IEEE P802.11  
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc teleconferences in March to May 2022 | | | | |
| Date: 2022-03-16 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jeongki Kim | Ofinno |  |  | [jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com) |
| Liwen Chu | NXP |  |  | [liwen.chu@nxp.com](mailto:liwen.chu@nxp.com) |
|  |  |  |  |  |

Abstract

This document contains the meeting minutes for the TGbe MAC ad hoc teleconferences in March to May 2022.

Revisions:

* Rev0: Added the minute from the teleconferences held on March 16 and 17.
* Rev1: Added the minute from the teleconference held on March 21.
* Rev2: Added the minute from the teleconference held on March 24.
* Rev3: Added the minute from the teleconference held on March 28.
* Rev4: Added the minute from the teleconference held on March 31.
* Rev5: Added the minute from the teleconference held on April 7.
* Rev6: Added the minute from the teleconference held on April 11, 14.
* Rev7: Added the minute from the teleconference held on April 18.
* Rev8: Added the minute from the teleconference held on April 21.
* Rev9: Added the minute from the teleconference held on April 25.
* Rev10: Added the minute from the teleconference held on April 28.

**Wednesday, March 16, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r3. Some modifications. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/16 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 3/16 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/16 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 3/16 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 3/16 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/16 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 3/16 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/16 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/16 | Chung, Bruce | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/16 | Chung, Chulho | SAMSUNG |
| TGbe (MAC) | 3/16 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/16 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 3/16 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/16 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/16 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/16 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/16 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 3/16 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 3/16 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 3/16 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 3/16 | Handziski, Vlado | R3 Solutions GmbH |
| TGbe (MAC) | 3/16 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 3/16 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/16 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 3/16 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 3/16 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 3/16 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/16 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 3/16 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/16 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/16 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/16 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/16 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 3/16 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 3/16 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 3/16 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 3/16 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/16 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/16 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/16 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/16 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 3/16 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 3/16 | Ozgun, Bahadir | Airties Wireless Networks |
| TGbe (MAC) | 3/16 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/16 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/16 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/16 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 3/16 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/16 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 3/16 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 3/16 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 3/16 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 3/16 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 3/16 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 3/16 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 3/16 | Yamada, Ryota | SHARP CORPORATION |
| TGbe (MAC) | 3/16 | Yang, Jay | Nokia |
| TGbe (MAC) | 3/16 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/16 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/16 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/16 | Yukawa, Mitsuyoshi | Canon, Inc. |
| TGbe (MAC) | 3/16 | Zaman, Malia | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 3/16 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/16 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 3/16 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [0308r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0308-02-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-3.docx) Res. for CIDs related to ML adv.-P3 Abhishek Patil [24CIDs-Ctd.]

Discussion:

C: You changed HE part. Why not adding it in EHT subclause? move whole part to 35 clause?

A: No need to be duplicated.

C: how about adding ”to describe the STA 6G.”

A: to provide capabilities and operational parameters of the STA 6G.

C: Need to remove the shall in the note.

C: Need more discussion for SSID element on MLD.

**SP: Do you support to accept the resolution in 11-22/0308r4 for the following CIDs?**

* 5179 6541 6988 6989 6520 6542 5517 6213 4101 4264 4265 5515 5516 5828 6620 8059 5170 5906 8032

No objection

1. [1272r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1272-00-00be-cc36-cr-on-5174.doc) CR on 5174 Guogang Huang [1 CIDs]

Discussion:

**SP: Do you support to accept the resolution in 11-21/1272r1 for the following CID?**

5174

No objection

1. [1273r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1273-02-00be-cc36-cr-on-5196.docx) CR on 5196 Guogang Huang [1 CIDs]

**Discussion:**

C:Why do you add the field?

A: AP can know it.

C: MSDU deliver ratio, how do you use ? discarding the frame at the receiver buffer?

A: QoS characteristics element is defined SCS streams? Not TID? Do you agree?

C: can SCSIDs be differentiated with..?

A: we don’t extend the TID using 0-7, 0-15, Some SCS stream need to be distinguished.

1. [1279r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1279-00-00be-cc36-cr-for-d1-0-aad-and-nonce-cids.docx) CR for D1.0 AAD and Nonce CIDs Rojan Chitrakar [2 CIDs]

Disucssion:

C: The 1 bit proposed is not protected in the CCMP Header. The MLD bit is not protected. We need more discussion for the security.

A: Understand.

C: This is for improving the receiver side. Not sure if it’s necessary.

1. [1277r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1277-00-00be-cc36-cr-for-d1-0-group-key-handshake-cids.docx) Group Key handshake CIDs Rojan Chitrakar [5 CIDs]

Presented for 1 CID but not finished.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 12:00 ET**

**Thursday, March 17, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r5. Some modifications. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/17 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/17 | Bravo, Daniel | Intel Corporation |
| TGbe (MAC) | 3/17 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 3/17 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/17 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 3/17 | CHERIAN, GEORGE | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/17 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/17 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/17 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 3/17 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/17 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 3/17 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/17 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/17 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/17 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/17 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 3/17 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 3/17 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 3/17 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/17 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 3/17 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 3/17 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/17 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 3/17 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/17 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/17 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/17 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 3/17 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 3/17 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 3/17 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 3/17 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/17 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/17 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 3/17 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 3/17 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 3/17 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/17 | Ozgun, Bahadir | Airties Wireless Networks |
| TGbe (MAC) | 3/17 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/17 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/17 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 3/17 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/17 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/17 | Roder, Patricia | IEEE STAFF |
| TGbe (MAC) | 3/17 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 3/17 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/17 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 3/17 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 3/17 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 3/17 | Shu, Tongxin | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/17 | Sun, Bo | ZTE Corporation |
| TGbe (MAC) | 3/17 | Verenzuela, Daniel | Sony Corporation |
| TGbe (MAC) | 3/17 | VIGER, Pascal | Canon Research Centre France |
| TGbe (MAC) | 3/17 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 3/17 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 3/17 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/17 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/17 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/17 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/17 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 3/17 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [0326r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0326-01-00be-cc36-cr-for-35-6-1.docx) Comment Resolution for 35.6.1 and 3.1 CIDs Binita Gupta [26 CIDs]

Discussion:

C: If the sequnce flow is missing, it will be delayed. What kind of mechanism is used for higher reliability for latency senstive traffic?

A: r-TWT can be used for TXOP protection of latency sensitive traffic.

C: refering the context. High TX probability could reduce the retransmission.

C: No WLAN network in the spec. You can replace it with AP/STA.

C: Do we have network entity?

C: Use the BSS instead of WLAN network.

C: We can add some texts in front of the text for 7082.

C: You can define the related MIB variable (annex) in this document. You can check it.

C: Latency sensitive traffic is too general term. We need to general description. We can add the details in the first part of the last page.

A: This is general section. And, we already have the general definition in definition section.

C: For resource researvation mechanism, SCS mechanism is optional. How does the AP decide TWT in this case?

C: You need to provide the benefit of r-TWT SP as rejection reason compared to RAW.

C: RAW is only for S1G STA.

C: TWT was defined for S1G STA but 11ax brought it. The commenter already knows it’s for S1G.

C: We can defer the 6479.

C: 5662, what kind of traffic is lower latency traffic of r-TWT?

C: Is there the definition of network latency?

A: The definition is known term in 3GPP and others.

C: New term in IEEE ?

A: We can defer.

C: What is the certain reliability constraints? Ambiguous.

7462, 5662, 6479 were deferred in the document.

**SP: Do you support to accept the resolution in 11-22/325r3 for the following CIDs?**

7730, 4120, 4711, 5727, 6333, 6508, 6509, 7083, 5660,

5661, 5663, 6513, 4152, 7082, 5359, 5642, 6477, 7676,

7875, 4092, 5643, 7485, 7677

32/14/24

1. [0292r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0292-01-00be-cc36-mlo-power-save-procedures-part-2.docx) MLO Power Save Procedures (part 2) Abhishek Patil [11 CIDs]

Discusion:

C: Is that MLD BSS operation?

C: Is that APSD or U-APSD?

C: what about active mode in traffic indication?

A: In active mode, the bit is set to 0.

**SP: Do you support to accept the resolution in 11-22/292r4 for the following CIDs?**

5261 5353 6303 8036 7414 6159 7501 8297 7876 8362

No objection

1. [1277r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1277-00-00be-cc36-cr-for-d1-0-group-key-handshake-cids.docx) Group Key handshake CIDs Rojan Chitrakar [5 CIDs Cont.]

Discussion:

C: My comment suggests only to add the reference.

A: already there.

C: 6205, 12.6.1.1.11, For authenticator MAC address, you may add the non-MLO like BIGTK.

C: Just explanation for MLD, the authenticator’s MAC address is the MLD MAC address. Anyway, both have the authenticaor’s MAC address. We don’t need any addition.

**SP: Do you support to accept the resolution in 11-21/1277r0 for the following CIDs?**

6205, 6632, 6723, 6724, 7883

No objection

1. [1973r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1973-00-00be-comment-resolution-35-1-and-35-3-1.docx) CID-spreadsheet-35-1-and-35-3-1 Carol Ansley [5 CIDs]

Discussion:

C: What is the 1971r0?

