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 2/7 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/7 | Gan, Ming | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/7 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/7 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 2/7 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 2/7 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 2/7 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 2/7 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 2/7 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 2/7 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/7 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 2/7 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 2/7 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 2/7 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/7 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/7 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 2/7 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/7 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 2/7 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 2/7 | Kumari, Warren | Google |
| TGbe (MAC) | 2/7 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 2/7 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 2/7 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/7 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 2/7 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/7 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 2/7 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/7 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/7 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/7 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/7 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/7 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 2/7 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 2/7 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 2/7 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 2/7 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 2/7 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 2/7 | Thompson, Tom | IEEE STAFF |
| TGbe (MAC) | 2/7 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 2/7 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 2/7 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 2/7 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 2/7 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 2/7 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 2/7 | Yang, Jay | Nokia |
| TGbe (MAC) | 2/7 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/7 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 2/7 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 2/7 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1686r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1686-02-00be-cr-for-low-latency-stream-identification.pptx) CR for Low-Latency stream identification Pascal Viger [2C SP-10’]

C: slide 7. 2nd subbullet in 2nd bullet seems have some misunderstanding. Different STAs may have different TIDs for one rTWT SP. TID bitmap is not in rTWT announcement of broadcast frame.

A: ok.

C: do you think SCSID is for future use only? Please clarify the SCSID implementation.

A: a STA may want to be triggered for SCSID. The proposal can be used for future extension.

SP 1:

* **Do you support that 802.11be makes use of both TID and SCSID identifications inside TFs and rTWT elements for latency-sensitive traffics ?**

Note: result of the strawpoll aims to trigger the resolution of CIDs 6511/6521

16Y, 45N, 22A

SP2:

* **Do you support that 802.11be supports individual identification (stream identifier per r-TWT scheduled STA) inside rTWT elements for latency-sensitive traffics ?**

28Y, 36N, 23A

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1. [1768r7](https://mentor.ieee.org/802.11/dcn/21/11-21-1768-06-00be-cc36-cr-for-restricted-twt-schedule-announcement.docx) CR for Restricted TWT Schedule Announcement Rubayet Shafin [1C SP-10’]

C: we have information shared between AP and non-AP. Is it possible that a STA knows whether rTWT SP is full occupied by using other informaiton?

A: no.

C: It is not clear for whcih reason an AP set this bit to 1.

A: it is up to AP’s implementation.

C: should that be possible for all broadcast TWT?

A: currently it is only applied to rTWT.

SP: Do you support to accept the resolution in 11-21/1768r7 for hte following CID?

* 6414

32Y, 10N, 42A

1. [1786r7](https://mentor.ieee.org/802.11/dcn/21/11-21-1786-06-00be-cr-for-nstr-mobile-ap-mlo-part2.docx) TGbe CC36 CR Mobile AP MLO Part2 Kaiying Lu [21C SP-10’]

C: clarificaiton of primary link definition. Is it possbile that different non-AP MLDs have different primary link?

A: the primary link is defined by mobile AP MLD. It is the link where the Beacons are transmitted by the mobile AP MLD.

SP: Do you support to accept the resolution in 11-21/1786r7 for hte following CIDs?

4081, 5067, 5268, 4082, 5699, 6966, 4210, 6407, 6501, 4211, 4212, 4213, 6328, 6500, 8211, 7424, 7425, 7426, 4206, 4207

No Objection

1. [1210r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1210-03-00be-soft-ap-mlo-part1.docx) TGbe CC36 CR Mobile AP MLO Part1 Kaiying Lu [14C SP-10’]

C: Page 8. I assume what you mean is that the restriction is unicast Probe Requet.

C: have concern about TBTT information part.

A: this option gets more support in offline discussion. Will try this option.

C: you mention that another document defines primary link.

A: yes.

SP: Do you support to accept the resolution in 11-21/1210r6 for hte following CIDs?

6177, 7826, 4078, 4079, 5065, 5066, 5107, 5701, 5702, 5703, 4247, 6965, 7622, 6971, 6972

33Y, 16N, 34A

1. [1930r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1930-05-00be-cc36-cr-for-some-cids-for-35-7-4-2-rtwt-quiet-interval.docx) CR 4 some CIDs 4 35.7.4.2 rTWT quiet interval Chunyu Hu [5C SP-10’]

SP: Do you support to accept the resolution in 11-21/1930r6 for hte following CIDs?