A: I have to correct it(to 1973r2). The same document.

C: You need to add the CID.

C: Need to be normative text. You can add the shall.

C: generalize.

C: 6176 can be deferred.

Discussion on clause 9 frame format. The related CID was deferred.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 12:00 ET**

**Monday, March 21, 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
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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   * 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 11-22/428r6. Some modifications. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/21 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/21 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 3/21 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 3/21 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 3/21 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/21 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/21 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/21 | Choi, Jinsoo | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Chu, Liwen | NXP Semiconductors |
| TGbe (MAC) | 3/21 | CHUN, JINYOUNG | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/21 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/21 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/21 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/21 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/21 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 3/21 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 3/21 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/21 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Jung, hyojin | Hyundai Motor Company |
| TGbe (MAC) | 3/21 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/21 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/21 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/21 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 3/21 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 3/21 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 3/21 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 3/21 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 3/21 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/21 | Monajemi, Pooya | Cisco Systems, Inc. |
| TGbe (MAC) | 3/21 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/21 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/21 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 3/21 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 3/21 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 3/21 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 3/21 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/21 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/21 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/21 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/21 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 3/21 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 3/21 | Rezk, Meriam | Qualcomm Incorporated |
| TGbe (MAC) | 3/21 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/21 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 3/21 | Seok, Yongho | MediaTek Inc. |
| TGbe (MAC) | 3/21 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 3/21 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 3/21 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 3/21 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 3/21 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 3/21 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 3/21 | Wu, Tianyu | Apple, Inc. |
| TGbe (MAC) | 3/21 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 3/21 | Yamada, Ryota | SHARP CORPORATION |
| TGbe (MAC) | 3/21 | Yang, Jay | Nokia |
| TGbe (MAC) | 3/21 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/21 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/21 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/21 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/21 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [508r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0508-00-00be-cc36-resolution-to-cids-for-35-3-6.docx) CC36 resolution to CIDs for 35.3.6 Laurent Cariou [52C-55’]

Discussion:

C: data and management are individually addressed?

A: Yes

C: I have CIDs related to 5350. We can take offline discussion.

A: Ok

C: In Note, should be individual bufferable Management frames.

C:5272 is related to other CIDs. Can you defer it?

A: ok

C:5283, should be revised. It’s clarified in D1.5 already. 6260 is same(revised).

5272, 5273,

C: 5283, is already resoloved. You don’t need to remove it in the CID list.

**SP: Do you support to accept the resolution in 11-22/508r2 for the following CIDs?**

7850, 6757, 4055, 6578, 7816, 6283, 4056, 4057, 4058, 4742, 4743, 4744, 5985, 6287, 6288, 6403, 4061, 5239, 8039, 6580, 4745, 7333, 7852, 4110, 6582, 4382, 4383, 5271, 5274, 5029, 7819

5080, 5081, 5282, 5283, 6459, 6460, 5685, 4054, 6258, 6526, 5214

5922, 6579, 6731, 6504, 6524

No objection

1. [392r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0392-00-00be-cc36-crs-for-some-cids-on-restricted-twt.docx) CRs for some CIDs on Restricted TWT M. K. Haider [12C-15’]

Discussion:

C: 7631, do we have an individual code for status code field? Just EHT? We have so many optional features. Why do we specify only the r-TWT SP?

A: I can defer this.

6507 is deferred.

**SP: Do you support to accept the resolution in 11-22/392r0 for the following CIDs?**

4772, 5348, 6506, , 4781,

6413, 7408, 5878, 4122, 5730,

, 4589

No objection

1. [439r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0439-00-00be-cc36-cr-for-remaining-cids-about-critical-update.docx) CR for remaining CIDs about critical update Ming Gan [12C-15’]

Discussion:

C: This is fine. We need to distingish it from non-transmitted BSSID.

A: Ok

C: Note is not in the latest draft.

C: Need to modify the subclause to 35.3.10

C: 5939, you can mention outside the basic multi-link element at the end of the indicated text

C: we can defer 7339, 6754 for offline discussion

A: ok.

C: BSS Parameter Change Count corresponds to either the reporting AP or the reported AP.

**SP: Do you support to accept the resolution in 11-22/439r2 for the following CIDs?**

4003 4347 4348 5590 5939 6764 4012 5744 6014 7570

No objection.

1. [0061r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0061-00-00be-cc36-cr-for-ml-probing-to-retrieve-critical-update.docx) CR 4 ML probing 2 retrieve Crit. Update Jiin Kim [1C-15’]

Discussion:

C: what don’t you put just the reporting AP instead of AP (reporting AP)? Why do you have paratheses? Is there any different case?

C: at least any elements

C: If a reporting AP or When a reporting AP

C: This belongs to further optimization. Increase complexity. Overhead.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 21:00 ET**

**Thursday, March 24, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r8. Some modifications. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/24 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/24 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 3/24 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/24 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 3/24 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/24 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/24 | Choi, Jinsoo | LG ELECTRONICS |
| TGbe (MAC) | 3/24 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/24 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/24 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 3/24 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/24 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/24 | Ghosh, Chittabrata | Facebook, Inc. |
| TGbe (MAC) | 3/24 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/24 | Haasz, Jodi | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 3/24 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 3/24 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 3/24 | Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| TGbe (MAC) | 3/24 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/24 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 3/24 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 3/24 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/24 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 3/24 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/24 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/24 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/24 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/24 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 3/24 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 3/24 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 3/24 | Levitsky, Ilya | IITP RAS |
| TGbe (MAC) | 3/24 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 3/24 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/24 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/24 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/24 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 3/24 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 3/24 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/24 | Ozgun, Bahadir | Airties Wireless Networks |
| TGbe (MAC) | 3/24 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/24 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/24 | Park, Minyoung | Intel Corporation |
| TGbe (MAC) | 3/24 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/24 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/24 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 3/24 | Sosack, Robert | Molex Incorporated |
| TGbe (MAC) | 3/24 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 3/24 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 3/24 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 3/24 | Yang, Jay | Nokia |
| TGbe (MAC) | 3/24 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/24 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/24 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/24 | Zhou, Lei | H3C Technologies Co., Limited |

**Submissions**

1. [306r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0306-00-00be-cc36-cr-emlsr-misc.docx) CC36 CR EMLSR Misc. Minyoung Park [54C-60’]

Discussion:

C: 5357, I’m not clear EMLSR STA’s operation for NAV update.

A: If STA receive non-HT PPDU, the STA can set the NAV based on the duration field.

C: There is fairness issue for NAV setting with other STAs.

5357 is deferred.

C: static SM power saving can be operated in EMLSR mode.

A: I can remove it in the text.

C: EHT STAs don’t use static SM power saving?

C: AP sets this subfield to 1 in complete profile. Is it mandatory?

A: Yes.

C: This offset is relative with which one?

A: Between reported and reporting.

C: Can this TSF Offset be inferred from TBTT Offset?

A: TBTT offset is 1 TU unit. 1ms.

C: TSF timer could be rap around. Does it work?

A: I think it works.

C: enabled links or setup links? It seems like cicle.

A: enabled links is correct.

C: You do not have to have two paragraphs for one bit setting in TIM element. Individual addressed BU including MSDU and MMPDU.

C: 6885 is related to r-TWT. Could you defer it?

A: Sure.

C: 6984, I have concent on it. Can you defer it? 4029 could be deferred.

A: OK

C: We should not allow the Bitmap Size subfield value of 0. Only one link is operation on the AP MLD. This is redundent information.

C: if this is the largest value, then what is it? if this is not the largest value, then what is it?

C: 5773, 4932, we can defer them.

A: Ok

C: 6586 is deferred.

C: how about listening mode?

A: We left the implementation.

C: 7866, 6326 are deferred.

C: padding delay, it depends on implementation for non-HT PPDU and TB PPDU. Could you defer 8049?

A: Ok, 8049 is deferred.

C: CID static SM/dynamic SM powers aving. Can you defer the related CIDs?

C: 7822 could be deferred.

5357, 6345, 5932, 4029, 4334, 4335, 4336, 5747, 5905, 6247, 6248, 6885, 7822, 6984, 5773, 4932, 6586, 7866, 6326, 8049, were deferred.

**SP: Do you support to accept the resolution in 11-22/306r1 for the following CIDs?**

4700, 4701, 7497, 7612, 7613, 6939, 4332,

4306, 6170, 5346, 6348, 4371, 6219, 5342, 4333, 7565,

5912, 7580, 6349, 5138, 5760,

6502, 4389, 4749, 5149, 5762, 7418,

7825, 7867, 4757, 7422,

6962, 5934, 7423

No objection.

1. [2027r3](https://mentor.ieee.org/802.11/dcn/21/11-21-2027-01-00be-cc36-resolution-for-cids-in-clause-35-3-4-3-part-2.docx) Resolution for CIDs in Clause 35.3.4.3-part 2 Gaurang Naik [20C-25’]

Discussion:

C: you change it from be able to discover to shall discover. Meaning is different.