. 4088, 4117, 4158, 4159, 4707, 4709

No Objection

1. [1902r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1902-01-00be-cc36-cr-for-rtwt-low-lat-differentiation.docx) CR for rTWT low-lat differentiation Duncan Ho [15C SP-10’]

C: the text is not clear to me that the TID is used to differentiate low latency traffic. If a STA set all TIDs in TID bitmap to 1, does this mean that all TIDs are for low latency traffic?

A: different STAs have different TID bitmap. The best effort TID should not be used for low latency traffic.

C: is it possible that all TIDs are set to 1 in TID bitmap?

A: yes, it is possible. But the AP can reject the request if the request doesn’t make sense.

C: some restriction should be added, i.e. not all TIDs can be requested as low latency traffic.

C: what is the differentiation rules? There is no reference to how to differentiate the low latency traffic from the other traffic.

A: some TIDs are low latency, some are not. Do you want to remove this subcaluse?

C: yes.

There is no response to chair’s request for other business. The meeting is adjorned at 09:00pm.

**Thursday 10 February 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 is approved (revision changes, reordering, document deleting etc.).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/10 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/10 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 2/10 | Andersdotter, Amelia | Sky UK Group |
| TGbe (MAC) | 2/10 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/10 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/10 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 2/10 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/10 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 2/10 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 2/10 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/10 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 2/10 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 2/10 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/10 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/10 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 2/10 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 2/10 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/10 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 2/10 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 2/10 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 2/10 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 2/10 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/10 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 2/10 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/10 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 2/10 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/10 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 2/10 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 2/10 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 2/10 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 2/10 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 2/10 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/10 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/10 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/10 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/10 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 2/10 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 2/10 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 2/10 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/10 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/10 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 2/10 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/10 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/10 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 2/10 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/10 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/10 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 2/10 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 2/10 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 2/10 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 2/10 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 2/10 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 2/10 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 2/10 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 2/10 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/10 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 2/10 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 2/10 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 2/10 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1856r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1856-00-00be-cc36-cr-for-cid-6979.docx) CC36 CR for CID 6979 Sanghyun Kim [1C SP-10’]

C: the AP needs to know the BW of P2P if the AP uses the remaining time of the TXOP after P2P. How does the AP know it.

A: AP don’t need to know it.

C: can the BW of responding CTS is narrower than the BW of the soliciting MU\_RTS TXS?

A: yes.

C: then the MU-RTS TXS needs to indicate whether the AP allows the narrower BW of responding CTS.

A: can do offline discussion.

1. [1483r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1483-03-00be-cc36-cr-cid-7888.docx) CC36 CR for CID 7888 Minyoung Park [1C SP-10’]

C: The group-addressed frame doesn’t need to be buffered. The AP must stop its TXOP which may create performance issue.

A: for the first question, it is possible. But a initial control frame is needed.

C: for primary, secondary link case, the buffered operaiton is not needed.

SP: Do you support to accept the resolution in 11-21/1483r4 for hte following CID?

7888

25Y, 27N, 26A

1. [1484r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1484-02-00be-cc36-cr-emlsr-medium-sync.docx) CC36 CR for EMLSR medium sync Minyoung Park [5C SP-10’]

C: I have some comment related to primary link. Please defer this. Some other contribution will address it.

A: ok

1. [1770r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1770-01-00be-cc36-cr-for-cid-5919.docx) CC36 CR for CID 5919 Po-Kai Huang [1C 10’]

C: Page 6 question. after RSNA is established, why do you need to use same link for 4-way handshake? It is not needed.

A: after association, just choose one link for 4-way handshake.

C: still has some concern.

A: I can remove it.

C: not like the idea that 4-way handshake can use multiple links. It is safer to use one link for 4-way handshake.

A: the text is in line with your proposal.

SP: Do you support to accept the resolution in 11-21/1770r4 for hte following CID?

5919

35Y, 7N, 27A

1. [1761r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1761-02-00be-cr-for-a-mpdu-in-eht-ppdu.docx) CR for A-MPDU in EHT PPDU SunHee Baek [1C 10’]

C: generally looks good. Some subclause of 10.12 (e.g. 10.12.7) is missing. Will review it after the meeting.