A: I can take the offline discussion for two CIDs 6198, 7456.

C: exception cases in your proposed text.

A: Non-AP STA intends to receive the group addressed frame. We can defer the CIDs.

, 6198, 7456, 4025, 6324, 4421, 8356, 4699, 6069 were deferred.

**SP: Do you support to accept the resolution in 11-21/2027r3 for the following CIDs?**

4047, 5076, 5914, 5978, 6751 6981, 7893, 6011, 5336

5451, 8048, 7467

No objection

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 12:00 ET**

**Monday, March 28, 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Alfred Asterjadhi (Qualcomm Inc.)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. Due to Liwen’s screen problem, the TGbe chair (Alfred) calls the meeting to order at 19:04 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r10. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/28 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 3/28 | Adhikari, Shubhodeep | Broadcom Corporation |
| TGbe (MAC) | 3/28 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 3/28 | Au, Kwok Shum | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/28 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/28 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/28 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/28 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/28 | Choi, Jinsoo | LG ELECTRONICS |
| TGbe (MAC) | 3/28 | CHUN, JINYOUNG | LG ELECTRONICS |
| TGbe (MAC) | 3/28 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 3/28 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 3/28 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/28 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/28 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/28 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 3/28 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 3/28 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/28 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/28 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 3/28 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 3/28 | Jung, hyojin | Hyundai Motor Company |
| TGbe (MAC) | 3/28 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 3/28 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/28 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 3/28 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/28 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/28 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 3/28 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/28 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 3/28 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 3/28 | Liu, Der-Zheng | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/28 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/28 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 3/28 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/28 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 3/28 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/28 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 3/28 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/28 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/28 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 3/28 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 3/28 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 3/28 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 3/28 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/28 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 3/28 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 3/28 | Sun, Bo | ZTE Corporation |
| TGbe (MAC) | 3/28 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 3/28 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 3/28 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 3/28 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 3/28 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 3/28 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 3/28 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 3/28 | Yang, Jay | Nokia |
| TGbe (MAC) | 3/28 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/28 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/28 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/28 | Yukawa, Mitsuyoshi | Canon, Inc. |
| TGbe (MAC) | 3/28 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/28 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1825r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1825-00-00be-remaining-cr-for-35-3-15-8-1.docx) Remaining CR for 35.3.15.8.1 Dibakar Das [50C-60’]

Discussion:

C: Need more discussion on 5105.

A: ok, can you take it?

C: Ok

8350 is reassigned to Greg. The chair announce that 8350 needs to be resovled in a week. Otherwise it could be qurantined.

C: you added new MIB variable? Did you cross-check it in the spec?

A: Yes

C: 6320 needs to be deferred.

A: ok

C: A few comments on MLMR also need more discussion.

6136 is deferred as well.

C: You used absolute value. I’m not comfortable with it.

A: STA does not use the fixed value but uses MIB variable instead of the fixed value. OFDMEDTheashold is already a fixed value in the baseline. The same.

C: I have similar concern on previous commenter. There is only one sentence for fixed value in the spec.

C: You need to update the MIB variable range values .

The MIB related CIDs (8349, 8350) were deferred.

C: Yongho, can you suggest the line to add to the MIB variable with the range?

C: We can add on the fly that part if straightforward once we are done with this second round of CIDs

A: Change to SYNTAX Integer32(-62..-82)

C: 5326, Liwen has a resolution. Need to consider it with others.

C: why do you change the text to ”determine...”?

A: it’s in the baseline.

C: I will check it.

C: can you defer 8184?

A: ok

C: I need to defer this CIDs for more discussion 4836, NSTR softAP.

C: What is the resolution on CID?

C: change from unsigned to integer. (-72..-62)

**SP1:**Do you agree to resolve the following CIDs listed in [11-21/1825r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1825-01-00be-remaining-cr-for-35-3-15-8-1.docx) and incorporate the text changes into the latest TGbe draft?

* ~~5105, 6136,~~ 6319, ~~6320,~~ 7609, 8349, 8350, ~~4836,~~ 4237, ~~7782, 5127~~, 5103, 6657, 7869
* 4268, 4733, 5131, 5354, 5442, 5835, 5942, 6022, 4367, 6214, 6389, 6976, 7583, 6215, 6590, 6591, 7776, ~~5362,~~ 6927,
* 7666, 5143, ~~6556,~~ 5241, 5242, 5965, 8319, 4191, 4192, 6357, 6358, 6978, 7774, ~~8184,~~ 8326, 5599, 6531,

Discussion: None.

Result: No objection.

1. [1575r](https://mentor.ieee.org/802.11/dcn/21/11-21-1575-00-00be-proposed-cr-for-clause-35-3-15-6-sync-ppdu-start-time.docx)1 CR for Clause 35.3.15.6. Sync PPDU start time Dmitry Akhmetov [21C-25’]

Discussion:

C: 4413 should be revised. 5897 did not reach consensus according to the result.

5897 is reassigned to Liangxiao.

**SP:** Do you agree to resolve the following CIDs listed in [11-21/1575r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1575-01-00be-proposed-cr-for-clause-35-3-15-6-sync-ppdu-start-time.docx) and incorporate the text changes into the latest TGbe draft?

* 4482, 4483, 6316, 6317, 6383, 6771, 6773, 7871, 8249, 8347, 4233, 4412, 4753, 7787, 8040, 8348, 4413, ~~5897,~~ 7608

Discussion: None.

Result: No objection.

1. [1277r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1277-01-00be-cc36-cr-for-d1-0-group-key-handshake-cids.docx) Group Key handshake CIDs Rojan Chitrakar [1C SP 5’]

**SP3:** Do you agree to resolve the following CIDs listed in [11-21/1277r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1277-01-00be-cc36-cr-for-d1-0-group-key-handshake-cids.docx) and incorporate the text changes into the latest TGbe draft?

* 6205

Discussion: None.

Result: No objection.

1. [0214r5](https://mentor.ieee.org/802.11/dcn/22/11-22-0214-04-00be-cc36-cr-emlsr.docx) CR EMLSR Minyoung Park [8C SP 5’]

Summary: resolution on deferred CIDs 4760,5668,6882,5612,5844,6551, 5650,7490

Discussion:

C: Definition part and general description are not same. EMLSR links and a set of enable links. Are they same?

**SP4:** Do you agree to resolve the following CIDs listed in [11-22/214r5](https://mentor.ieee.org/802.11/dcn/22/11-22-0214-05-00be-cc36-cr-emlsr.docx) and incorporate the text changes into the latest TGbe draft?

* 4760, 5668, 6882, 5612, 5844, 6551, 5650, 7490

Discussion: Some minor discussion.

Result: 36Y, 6N, 21A

1. [1184r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1184-03-00be-cc36-resolution-for-cids-related-to-mbssid-part-1.docx) Res. 4 CIDs related to MBSSID-Part 1 Abhishek Patil [1C SP 5’]

Discussion:

C: In the figure, Links should be AP (reporting or reported)?

A: Ok

C: Could you send me the visio file?

A: Ok

Abhi will share the updated visio file with Edward.

**SP5:** Do you agree to resolve the following CIDs listed in [11-21/1184r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1184-03-00be-cc36-resolution-for-cids-related-to-mbssid-part-1.docx) and incorporate the text changes into the latest TGbe draft?

* 5074

Discussion: None.

Result: No objection.

1. [382r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0382-00-00be-cc36-cr-for-remaining-cids-in-subclause-9.docx) CR for remaining CIDs in subclause 9 Ming Gan [9C-15’]

Discussion:

C: There is a related other subclause related to AID (4004) for EHT STA/MLD.

A: Ok

C: that is a STA that is associated to non-EHT AP.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 21:00 ET**

**Thursday, March 31, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r12. Some modifications. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 3/31 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 3/31 | Bahn, Christy | IEEE STAFF |
| TGbe (MAC) | 3/31 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 3/31 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 3/31 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 3/31 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 3/31 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 3/31 | Chung, Chulho | SAMSUNG |
| TGbe (MAC) | 3/31 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 3/31 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 3/31 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 3/31 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 3/31 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 3/31 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 3/31 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 3/31 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 3/31 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 3/31 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 3/31 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 3/31 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 3/31 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 3/31 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 3/31 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 3/31 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 3/31 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 3/31 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/31 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 3/31 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 3/31 | Krebs, Alexander | Apple, Inc. |
| TGbe (MAC) | 3/31 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 3/31 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 3/31 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 3/31 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 3/31 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 3/31 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 3/31 | Max, Sebastian | Ericsson AB |
| TGbe (MAC) | 3/31 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/31 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/31 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 3/31 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 3/31 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 3/31 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 3/31 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 3/31 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 3/31 | Ozbakis, Basak | VESTEL |
| TGbe (MAC) | 3/31 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 3/31 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 3/31 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 3/31 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 3/31 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 3/31 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 3/31 | Seo, Sangho | Infineon Technologies |
| TGbe (MAC) | 3/31 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 3/31 | Shilo, Shimi | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/31 | Shu, Tongxin | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 3/31 | Sosack, Robert | Molex Incorporated |
| TGbe (MAC) | 3/31 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 3/31 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 3/31 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 3/31 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 3/31 | Yang, Jay | Nokia |
| TGbe (MAC) | 3/31 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 3/31 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 3/31 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 3/31 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 3/31 | Zhou, Lei | H3C Technologies Co., Limited |

**Submissions**

1. [382r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0382-02-00be-cc36-cr-for-remaining-cids-in-subclause-9.docx) CR for remaining CIDs in subclause 9 Ming Gan [9C-15’ C.]

Discussion:

C: What is happening for non-AP MLD for added texts?

**SP: Do you support to accept the resolution in 11-22/382r3 for the following CIDs?**

* + 4004 4012 4098 4330 5894 5317 5319 8273

No objection

1. [1185r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1185-02-00be-cc36-resolution-for-cids-related-to-mbssid-part-2.docx) Resolution for CIDs related to MBSSID - Part 2 Abhishek Patil [11C 20’]

Discussion:

C: If you reject this CID 5330, it means that you need to list element. You need to clarify the rejection reason.

A: I can update the rejection reason.

C: Regarding the added text, 7881, it seems like overhead of beacon. Are they always preset?

7881 was deferred.

C: note repeated the same text.

A: Different clause. May be duplicated. We need to make sure much clear.

C: the AP is in the same MLD? Not different MLD? Just reported or reporting AP?

7881, 4068 are deferred by a requst.

**SP: Do you support to accept the resolution in 11-21/1185r5 for the following CIDs?**

* + 5329 5330 6329 4103 6859 6860 6861 6862 6863

No objection

1. [1582r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1582-04-00be-cc36-resolution-for-cids-related-to-mlo-ba-procedures-part-2.docx) Res. 4 CIDs related to MLO BA procedures - part 2 Abhishek Patil [11C 20’]

Discussion:

C: The capability sentence, we already have the similar sentence. If you want to emphasize it, we can add it in the note with subclause 12.6.2. 12.6.3.1.

A: Ok, done.

C: you mention each STA maintain independent scoreboard text. What is the size of it? Is it same as MLD level?

A: The socoreboard size of MLD level is negotiated. You don’t have to have link level.

C: each link focus on partial state. You don’t need to add new thing. Don’t have problem.

6289 is deferred.

**SP: Do you support to accept the resolution in 11-21/1582r5 for the following CIDs?**

* + 7435 4062 6625 7601 7894 6675 6992 6993 5163 5166

No objection

1. [0392r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0392-01-00be-cc36-crs-for-some-cids-on-restricted-twt.docx) CRs for some CIDs on Restricted TWT M. K. Haider [2C SP 5’]

Disucssion:

C: I already commented the status codes that you added. There are several methods. Don’t need to have this particular code for specific feature. There are many options features.

C: Don't think this reason code adds any value ... all legacy STAs won't understand it.

C: how about separate two CIDs for progress?

A: Good suggestion

**SP: Do you support to accept the resolution in 11-21/1582r5 for the following CIDs?**

6507

No objection

**SP: Do you support to accept the resolution in 11-21/1582r5 for the following CIDs?**

7631

21Y, 32N, 21A

1. [0326r5](https://mentor.ieee.org/802.11/dcn/22/11-22-0326-03-00be-cc36-cr-for-35-6-1.docx) Comment Resolution for 35.6.1 and 3.1 CIDs Binita Gupta [26C SP 5’]

Discussion

C: Would you give me to present it?

A: I can defer it.

5662 is deferred.

**SP: Do you support to accept the resolution in 11-22/326r5 for the following CIDs?**

7730, 4120, 5727, 6333, 7462, 6508, 6513, 4711, 5660, 5661, 4152, 7083

7082

5642, 6477, 7676, 7875, 4092, 5643, 7485, 7677,

6509, 5663, 5359, 6479

No objection

1. [2027r3](https://mentor.ieee.org/802.11/dcn/21/11-21-2027-04-00be-cc36-resolution-for-cids-in-clause-35-3-4-3-part-2.docx) CC36 Res. for CIDs in Clause 35.3.4.3 - part 2 Gaurang Naik [9C SP 5’]

Discussion:

C: clause 35 should be normative text. But they became informative texts.

C: CID 4699, proposed resolution is to add the note.

A: I defer the CID.

C: 6324, Do we need to add the beacon frame?

A: group management frame includes beacon frame. Group addressed frame does not have meaning.

**SP1: Do you support to accept the resolution in 11-21/2027r4 for the following CIDs?**

6198, 7456

35Y, 10N, 25A

**SP2: Do you support to accept the resolution in 11-21/2027r4 for the following CIDs?**

4025, 7893, 6324, 4421,

No objection

1. [026r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0026-01-00be-cc36-cr-of-nstr-capability-update.docx) CR-of-nstr-capability-update Yunbo Li [6C-15’]

Discussion:

C: AP MLD shall not send new update frame that you added.

A: ok let me do it.

Chair: Please have offline discussion due to long queue.

A: Ok

SP is deferred.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 12:00 ET**

**Thursday, April 7, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r15. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 4/7 | Abouelseoud, Mohamed | Apple Inc. |
| TGbe (MAC) | 4/7 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 4/7 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 4/7 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 4/7 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 4/7 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 4/7 | Chiang, James | MediaTek Inc. |
| TGbe (MAC) | 4/7 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 4/7 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 4/7 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 4/7 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 4/7 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 4/7 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 4/7 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 4/7 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 4/7 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 4/7 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 4/7 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 4/7 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 4/7 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 4/7 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 4/7 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 4/7 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 4/7 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 4/7 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 4/7 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 4/7 | kim, Jiin | LG ELECTRONICS |
| TGbe (MAC) | 4/7 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 4/7 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 4/7 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 4/7 | Kipness, Michael | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 4/7 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/7 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 4/7 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 4/7 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 4/7 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 4/7 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 4/7 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 4/7 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 4/7 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 4/7 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 4/7 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 4/7 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 4/7 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 4/7 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 4/7 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 4/7 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 4/7 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 4/7 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 4/7 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 4/7 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 4/7 | Taori, Rakesh | Infineon Technologies |
| TGbe (MAC) | 4/7 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 4/7 | Verenzuela, Daniel | Sony Corporation |
| TGbe (MAC) | 4/7 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 4/7 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 4/7 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 4/7 | Yamada, Ryota | SHARP CORPORATION |
| TGbe (MAC) | 4/7 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 4/7 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 4/7 | Zhou, Lei | H3C Technologies Co., Limited |

**Submissions**

1. [550r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0550-02-00be-cc36-comment-resolution-for-various-comments-part-1.docx) Com. Res. for various comments part 1 Liwen Chu [28C 5’ C.]

Discussion:

C: I recommend that you add ”if any/present” to Extended Buffer Size related to text.

A: That field is always present.

A: Let’s leave one CID and discuss more.

C: what is the technical reason of rejection 4337?

4337 and 7596 were deferred.

**SP: Do you support to accept the resolution in 11-22/550r2 for the following CIDs?**

4274, 4368, 4369, 4370, 5383, 6673, 6711, 6944,7829,7830 4297, 4298, ~~4337~~, 5026 4303, 6028 5160, 6503, 6505, 5986, 62067873, ~~7596~~, 7597, 7598, 7599, 5987, 5611

No objection.

1. [570r](https://mentor.ieee.org/802.11/dcn/22/11-22-0570-00-00be-cc36-comment-resolution-for-miscellaneous-comments-part-2.docx)2 Com. Res. for misc. comments part 2 Liwen Chu [45C 45’]

Discussion:

C: each of some STAs means? Is it frame or some STAs? You can remove each of.

C: what is all the allowed frame exchanges?

A: all the frame exchanges that are already defined in 11be.

C: You can remove the.

4763 is deferred

7614, 4762, 5669, 6881, 6550, 5846, 5613 are deferred.

C: we already added the identical text in eMLSR subclause. D1.5, 422 page, 48 line makes the changes.

6218 is deferred

C: are you saying AP could reject it?

A: yes, AP MLD should be able to reject the EMLMR transition in such scenario. Alternatively, there should be some guidance in the spec that would prohibit non-AP MLD sending such request.

C: We have eMLMR STA?

8050, 6220 were deferred.

C: EMLMR STA or EMLMR MLD are defined?

C: I could not find a definition of "EMLMR STA".

**SP: Do you support to accept the resolution in 11-22/570r3 for the following CIDs?**

~~4763~~, 4705, ~~7614, 4762, 5669, 6881, 6550, 5846, 5613~~, 5935,

5670, 6217, 4761,

~~6742, 8359~~, 4486, 6621, 4487, 4702, 4242, ~~6218,~~

4423, 4424, 4243, 6779, 5899, 7615,

5847, 6884, 5848, 6659, 8360, 4703,

~~8050, 6220, 5223, 5224, 6067~~, 5849, 5860, ~~6135~~,

6071, ~~6066, 6422, 8361~~

No objection.