A: will add it.

C: what is the class1/2 frame that can be transmitted in EHT PPDU?

A: I follow 11ax style.

C: 9.7.1 should be updated per 11me D1.0.

1. [1271r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1271-01-00be-cc36-cr-on-ft-action-frame.doc) CR on FT Action Frame Guogang Huang [1C 10’]

C: you may use FTR’s MAC address to simplify the document, e.g. replace MLD address of the target AP MLD.

A: the current text is more clear.

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

**Monday 14 February 2021, 07:00pm – 09:00pm 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 is approved (revision changes, adding 1721).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/14 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/14 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 2/14 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 2/14 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/14 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/14 | Batra, Anuj | Apple, Inc. |
| TGbe (MAC) | 2/14 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 2/14 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/14 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/14 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 2/14 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 2/14 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/14 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/14 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 2/14 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 2/14 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 2/14 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/14 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 2/14 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 2/14 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 2/14 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 2/14 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 2/14 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/14 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 2/14 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/14 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 2/14 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 2/14 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 2/14 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 2/14 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/14 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 2/14 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/14 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/14 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 2/14 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 2/14 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 2/14 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/14 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/14 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/14 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/14 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/14 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 2/14 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 2/14 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 2/14 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 2/14 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 2/14 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 2/14 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 2/14 | Wang, Hao | Tencent |
| TGbe (MAC) | 2/14 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 2/14 | Yang, Jay | Nokia |
| TGbe (MAC) | 2/14 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/14 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 2/14 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 2/14 | Yukawa, Mitsuyoshi | Canon, Inc. |
| TGbe (MAC) | 2/14 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/14 | Wang, Qi | Apple |

**Submissions**

1. [1176r11](https://mentor.ieee.org/802.11/dcn/21/11-21-1176-10-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-2.docx) Res. 4 CIDs related to ML advertisement-Part 2 Abhishek Patil [3C SP-10’]

**SP: Do you support to accept the resolution in 11-21/1176r11 for the following CIDs?**

4016, 6000, 6072

31Y, 22N, 25A

1. [1718r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1718-03-00be-cc36-cr-for-rtwt-sp-protection.docx) CC36 CR for rTWT SP Protection Patrice NEZOU [4C SP-10’]

SP: **Do you support to accept the resolution in 11-21/1718r4 for the following CIDs:**

6544,6512,6548,7338

10Y, 45N, 21A

1. 1271r4

SP: **Do you support to accept the resolution in 11-21/1271r4 for the following CID?**

5175

No objection

1. [1184r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1184-02-00be-cc36-resolution-for-cids-related-to-mbssid-part-1.docx) Resolution for CIDs related to MBSSID - Part 1 Abhishek Patil [10 CIDs]

SP: **Do you support to accept the resolution in 11-21/1184r3 for the following CIDs?**

4203 4205 4678 5071 4087 6645 5075 8252 8253

43Y, 6N, 22A

There is no response to chair’s request for other business. The meeting is adjorned at 09:00pm.

**Thursday 17 February 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 is approved (revision changes etc.).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/17 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/17 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/17 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 2/17 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/17 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 2/17 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/17 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 2/17 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 2/17 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 2/17 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/17 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/17 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 2/17 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 2/17 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 2/17 | Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| TGbe (MAC) | 2/17 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/17 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 2/17 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 2/17 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 2/17 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 2/17 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 2/17 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/17 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 2/17 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/17 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/17 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 2/17 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 2/17 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 2/17 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 2/17 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 2/17 | Levitsky, Ilya | IITP RAS |
| TGbe (MAC) | 2/17 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 2/17 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 2/17 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 2/17 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/17 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/17 | Monajemi, Pooya | Cisco Systems, Inc. |
| TGbe (MAC) | 2/17 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/17 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 2/17 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/17 | Orlando, Christian | IEEE STAFF |
| TGbe (MAC) | 2/17 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/17 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 2/17 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/17 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/17 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/17 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 2/17 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 2/17 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 2/17 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 2/17 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 2/17 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 2/17 | Stacey, Robert | Intel Corporation |
| TGbe (MAC) | 2/17 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 2/17 | Vermani, Sameer | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 2/17 | Wang, Hao | Tencent |
| TGbe (MAC) | 2/17 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 2/17 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 2/17 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/17 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 2/17 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 2/17 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 2/17 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1172r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1172-03-00be-cc36-resolution-for-cids-related-to-mlo-power-save.docx) Resolution for CIDs related to MLO Power-save Abhishek Patil [1C SP-10’]