1. [526r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0526-00-00be-cr-for-miscellaneous-cids.docx) CR for Miscellaneous CIDs Po-Kai Huang [28C 25’]

Discussion:

C: I loss the note. Can you clarify?

**SP: Do you support to accept the resolution in 11-22/526r0 for the following CIDs?**

**4257, 5288, 8232, 8233, 8045, 5297, 5382, 5786, 6064, 6139, 6371, 6756, 6037,**

No objection.

**The chair asked whether there is any other business before adjourning the call. Nobody spoke.**

**The teleconference was adjourned at 12:00 ET**

**Monday, April 11, 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Alfred Asterjadhi (Qualcomm Inc.)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The TGbe chair (Alfred) calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r17. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 4/11 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 4/11 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 4/11 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 4/11 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 4/11 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 4/11 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 4/11 | de Vegt, Rolf | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 4/11 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 4/11 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 4/11 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 4/11 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 4/11 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 4/11 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 4/11 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 4/11 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 4/11 | Inohiza, Hirohiko | Canon |
| TGbe (MAC) | 4/11 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 4/11 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 4/11 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 4/11 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 4/11 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 4/11 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/11 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 4/11 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 4/11 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 4/11 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 4/11 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 4/11 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/11 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 4/11 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 4/11 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 4/11 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 4/11 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 4/11 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 4/11 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 4/11 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 4/11 | Shirakawa, Atsushi | SHARP CORPORATION |
| TGbe (MAC) | 4/11 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 4/11 | Sun, Bo | ZTE Corporation |
| TGbe (MAC) | 4/11 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 4/11 | Tanaka, Yusuke | Sony Group Corporation |
| TGbe (MAC) | 4/11 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 4/11 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 4/11 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 4/11 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 4/11 | Yamada, Ryota | SHARP CORPORATION |
| TGbe (MAC) | 4/11 | Yan, Aiguo | Zeku |
| TGbe (MAC) | 4/11 | Yang, Jay | Nokia |
| TGbe (MAC) | 4/11 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 4/11 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 4/11 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 4/11 | Yukawa, Mitsuyoshi | Canon, Inc. |
| TGbe (MAC) | 4/11 | Zaman, Malia | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 4/11 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 4/11 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 4/11 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [077r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0077-01-00be-cr-for-cids-on-ppdu-end-time-alignment.docx) CR for CIDs on PPDU End Time Alignment Yongho Seok [38C 45’]

Discussion:

C: You have two a pair of NSTR links. Change it to the in the second. Or that

A: Ok

C: CID 4833 is also a duplicate

C: change of to affiliated with.

C: the STAs of MLD operating on a pair of NSTR link.

A: a pair of STAs ... and operating on the a pair of NSTR link

C: operating on a link that is part of NSTR link pair.

C: 5929, AP already is padding for MU PPDU. What is the different?

C: the padding is allowed for lower priority AC. Not sure that it’s allowed to high prioirty AC. I can defer.

C: a link that is part of an NSTR link pair

**SP: Do you support to accept the resolution in 11-22/077r2 for the following CIDs?**

* 4225, 4226, 4227, 4228, 4402, 4406, 4407, 4408, 4409, 4410, 4475, 4476, 4477, 4478, 4479, 5101, 5102, 5150, 5221, 5364, 5384, 5842, 5843, ~~5929~~, 5948, 5994, 6141, 6495, 6738, 6772, 6928, 6996, 7375, 7607, 7788, 7879, 8207, 8213, 4833.

No objection

1. [547r](https://mentor.ieee.org/802.11/dcn/22/11-22-0547-00-00be-cc36-cr-for-qos-related-and-misc-topics.docx)3 CR for QoS related and misc topics Duncan Ho [17C 20’]

Discussion:

C: change agree to revised in the first CID.

C: change rejected to revised with modification.

C: You can add editor introduction like no further change in reivsed. Note to editor. No further changes to the drafts are needed.

C: 6898, no discussion.

I will defer 6898.

C: The comment is to define a traffic profile. You can add the general reason. Or you can change the rejected to revised.

**SP: Do you support to accept the resolution in 11-22/0547r5 for the following CIDs?**

4917, 5638, 5639, 5640, 6186

4920, 5774, 6522, 6523, 7844, 7870

5182,

4921, 5881, 5952

No objection

1. [1273r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1273-05-00be-cc36-cr-on-5196.docx) CR on 5196 Guogang Huang [SP 1C 5’]

Discussion:

C: This SCSID element is too much at this time. That is related to existing text. This measurement is not for reliablity and lower latency. We need to have more complete design.

A: Do you have specific design?

C: Is this for receiver sider?

A: This is for transmitter.

C: can the reliable delivery reach .999 in unlisence band?

C: I am not sure why delivering the qos has to be achieved by having such report/feedback.

**SP: Do you support to accept the resolution in 11-21/1273r5 for the following CIDs?**

5196, 7620

15Y/28N/26A

1. [1279r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1279-00-00be-cc36-cr-for-d1-0-aad-and-nonce-cids.docx) CR for D1.0 AAD and Nonce CIDs Rojan Chitrakar [SP 2C 5’]

Discussion:

C: we don’t think the benefit of the proposal. I need to go further investigation.

A: I agree with this header is not protected. I wanna to check opinion.

**SP: Do you support to accept the resolution in 11-21/1279r0 for the following CIDs?**

6718, 6720

8Y/28N/31A

1. [515r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0515-02-00be-updating-nstr-indication-bitmap-via-om-control.docx) updating-NSTR-Indication-Bitmap-via-OM-Control Xiangxin Gu [1C-10’ C.]

Presented but not finished.

**No other business. The teleconference was adjourned at 21:00 ET**

**Thursday, April 14, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 10:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r18. The agenda was approved.

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

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Breakout | Timestamp | | Name | | Affiliation | |
| TGbe (MAC) | 4/14 | | Ajami, Abdel Karim | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Ansley, Carol | | Cox Communications Inc. | |
| TGbe (MAC) | 4/14 | | Baek, SunHee | | LG ELECTRONICS | |
| TGbe (MAC) | 4/14 | | Bahn, Christy | | IEEE STAFF | |
| TGbe (MAC) | 4/14 | | Bankov, Dmitry | | IITP RAS | |
| TGbe (MAC) | 4/14 | | baron, stephane | | Canon Research Centre France | |
| TGbe (MAC) | 4/14 | | Bredewoud, Albert | | Broadcom Corporation | |
| TGbe (MAC) | 4/14 | | Carney, William | | Sony Group Corporation | |
| TGbe (MAC) | 4/14 | | Chemrov, Kirill | | IITP RAS | |
| TGbe (MAC) | 4/14 | | Chitrakar, Rojan | | Panasonic Asia Pacific Pte Ltd. | |
| TGbe (MAC) | 4/14 | | Chng, Shi Baw | | BAWMAN LLC | |
| TGbe (MAC) | 4/14 | | Coffey, John | | Realtek Semiconductor Corp. | |
| TGbe (MAC) | 4/14 | | Dong, Xiandong | | Xiaomi Inc. | |
| TGbe (MAC) | 4/14 | | Erkucuk, Serhat | | Ofinno | |
| TGbe (MAC) | 4/14 | | Fan, Shuang | | ZTE Corporation | |
| TGbe (MAC) | 4/14 | | Fischer, Matthew | | Broadcom Corporation | |
| TGbe (MAC) | 4/14 | | GUIGNARD, Romain | | Canon Research Centre France | |
| TGbe (MAC) | 4/14 | | Ho, Duncan | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Hsu, Ostrovsky | | Xiaomi Inc. | |
| TGbe (MAC) | 4/14 | | Huang, Po-Kai | | Intel Corporation | |
| TGbe (MAC) | 4/14 | | Huq, Kazi Mohammed Saidul | | Ofinno | |
| TGbe (MAC) | 4/14 | | Ibrahim, Ahmed | | Samsung Research America | |
| TGbe (MAC) | 4/14 | | Kakani, Naveen | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Khorov, Evgeny | | IITP RAS | |
| TGbe (MAC) | 4/14 | | Kim, Jeongki | | Ofinno | |
| TGbe (MAC) | 4/14 | | kim, Jiin | | LG ELECTRONICS | |
| TGbe (MAC) | 4/14 | | Kim, Sang Gook | | LG ELECTRONICS | |
| TGbe (MAC) | 4/14 | | Kim, Sanghyun | | WILUS Inc | |
| TGbe (MAC) | 4/14 | | Kim, Yongho | | Korea National University of Transportation | |
| TGbe (MAC) | 4/14 | | Kim, Youhan | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Kishida, Akira | | Nippon Telegraph and Telephone Corporation (NTT) | |
| TGbe (MAC) | 4/14 | | Klein, Arik | | Huawei Technologies Co., Ltd | |
| TGbe (MAC) | 4/14 | | Ko, Geonjung | | WILUS Inc. | |
| TGbe (MAC) | 4/14 | | Lalam, Massinissa | | SAGEMCOM BROADBAND SAS | |
| TGbe (MAC) | 4/14 | | Lanante, Leonardo | | Ofinno | |
| TGbe (MAC) | 4/14 | | Levitsky, Ilya | | IITP RAS | |
| TGbe (MAC) | 4/14 | | Lim, Dong Guk | | LG ELECTRONICS | |
| TGbe (MAC) | 4/14 | | Lu, Liuming | | Guangdong OPPO Mobile Telecommunications Corp.,Ltd | |
| TGbe (MAC) | 4/14 | | Moon, Juseong | | Korea National University of Transportation | |
| TGbe (MAC) | 4/14 | | Mutgan, Okan | | Nokia | |
| TGbe (MAC) | 4/14 | | Naik, Gaurang | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | NANDAGOPALAN, SAI SHANKAR | | Synaptics | |
| TGbe (MAC) | 4/14 | | Ng, Boon Loong | | Samsung Research America | |
| TGbe (MAC) | 4/14 | | Ouchi, Masatomo | | Canon | |
| TGbe (MAC) | 4/14 | | Palayur, Saju | | Maxlinear Inc | |
| TGbe (MAC) | 4/14 | | Park, Eunsung | | LG ELECTRONICS | |
| TGbe (MAC) | 4/14 | | Park, Minyoung | | Intel Corporation | |
| TGbe (MAC) | 4/14 | | Patil, Abhishek | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Patwardhan, Gaurav | | Hewlett Packard Enterprise | |
| TGbe (MAC) | 4/14 | | Petrick, Albert | | InterDigital, Inc. | |
| TGbe (MAC) | 4/14 | Rosdahl, Jon | | Qualcomm Technologies, Inc. | |
| TGbe (MAC) | 4/14 | | Ryu, Kiseon | | Ofinno | |
| TGbe (MAC) | 4/14 | | Shirakawa, Atsushi | | SHARP CORPORATION | |
| TGbe (MAC) | 4/14 | | Shu, Tongxin | | Huawei Technologies Co., Ltd | |
| TGbe (MAC) | 4/14 | | Srivatsa, Veena | | Synaptics | |
| TGbe (MAC) | 4/14 | | Sun, Bo | | ZTE Corporation | |
| TGbe (MAC) | 4/14 | | Sun, Yanjun | | Qualcomm Incorporated | |
| TGbe (MAC) | 4/14 | | Tolpin, Alexander | | Intel Corporation | |
| TGbe (MAC) | 4/14 | | Torab Jahromi, Payam | | Facebook | |
| TGbe (MAC) | 4/14 | | Wang, Chao Chun | | MediaTek Inc. | |
| TGbe (MAC) | 4/14 | | Wang, Lei | | Futurewei Technologies | |
| TGbe (MAC) | 4/14 | | Wang, Qi | | Apple, Inc. | |
| TGbe (MAC) | 4/14 | | Wullert, John | | Peraton Labs | |
| TGbe (MAC) | 4/14 | | Yang, Jay | | Nokia | |
| TGbe (MAC) | 4/14 | | Yano, Kazuto | | Advanced Telecommunications Research Institute International (ATR) | |
| TGbe (MAC) | 4/14 | | Yee, James | | MediaTek Inc. | |
| TGbe (MAC) | 4/14 | | Yi, Yongjiang | | Spreadtrum Communication USA Inc. | |
| TGbe (MAC) | 4/14 | | Zhang, Jiayi | | Ofinno | |
| TGbe (MAC) | 4/14 | | Zhou, Lei | | H3C Technologies Co., Limited | |

**Submissions**

1. [526r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0526-00-00be-cr-for-miscellaneous-cids.docx) CR for Miscellaneous CIDs Po-Kai Huang [15C 15’ C.]

Discussion:

C: change any to a in the sentence.

C: the second text is a littel complicated. You can remove the AP affiliated with the AP MLD.

A: That is a text to clarify the AP.

C: You need to add the usage of protected MGMT frame. Add the note in resolution column. The protected frame can still be when PMF is not used.

C: page 10, for the last paragraph, is complicated text. Due to independent status for accepting.

A: I do say any of the links. How about changing not accept any of links to reject all links? Ok, there is related text in previous sentence.

6629 is deferred.

C: you are adding new protected action frame? Is it possible to add new all protected action frame?

A: only one EHT Action field

**SP: Do you support to accept the resolution in 11-22/526r1 for the following CIDs?**

7449, 6036, 7509, 5632, 7835,

5286, 7849, ~~6629,~~ 5633, 4270

**No objection**

1. [538r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0538-00-00be-cc36-resolution-to-cids-for-35-6.docx) CC36 resolution to CIDs for 35.6 Chunyu Hu [60C 50’]

Discussion:

C: you mention all broadcast TWTs. Non-trigger enabled TWT is also allowed?

C: Why does the r-TWT supporting STAs set the b-TWT SP to 1? Two are a little different? Not sure all B-TWT operation should be inherited by r-TWT STAs.

4708, 6334 are deferred.

C: 7620 can be deferred?

A: This is generic CID. There is other CIDs related to that issue.

C: 6897, 1224 is directly saying TDLS direct link. TWT can be setup over TDLS.

C: You are mentioning the group did not reach consensus but those CIDs are not presented.

C: 6866, it does not have underlying assumption. It does not resolve the comment. It’s a fairness issue. There are two parts in the cid. You can add some general rejection reason.

A: adding, further changes haven’t reached consensus in the group.

C: rejetion reason is a little weird.

A: fine with elaborating the reason.

C: 8052, this is to terminate rTWT SP. I have a plan to have a contribution. Can you defer it?

A: Ok

8052 is deferred.

**SP: Do you support to accept the resolution in 11-22/538r3 for the following CIDs?**

4154, 4311, 4489, 4588, ~~4708,~~ ~~4712, 4713,~~ 4716, 4718,

4720, 4721, 4764, 4765, 4766, 4768, ~~4769,~~ 4773,

4774, 4776, 4777, 5031, 5033, 5520,

5874, 5875, 5937, ~~6062~~, 6334, 6385, 6386, 6415, 6417,

6418, 6419, ~~6420, 6421,~~ 6476, 6478, 6676, 6866, 6897, 6949,

7427, 7428, 7429, 7430, ~~7620,~~ 7632, 7845, 7859, ~~8052,~~ 8063

No objection

**No other business. The teleconference was adjourned at 12:00 ET**

**Monday, April 18, 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The chair calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r20. The agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 4/18 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/18 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 4/18 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 4/18 | Ansley, Carol | Cox Communications Inc. |
| TGbe (MAC) | 4/18 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 4/18 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 4/18 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 4/18 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 4/18 | CHUN, JINYOUNG | LG ELECTRONICS |
| TGbe (MAC) | 4/18 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 4/18 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 4/18 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 4/18 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 4/18 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 4/18 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 4/18 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 4/18 | Gupta, Binita | Meta Platforms, Inc. |
| TGbe (MAC) | 4/18 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 4/18 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 4/18 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 4/18 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 4/18 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 4/18 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 4/18 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 4/18 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 4/18 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 4/18 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 4/18 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 4/18 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 4/18 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 4/18 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 4/18 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 4/18 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 4/18 | Monajemi, Pooya | Cisco Systems, Inc. |
| TGbe (MAC) | 4/18 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/18 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 4/18 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 4/18 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 4/18 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 4/18 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 4/18 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 4/18 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 4/18 | Park, Minyoung | Intel Corporation |
| TGbe (MAC) | 4/18 | Park, Sungjin | Senscomm |
| TGbe (MAC) | 4/18 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 4/18 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 4/18 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 4/18 | Rantala, Enrico-Henrik | Zeku |
| TGbe (MAC) | 4/18 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 4/18 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 4/18 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 4/18 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 4/18 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 4/18 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 4/18 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 4/18 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 4/18 | Wang, Yi-Hsiu | Zeku |
| TGbe (MAC) | 4/18 | Yang, Jay | Nokia |
| TGbe (MAC) | 4/18 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 4/18 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 4/18 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 4/18 | Zhou, Lei | H3C Technologies Co., Limited |
| TGbe (MAC) | 4/18 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1793r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1793-02-00be-cc36-cr-for-enterprise-grade-tid-mapping.docx) Comment res. for Enterprise-Grade TID Mapping Pooya Monajemi [14C 30’]

Discussion:

C: Are you planing to straw poll today?

A: I don’t wanna straw poll right.

C: I need to have time to review it.

The chair recommends to have offline discussions through email reflector due to long queue.

1. [527r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0527-00-00be-remaining-11be-cids-misc.docx) Remaining 11be CIDs-misc George Cherian [12C 15’]

Discussion:

C: 35.3.15.5. why do you add such a restriction like EHT-SIG MCS? This applied to only non-AP side?

C: you added non-HE dup below? You can also add it in above part. Response frame can be in non-HE PPDU.

A: It’s just length. So, you don’t need to describe for non-HT ppdu.

C: It’s MCS for EHT-SIG. Not for PSDU.