**SP: Do you support to accept the resolution in 11-21/1172r3 for the following CID?**

**7061**

No Objection

1. [1327r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1327-05-00be-cc36-resolution-for-cid-5154.docx) Resolution-for-CID-5154 Arik Klein [1C SP-10’]

C: it should be treated as critical update. Otherwise the recipient Beacon may skip the decoding of the Beacon.

A: will do offline discussion.

C: The change of RNR is not required. The requirement to unassociated STA should be removed.

A: RNR change is for unassociated STA so that the unassociated STA will not use the disbled link for association. Can do offlne discussion.

C: the text for non-MLD non-AP STA should not be added.

C: The text of GTK/IGTK/BIGTK for non-AP STA should be implementation issue.

A: if the SHALL is removed, the STA can’t decode the encrypted Beacon etc.

C: the TWT session should be changed.

A: will check it.

1. [0386r7](https://mentor.ieee.org/802.11/dcn/21/11-21-0386-05-00be-cc34-resolution-for-cid-1038.docx) CC34 resolution for CID 1038 Abhishek Patil [1C SP-10’]

C: not sure the benifit of the proposal.

A: this provides one cretiaria whether non-AP can join the BSS.

C: the channel fading changes time by time. I doubt the equation that you proposed although I support the direction.

A: the equation provides the reference.

C: the Tx power is not the only item that a STA decides the joing of BSS.

C: ML Probe Response already include TPC report. TPC report is mandatory in 6GHz band.

A: but it is not mandatory requirement. TPC has many information that provides the overhead. Can add a condition that if TPC is included, the proposed information will not be carried.

**SP: Do you support to accept the resolution in 11-21/0386r7 for the following CIDs?**

**4041**

31Y, 22N, 25A

1. [1681r8](https://mentor.ieee.org/802.11/dcn/21/11-21-1681-06-00be-resolutions-for-cids-related-to-annex-b.docx) Resolutions for CIDs related to Annex B Rajat Pushkarna[6C SP-10’]

C: EHT OM is optional for 320MHz STA.

A: will check it offline.

C: it is not decided that MLO for non-AP as optional

A: will leave it as blank.

C: NSTR recovery should be mandatory.

C: it should be otpional. A MIB variable is added.

A: the timer of NSTR recovery is mandatory.

1. [1509r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1509-01-00be-cc36-comment-resolution-triggered-txop-sharing.docx) Comment resolution triggered TXOP sharing Liwen Chu [13 CIDs]

C: CID 5964, the resolution proposed is useful for Trigger frame transmitted by the STA solicited by MU-RTS TXS.

A: will add the Trigger frame use case in the discussion of the CID accordingly.

C: the STA solicited by MU-RTS TXS can just transmit Data frame instead of transmit RTS. The P2P transmission is already protected by MU-RTX TXS.

A: The transmission of MU RTX TXS and CTS is not enough to protect the P2P STA from its neighbors.

C: the RTS/CTS protection is not useful since if the CTS is not received, the allocated time is waste. The mechanism to release the allocated time back to the AP should be added.

A: if the CTS is not received, the STA can still transmit its frames to the AP.

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

**Thursday 24 February 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 is approved (adding 1484 for SP, revision changes etc.).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/24 | Adhikari, Shubhodeep | Broadcom Corporation |
| TGbe (MAC) | 2/24 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Andersdotter, Amelia | Sky UK Group |
| TGbe (MAC) | 2/24 | Ansley, Carol | Cox Communications Inc. |
| TGbe (MAC) | 2/24 | Au, Kwok Shum | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/24 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/24 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 2/24 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/24 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 2/24 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 2/24 | de Vegt, Rolf | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/24 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 2/24 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 2/24 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/24 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/24 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 2/24 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 2/24 | Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| TGbe (MAC) | 2/24 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/24 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 2/24 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 2/24 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 2/24 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/24 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 2/24 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/24 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 2/24 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 2/24 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 2/24 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 2/24 | Levitsky, Ilya | IITP RAS |
| TGbe (MAC) | 2/24 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 2/24 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 2/24 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/24 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/24 | Montreuil, Leo | Broadcom Corporation |
| TGbe (MAC) | 2/24 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/24 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 2/24 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 2/24 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/24 | Orlando, Christian | IEEE STAFF |
| TGbe (MAC) | 2/24 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/24 | Ozbakis, Basak | VESTEL |
| TGbe (MAC) | 2/24 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 2/24 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/24 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 2/24 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/24 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/24 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 2/24 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 2/24 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 2/24 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 2/24 | Stacey, Robert | Intel Corporation |
| TGbe (MAC) | 2/24 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 2/24 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 2/24 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 2/24 | Wang, Hao | Tencent |
| TGbe (MAC) | 2/24 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 2/24 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 2/24 | Xia, Qing | Sony Corporation |
| TGbe (MAC) | 2/24 | Yang, Jay | Nokia |
| TGbe (MAC) | 2/24 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/24 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 2/24 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 2/24 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 2/24 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1509r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1509-02-00be-cc36-comment-resolution-triggered-txop-sharing.docx) Comment resolution triggered TXOP sharing Liwen Chu [13 CIDs-Cont]

SP1: Do you support to accept the resolution in 11-21/1509r2 for the following CIDs?

5141, 5903, 6555

1. [1317r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1317-01-00be-cc36-cr-for-cids-related-to-35-11-3.docx) CR-for-cids-related-to-35-11-3 Yonggang Fang [21 CIDs]

C: the new element will not be in Beaon, Probe Response, right?

A: yes.

C: will send you some comments thorugh email ( the following are some of them, the text should be clear that MU EDCA parameter set will be used although EDCA for EPCS will be used.)

A: ok.

C: NSEP in the document should be changed to EPCS.

A: ok.

1. [0039r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0039-00-00be-cc36-cr-on-35-2-1-3-part-2.docx) CR for 35.2.1.3 part 2 Dibakar Das [15C]

C: the new mode will not be an issue since the new mode will need the redesign?

A: my point is that option 1 is applicable to the potential new mode.

C: agree with the previous comment. For extensibility, it is difficult to figure out the requirement of the next generation protocol.

A: can you give an example?

C: TDMA has multiple implementation ways.

C: both options could be used in R2. Don’t know how to vote.

Which option do you support to signal the time allocation field ?Option 1: User Info with 9 bits in granularity of 16us (~ 8ms) ?Option 2: Common Info with granularity of 16us ?

Option1 39, Option2 27, Abstain 17

The author reviews the changes per Option 1.

C: P10. M RTS and MU-RTS TXS have different reserved bits. It should be clarified.

A: will check offline.

There is no response to chair’s request for other business. The meeting is adjorned at 11:59am.

**Monday 28 February 2021, 07:00pm – 09:00pm 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 is approved (adding 2009r1, revision changes).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 2/28 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/28 | Adhikari, Shubhodeep | Broadcom Corporation |
| TGbe (MAC) | 2/28 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 2/28 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 2/28 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 2/28 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/28 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 2/28 | Erceg, Vinko | Broadcom Corporation |
| TGbe (MAC) | 2/28 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 2/28 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 2/28 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 2/28 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 2/28 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 2/28 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 2/28 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 2/28 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 2/28 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 2/28 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 2/28 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 2/28 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 2/28 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 2/28 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 2/28 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 2/28 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 2/28 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/28 | Monajemi, Pooya | Cisco Systems, Inc. |
| TGbe (MAC) | 2/28 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 2/28 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 2/28 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 2/28 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 2/28 | Orlando, Christian | IEEE STAFF |
| TGbe (MAC) | 2/28 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 2/28 | Park, Minyoung | Intel Corporation |
| TGbe (MAC) | 2/28 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 2/28 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 2/28 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 2/28 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 2/28 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 2/28 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 2/28 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 2/28 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 2/28 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 2/28 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 2/28 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 2/28 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 2/28 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 2/28 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 2/28 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 2/28 | Yang, Jay | Nokia |
| TGbe (MAC) | 2/28 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 2/28 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 2/28 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 2/28 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 2/28 | Rosdahl, Jon | Qualcomm Technologies, Inc. |

**Submissions**

1. [0039r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0039-02-00be-cc36-cr-on-35-2-1-3-part-2.docx) CR for 35.2.1.3 part 2 Dibakar Das [15C SP]

C: neither of two options got enough support. Don’t think option 1 (sequential SP allocation) is better.