**SP: Do you support to accept the resolution in 11-22/0527r1 for the following CIDs?**

* 4232, 4282, 5161, 5997, 6132, 6381, 6562, 6941, 7450, 7495

No objection

1. [611r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0611-01-00be-cc36-cr-for-clause-10-and-clause-11.docx) CR for clause 10 and clause 11 Ming Gan [13C 15’]

Discussion:

C: we don’t need to add new frame for this. I think we can add just one condition in clause 11. Like if critical update flag is set to 1, then non-AP can check TIM broadcast.

4028 4030 5040 5042 were deferred.

**SP: Do you support to accept the resolution in 11-22/611r2 for the following CIDs?**

5280 6458 5309 5310 5387

4304 5287 6108 6945

No objection

1. [1973r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1973-02-00be-comment-resolution-35-1-and-35-3-1.docx) CID-spreadsheet-35-1-and-35-3-1 Carol Ansley [5C 10’ C.]

**SP: Do you support to accept the resolution in 11-21/1973r3 for the following CIDs?**

4283, 5028, 6176, 6619, 7319

No objection

1. [1825r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1825-02-00be-remaining-cr-for-35-3-15-8-1.docx) Remaining CR for 35.3.15.8.1 Dibakar Das [4C SP-5’]

Discussion:

C: T is related that you send CTS with highest rate? Can you defer?

C: what is difference between r2 and r3? Do you change the default value?

A: Yes, that’s only change.

C: Did you need to consider PHY header?

A: Yes

8184 is deferred

**SP: Do you support to accept the resolution in 11-21/1825r3 for the following CIDs?**

4836, 5127, 7782

No objection.

1. [306r4](https://mentor.ieee.org/802.11/dcn/22/11-22-0306-04-00be-cc36-cr-emlsr-misc.docx) CC36 CR EMLSR Misc. Minyoung Park [5C SP-5’]

**SP: Do you support to accept the resolution in 11-22/306r5 for the following CIDs?**

6345, 5932, 5747, 5905, 5773, 4932

No objection.

1. [308r5](https://mentor.ieee.org/802.11/dcn/22/11-22-0308-05-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-3.docx) Resolution for CIDs related to ML advertisement - P3 Abhishek Patil [6C SP-5’]

Present and some discusison.

**No other business. The teleconference was adjourned at 21:00 ET**

**Thursday, April 21, 2022, 10:00 – 12:00 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 10:03am 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) 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 agenda is approved without changes.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 4/21 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/21 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 4/21 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 4/21 | Borges, Daniel | Apple, Inc. |
| TGbe (MAC) | 4/21 | Bravo, Daniel | Intel Corporation |
| TGbe (MAC) | 4/21 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 4/21 | Cao, Rui | NXP Semiconductors |
| TGbe (MAC) | 4/21 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 4/21 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 4/21 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 4/21 | Chng, Shi Baw | BAWMAN LLC |
| TGbe (MAC) | 4/21 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 4/21 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 4/21 | Erkucuk, Serhat | Ofinno |
| TGbe (MAC) | 4/21 | Fan, Shuang | ZTE Corporation |
| TGbe (MAC) | 4/21 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 4/21 | Ghosh, Chittabrata | Facebook, Inc. |
| TGbe (MAC) | 4/21 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 4/21 | Guo, Jing | NXP Semiconductors |
| TGbe (MAC) | 4/21 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 4/21 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbe (MAC) | 4/21 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 4/21 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 4/21 | Huq, Kazi Mohammed Saidul | Ofinno |
| TGbe (MAC) | 4/21 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 4/21 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 4/21 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Kang, Sugbong | Apple, Inc. |
| TGbe (MAC) | 4/21 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 4/21 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 4/21 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 4/21 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 4/21 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 4/21 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Kipness, Michael | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 4/21 | Kishida, Akira | Nippon Telegraph and Telephone Corporation (NTT) |
| TGbe (MAC) | 4/21 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 4/21 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 4/21 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 4/21 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 4/21 | Lanante, Leonardo | Ofinno |
| TGbe (MAC) | 4/21 | Li, Jialing | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 4/21 | Lin, Zinan | InterDigital, Inc. |
| TGbe (MAC) | 4/21 | Loginov, Vyacheslav | IITP RAS |
| TGbe (MAC) | 4/21 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 4/21 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 4/21 | Malinen, Jouni | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/21 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 4/21 | Mutgan, Okan | Nokia |
| TGbe (MAC) | 4/21 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 4/21 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 4/21 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 4/21 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 4/21 | Park, Sungjin | Senscomm |
| TGbe (MAC) | 4/21 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 4/21 | Rantala, Enrico-Henrik | Zeku |
| TGbe (MAC) | 4/21 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 4/21 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 4/21 | Sato, Takuhiro | SHARP CORPORATION |
| TGbe (MAC) | 4/21 | Sethi, Ankit | NXP Semiconductors |
| TGbe (MAC) | 4/21 | Shu, Tongxin | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/21 | Sosack, Robert | Molex Incorporated |
| TGbe (MAC) | 4/21 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 4/21 | Strauch, Paul | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Thakur, Sidharth | Apple, Inc. |
| TGbe (MAC) | 4/21 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 4/21 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 4/21 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 4/21 | Wang, Qi | Apple, Inc. |
| TGbe (MAC) | 4/21 | Wei, Dong | NXP Semiconductors |
| TGbe (MAC) | 4/21 | Wu, Kanke | Qualcomm Incorporated |
| TGbe (MAC) | 4/21 | Wullert, John | Peraton Labs |
| TGbe (MAC) | 4/21 | Xin, Yan | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 4/21 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 4/21 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 4/21 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 4/21 | Yong, Su Khiong | Apple, Inc. |
| TGbe (MAC) | 4/21 | Zhang, Jiayi | Ofinno |
| TGbe (MAC) | 4/21 | Zhou, Lei | H3C Technologies Co., Limited |

**Submissions**

1. [308r7](https://mentor.ieee.org/802.11/dcn/22/11-22-0308-05-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-3.docx) Resolution for CIDs related to ML advertisement - P3 Abhishek Patil [6C SP-5’ C]

C: did you consider change parameters of BTWT?

A: it will be addressed in 11me.

C: including rTWT element is already covered by Broadcast TWT.

A: The baseline say different thing.

C: mandatory inclusion is too restrict.

A: with this, rTWT STAs will not interfere with rTWT SP.

C: change rTWT to broadcast TWT.

A: ok if the group agree.

SP: Do you support to accept the resolution in 11-21/308r7 for hte following CIDs?

4722 5915 5273 4715 4036 6876

No Objection

1. [1175r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1175-05-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-1.docx) Res. for CIDs related to ML advertisement - Part 1 Abhishek Patil [18C 20’]

SP1: which proposal do you support for perfroming ML probing?

Option 1: 11-21/1869r0 (Jason)

Option 2: 11-21/1805r4 (Liwen)

35 Option1, 56 Option2, 43 Abstain

C: ML Probe Request/Response are not good names. They will create confusion. You can use GAS.

A: using GAS is not good since it requires the GAS support. The support of GAS is not needed for ML operaiton.

C: can use other names, e.g. ML Query/Response.

C: the document is just uploaded in short time. Please defer the SP for the review.

A: the fragmentation document were in sever for long time. We need to close things.

C: put a note that the group will runng a separate SP about naming change in 1805.

SP2: Do you support to accept the resolution in 11-21/1175r5 for hte following CIDs?

4015, 5063, 4312, 4034, 5375, 8035, 4204, 7827, 8051, 7635, 5351, 5945, 6331, 6332, 7463, 4419, 6660, 8169

NOTE: Liwen will change the name of the frames and group will run a SP on his doc separately

48Y, 27N, 24A

C: we can run the non-controversial CIDs

C: please defer the SP for further review.

C: we can run the CDs of last grooup

SP3: Do you support to accept the resolution in 11-21/1175r5 for the following CIDs?

4419, 6660, 8169

No Objection

1. [551r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0551-00-00be-cc36-cr-for-misc-cids-related-to-ml-discovery-and-setup.docx) CR for Misc. CIDs related to Multi-link Disc. and Setup SunHee Baek [9C 15’]

SP: Do you support to accept the resolution in 11-22/551r0 for the following CIDs?

**5253, 5254, 5278, 5769, 6245, 6446, 6447, 6448, 6450**.

No Objection

1. [552r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0552-01-00be-cc36-cr-for-individual-twt.docx) CC36-CR-for-Individual TWT Ming Gan [7C 15’]

C: TWT start time will be TSF time of the lin where the element is transmitted. This creates complexity, e.g. when TWT element is transmitted in link1 to request TWT agreement in link1, 2, 3 and the TWT agreement is established in link2.

C: similar concern. In TWT element TWT start time is carried and is tied to the link that the element is tranmistted. The proposal requires same TSF time among all links.

A: I don’t mention that alll the links have same TSF time.

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

**Monday, April 25, 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The chair calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r22. The agenda was approved.

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

**Submissions**

1. 552r3 Ming

Summary: Going through the second parts in the doc.

Discussion:

C: 5256, this was already reflected in D1.5. It should be revised.

C: Insun is correct. You can double check it.

A: Ok.

C: 5651 can be deferred?