A: option 1 got support more than option 2.

C: not sure whether TDMA can be applied to MU case. There is no technical discussion about TDMA method.

A: we did not propose the solution for future.

C: it seems you made changes to HE vatiant Trigger frame.

C: lots of discussion about this topic. It is natural that the medium time is put in STA Info field.

C: agree with the previous comment.

SP: Do you support to accept the resolution in 11-22/0039r2 for the following CIDs?

4186, 4811, 5121, 5388, 5902, 6001, 6699, 6973, 7327, 7556, 7557, 7665, 7698, 8078, 8317

31Y, 26N, 23A

1. [1761r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1761-00-00be-cr-for-a-mpdu-in-eht-ppdu.docx) CR for A-MPDU in EHT PPDU SunHee Baek [1C SP]

SP: Do you support to accept the resolution in 11-21/1761r3 for the following CID?

4295

No Objection

1. [1681r10](https://mentor.ieee.org/802.11/dcn/21/11-21-1681-09-00be-resolutions-for-cids-related-to-annex-b.docx) Resolutions for CIDs related to Annex B Rajat Pushkarna [6C SP]

C: R10 is not in server.

C: FR59.4 should be M.

A: ok.

C: medium access recovery should be applied to eMLSR.

A: ok.

1. [1902r4](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 [15C SP]

C: agreed to use TIDs to identify low latency traffic and it is enough. However this subclause is not needed.

A: the text clarifies that the TID bitmap defined in TWT element is used to identify the low latency traffic.

C: It seems the first paragraph is not needed.

SP: Do you support to accept the resolution in 11-21/1902r4 for the following CIDs?

4155, 4431, 4785, 4935, 5519, 6510, 6543, 6780, 7084, 7431, 7432, 7469, 7633, 7634, 7857

31Y, 20N, 22A

1. [1856r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1856-00-00be-cc36-cr-for-cid-6979.docx) CC36 CR for CID 6979 Sanghyun Kim [1C SP]

SP: Do you support to accept the resolution in 11-21/1856r3 for the following CID?

6979

No Objection

1. [1484r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1484-06-00be-cc36-cr-emlsr-medium-sync.docx) CC36 CR for EMLSR medium sync Minyoung Park [5C SP only]

SP: Do you support to accept the resolution in 11-21/1484r6 for the following CIDs?

5355, 6327, 6352, 6961, 7833, 4835

43Y, 7N, 18A

1. [1436r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1436-01-00be-resolution-for-cids-related-to-tdls-operation-with-mlo-part-2.docx) CIDs related to TDLS op. with MLO-part 2 Mike Montemurro [2C SP]

C: understand your concern. If RSNA is not needed, the TDLS between non-AP MLDs should also be allowed.

A: there is no open mode in 11be.

C: for some implementation, AP and the affiliated AP MLD share the same security context.

A: this is the only way to address the security issue.

C: please defer the SP in order to allow single-link TDLS between two MLDs.

A: ok.

1. [0024r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0024-02-00be-cc36-resolution-for-cids-related-to-ml-element-part-2.docx) CC36 Res. 4 CIDs related to ML element-Part 2 Gaurang Naik [31C]

C: once a CID is accepted, the other text in resolution column is not needed.

A: ok.

There is no response to chair’s request for other business. The meeting is adjorned at 09:00pm.

**Thursday 03 March 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 is approved (2031 deferreed, revision changes etc.).

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/3 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 3/3 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | Bahn, Christy | IEEE STAFF |
| TGbe (MAC) | 3/3 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 3/3 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 3/3 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/3 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 3/3 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/3 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/3 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 3/3 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/3 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/3 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/3 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/3 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 3/3 | Haider, Zeeshan | British Sky Broadcasting Ltd |
| TGbe (MAC) | 3/3 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | Hsieh, Hung-Tao | MediaTek Inc. |
| TGbe (MAC) | 3/3 | HUANG, CHIHAN | MediaTek Inc. |
| TGbe (MAC) | 3/3 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/3 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 3/3 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 3/3 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 3/3 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 3/3 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/3 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/3 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/3 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/3 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 3/3 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 3/3 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 3/3 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 3/3 | Lin, Hsin-De | MediaTek Inc. |
| TGbe (MAC) | 3/3 | Liu, Der-Zheng | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/3 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 3/3 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 3/3 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/3 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/3 | Monajemi, Pooya | Cisco Systems, Inc. |
| TGbe (MAC) | 3/3 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/3 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 3/3 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 3/3 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 3/3 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 3/3 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/3 | Ozbakis, Basak | VESTEL |
| TGbe (MAC) | 3/3 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/3 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/3 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/3 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 3/3 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/3 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 3/3 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 3/3 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 3/3 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 3/3 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 3/3 | Verenzuela, Daniel | Sony Corporation |
| TGbe (MAC) | 3/3 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 3/3 | Xu, Yanchao | Zeku |
| TGbe (MAC) | 3/3 | YANG, RUI | InterDigital, Inc. |
| TGbe (MAC) | 3/3 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/3 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/3 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/3 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/3 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 3/3 | Baw Chng | BAWMAN LLC |

**Submissions**

1. [2009r2](https://mentor.ieee.org/802.11/dcn/21/11-21-2009-01-00be-cr-for-3-2.docx) CR for 3.2 Po-Kai Huang [3C SP only]

There are some discussion about whether members can raise comments for the contribution the run SP only. The TG chair’s feedback is that if members would like to raise comments to the SP only contribution, they should ask for the changes of the agenda.

SP: Do you support to accept the resolution in 11-21/2009r2 for the following CIDs?

5293, 6636

40Y, 38N, 20A

1. [0024r4](https://mentor.ieee.org/802.11/dcn/22/11-22-0024-04-00be-cc36-resolution-for-cids-related-to-ml-element-part-2.docx) CC36 Res. 4 CIDs related to ML element-Part 2 Gaurang Naik [33C Cont.]

C: P4. STA address is always carried. How about ML Probe Request?

A: This subclause is for Basic ML element that will not be carried in ML Probe Request.

C: please run SP separately for the CIDs we discussed offline.

A: ok.

C: 8058. For MBSSID, it may not be transmitting link.

A: will defer this CID.

SP: Do you support to accept the resolution in 11-22/0024r4 for the following CIDs?

7584, 5178, 5057, 5826, 8282, 7571, 6557, 7392, 5665, 8031, 7813, 6871, 6189, 6190, 6191, 6192, 6535, 5740, 8225, 4084, 4085, 4086, 5059, 5060, 5967

No Objection

1. [0201r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0201-00-00be-cc36-cr-for-for-subclause-35-3-13.docx) CR for subclause 35.3.13 Ming Gan [23C]

C: the resolution of CID 4073 is not correct.

A: will do offline discussion.

C: 5378 should be deferred because of single link MLD.

A: ok.

C: CID 4073, the change is related to Broadcast TWT ID 0. Otherwise there will be issue for rTWT.

A: will do offline discussion.

C: cid 6648. Some group-addressed frames may be missed because of the switching link.

A: will do offline discussion about it.

SP: Do you support to accept the resolution in 11-22/0201r2 for the following CIDs?

4115 4278 4280 5339 5340 6648 6661 6936 6633 6634 5694 6376 6644 8245 8044 8246 8247

No Objection

1. [0193r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0193-00-00be-cc36-cr-clause-9.docx) CC36 CR Clause 9 Minyoung Park [24C]

C: the multi-link traffic should be optional present in Beacon when the negotiated TID-to-link mapping maps all the TIDs to the same subset of negotiated links.

A: generally agree with the comment.

C: Can single Multi-Link Traffic element or multiple Multi-Link Traffic elements be included in Beacon?

C: Please do offline discussion.

A: ok.

SP: Do you support to accept the resolution in 11-22/0193r0 for the following CIDs?

6706, 5052, 4107, 7352, 5136, 4350, 5137, 6373, 8176, 8174, 8175, 6370, 8056, 6708, 5358, 6652

No Objection

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