A: ok

5256, 5651 were deferred in the second part.

SP: Do you support to accept the resolution in 11-22/552r3 for the following CIDs?

~~5281 6240 6241 6242~~

~~5256~~ 5337 ~~5651~~

No objection

1. [1208r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1208-05-00be-cc36-resolution-for-cids-for-35-3-4-2.docx) CC36 resolution for CIDs for 35.3.4.2 Laurent Cariou [47C]

Discussion:

C:how is done in the baseline for broacast and SSID..?

A: it’s same as 11ax.

C: can you explain how this addressed the 4378?

You can defer it.

C: on p12, the MLD ID is all MLD ID?

C: 5038 is on the pooya’s doc.

A: Ok, I can defer it.

C: D1.6 is not yet released. Change it to 21/204r4

C: 6201 is not discussed. Use different reaseon.

A: The related discussion for MLME was already discussed in other docs. We decided it to resolve at next round.

C: 5328 is same.

A: I’m fine with rejected resolution now.

C: you can withdraw?

A: Ok.

C: Maximum Transmit Power is variable? Why do we need new field?

A: Backward compatibility. Existing STA does not understand reserved fields.

C: Is it 0 or 1?

A: It depends on each channel. It could have different size.

C: Can you defer it for further check?

A: Ok

C: the last bullet, although it’s set to 1, the non-AP MLD shall respect the frame in some case.

A: I can defer it and have offline discussion.

C: the broadcast BTM frame is for legacy STAs.

C: Can you remove the text because it’s not related to any CID?

A: Ok, I will remove later.

C: why do you do the addition?

C: Can you defer the related CID? 4277

A: Ok.

C: I have comment on DMS. Can you defer?

4738, 5039, 4277, 6201,5328, 4253

C: It’s touching the probe response address part.

SP: Do you support to accept the resolution in 11-21/1208r9 for the following CIDs?

7455 6195 8046 4254 4042 6264 5973 ~~4253~~ 8333 6196 5604 4043 5972 5974 6265 5050 5910 5975 4044 5605 5976 ~~4378~~ 5361 7359 6197 5210 5211

5306 6202 6631 5324 ~~5038~~ 5308 4065 5323 5325 5326 5327 6392 8183 5667 5918 ~~6201 5328~~ 6488 ~~4277~~

No objection

1. [538r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0538-03-00be-cc36-resolution-to-cids-for-35-6.docx) CC36 resolution to CIDs for 35.6 Chunyu Hu [14C]

Discussion:

C: I don’t see any benefit of set to 1.

A: ok

C: Regarding set to 2, the STA may not associate with the AP if the STA does not support. Regarding to 1, the STA can associate with the AP.

A: Need offline discussion.

C: option 1 is not there.

C: we don’t need new information. we already discussed several times. We did not agree with make it mandatory.

C: option 1 (AP preferring) seems to be useful to clients that have a choice of AP.

C: If the rTWT requirement subfield change to 2, should the associated STAs disassociate from the AP?

C: Should there be critical update?

C: This is a strange field ... should we add AP requirment for all optional fields?

A: This one is specifically important for delivering latency sensitive traffic obviously IMO.

C: So high throughput, and low power features are not important?

A: My view is anyone can raise the requirement for a feature. Feel free to bring up one.

Please take offline discussion with this issue.

1. [540r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0540-00-00be-cr-for-nstr-mobile-ap-mlo-part3.docx) CR-for-NSTR-Mobile-AP-MLO-part3 Kaiying Lu [15C]

Discussion:

C: 5850, this comment is a fair question?

A: 11be spec does not cover this. We don’t need to define any specific rule for STR mobile AP MLD. It just follows the regular AP.

C: There is some issue like power consumption.

C: You can change the rejection reason with group does not reach the consensus or like that.

The chair asked if there is any objection to extend one minute for the SP. No responds.

SP: Do you support to accept the resolution in 11-22/540r1 for the following CIDs?

4208, 4209, 5614, 5850, 7621

No objection

**No other business. The teleconference was adjourned at 21:00 ET**

**Thursday, April 28, 2022, 10:00 – 12:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair calls the meeting to order at 10:03am EDT. The Chair introduces himself and the Secretary (Jeongki Kim, Ofinno).
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     + 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))
5. The Chair asked whether there is comment about agenda in 11-22/428r24. The agenda was approved.

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

**Submissions**

1. [540r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0540-00-00be-cr-for-nstr-mobile-ap-mlo-part3.docx) CR-for-NSTR-Mobile-AP-MLO-part3 Kaiying Lu [10C 20’ C.]

Discussion:

C: Can you clarify the texts or figure for end time alignment in 35.3.16.5? May we can do work offline.

A: Ok, I can defer 5225 ,5705

C: In the previous doc, you mentioned not to use PIFS recovery on primary link for the third paragraph.

A: It’s for that PHY-RXSTART.indication is not received. This is the case that the PHY-RXSTART.indication is received.

C: I think that it’s simple not to allow the PIFS recovery on the primary link. Let’s have offline discussion.

A: Ok, I can defer 8212.

SP: Do you support to accept the resolution in 11-22/540r4 for the following CIDs?

5704, ~~5705~~, 5706, 5108, ~~5225~~, ~~5269~~, 5270, ~~8212~~, 5700

No objection

1. [601r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0601-00-00be-cr-for-cids-on-tid-to-link-mapping-part-2.docx) CR for CIDs on TID-to-Link Mapping P2 Yongho Seok [46C 50’]

Discussion:

C: The rejected reason is not clear. What is the case that all setup link are not enabled?

5247 is deferred because of long queue.

C: but remove is not disable.

C: yes, that's different. when you tear down, you are back to default mapping.

C: tear down means no TID mapping on it, right?

C: I also have the same question: in the default mapping case, all links are enabled.

C: Yes in default mapping, all TIDs are mapped to all setup links hence all setup links are in enabled state.

C: what about tear down case? need remap?

C: if you tear down, you operate under default mapping

C: Yes I'm fine with "rejected" to get back to default, but I'm wondring if there is such a case where one or more setup links is not enabled under default mode...

C: under default mode, all setup links are enabled

C: So, I think the resolution does not follow it.

C: shall send ... where .. is mapped to the same or different link set? It should be shall or may?

A: we have condition like if...

C: initiates in the first batch.

C: Other document is revising the same part.

C: I have the same comment as Yunbo.

SP: Do you support to accept the resolution in 11-22/601r2 for the following CIDs?

* 7851, 6406, 5249, 6355, 5609, 4109, 5215, 6284, 5246, 5216, 6285, 8191, 6982, 5610, 6951, 8190, 6286, 6527, 6952, 5079, 6761, 7332, 6953, ~~5247~~, 6402, 6362, 5248, 6954, 6363, 7412, 7817, 8192, 8193, 4824, 7411
* No objection

1. [0011r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0011-01-00be-cr-of-cid-7056-and-7710.docx) cr-of-cid-7056-and-7710 Yunbo Li [2C 5’]

SP: Do you support to accept the resolution in 11-22/0011r1 for the following CIDs?

* 7056

No objection

1. [0139r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0139-00-00be-cr-for-rtwt-txop-rules.docx) CR-for-rTWT-TXOP-Rules Jason Y. Guo [4C 10’]

Discussion:

C: It depends on whether the r-TWT SP is trigger-enabled or not. Non-trigger-enabled is ok but we need to keep the rule in trigger-enabled.

A: ok

C: I want to keep the current rule due to several reasons. The member can transmit in r-TWT SP. It’s unfairness issue with other memeber STAs. Some STAs waits for r-TWT SP.

A: Regarding the first, all r-TWT STAs should follow the r-TWT rules?

C: agree with kumail. since the current focus of r-twt mostly seem to be about trigger-enabled, maybe we should discuss enhancements for non-trigger enabled in r2

C: similar unfairness problem in trigger and non-trigger enabled case.

The first 3 CIDs are deferred.

C: We already had long discussion on priortization vs. Restriction in r-TWT SP. We finally decdied the prioritization. There was fariness issue on restriction. The latency sensitive traffic should be prioritized.

A: The performance point of view, the latency sensitive traffic can be delayed.

C: the second sentence needs more offline discussion.

C: This brings ineffiency especially in no latency sensitive traffic. The prioritization is more efficient. There is already a mechanism to terminate the SP.

A: Not sure we can use the existing method.

C: I think the non-trigger-enabled case is reasonable. We can have more discussion on the second text.

1. [1931r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1931-01-00be-cc36-cr-on-cid-4296-ess-report-element.docx) CC36 CR on CID 4296 ESS Report Element Guogang Huang [1C 10’]

Discussion:

C: Do we need two addtional fields? Planned ESS for one link and Planned ESS for all link?

C: The NOTE has SHALL statement ! Edge Of ESS For MLDs shall set to the same value" change to "can set"

1. [0200r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0200-00-00be-cc36-cr-for-qos-characteristics-element.docx) CC36 CR for QoS Characteristics element Duncan Ho [1C 10’]

Not finished.

**No other business. The teleconference was adjourned at 12:00 ET**