IEEE P802.11
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc teleconferences, Sept to Nov 2021 |
| Date: 2021-09-22 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
| Jeongki Kim | Ofinno |  |  |  |
|  |  |  |  |  |

Abstract

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

Revisions:

* Rev0: Added the minutes from the telephone conferences held on Sept 22, Sept 23.
* Rev1: Added the minutes from the telephone conferences held on Sept 27
* Rev2: Added the minutes from the telephone conferences held on Sept 30
* Rev3: Added the minutes from the telephone conferences held on Oct 11
* Rev4: Added the minutes from the telephone conferences held on Oct 14
* Rev5: Added the minutes from the telephone conferences held on Oct 18
* Rev6: Added the minutes from the telephone conferences held on Oct 20, Oct 21
* Rev7: Added the minutes from the telephone conferences held on Oct 25, Oct 28

**Wednesday 22 pet 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

MAC Ad-Hoc Chair, Jeongki Kim, calls meeting to order.

Alfred Asterjadhi will be secretary for the call today.

Chair goes over the patent policy and calls for potentially essential patents.

Nobody spoke up.

Chair goes over the copyright policy

Chair provides an overview of the agenda and asks if there is any discussion on it.

Chair asks if there is any objection to approve the agenda ([1478r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1478-04-00be-sept-nov-tgbe-teleconference-agenda.docx)) by unanimous consent.

No objections were heard or noted in the chat. Hence agenda is approved with unanimous consent.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 9/22 | Abouelseoud, Mohamed | Sony Corporation |
| TGbe (MAC) | 9/22 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 9/22 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 9/22 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 9/22 | Barr, David | MaxLinear |
| TGbe (MAC) | 9/22 | Bravo, Daniel | Intel Corporation |
| TGbe (MAC) | 9/22 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 9/22 | CHAN, YEE | Facebook |
| TGbe (MAC) | 9/22 | Chemrov, Kirill | IITP RAS |
| TGbe (MAC) | 9/22 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 9/22 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 9/22 | Derham, Thomas | Broadcom Corporation |
| TGbe (MAC) | 9/22 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 9/22 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 9/22 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 9/22 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 9/22 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 9/22 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 9/22 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 9/22 | Hervieu, Lili | Cable Television Laboratories Inc. (CableLabs) |
| TGbe (MAC) | 9/22 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 9/22 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 9/22 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 9/22 | Jang, Insun | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Joh, Hanjin | KT Corp. |
| TGbe (MAC) | 9/22 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 9/22 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 9/22 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 9/22 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 9/22 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Lorgeoux, Mikael | Canon Research Centre France |
| TGbe (MAC) | 9/22 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 9/22 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 9/22 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 9/22 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 9/22 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 9/22 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 9/22 | PANG, KUN | Honor Device Co.,Ltd. |
| TGbe (MAC) | 9/22 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 9/22 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 9/22 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 9/22 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 9/22 | Rege, Kiran | Perspecta Labs |
| TGbe (MAC) | 9/22 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 9/22 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 9/22 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 9/22 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | THOUMY, Francois | Canon |
| TGbe (MAC) | 9/22 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 9/22 | Tsujimaru, Yuki | Canon Inc. |
| TGbe (MAC) | 9/22 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 9/22 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 9/22 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 9/22 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 9/22 | Yang, Jay | Nokia |
| TGbe (MAC) | 9/22 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 9/22 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 9/22 | yi, yongjiang | Spreadtrum Communication USA Inc. |

**Submissions**

* [**1275r5**](https://mentor.ieee.org/802.11/dcn/21/11-21-1275-05-00be-cc36-cr-for-d1-0-proxy-arp-cids.docx) **(Rojan Chitrakar, CR for 3 CIDs)**
	+ Author provides an overview of the changes made to the document based on received feedback. Changes are highlighted in grey in the doc.
	+ Chair asks if there is any discussion on this document.
	+ Clarification question how STA6 connect to the AP MLD.
	+ STA6 is connected via an ethernet connection.
	+ Do you call it a STA or device then?
	+ Some more clarificatory discussion on this particular topic in terms of terminology.

SP: Do you agree to incorporate the resolution provided in [IEEE 802.11-21/1275r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1275-05-00be-cc36-cr-for-d1-0-proxy-arp-cids.docx) to the next revision of 802.11be draft for the following CIDs:

* 6715, 6716, 7890

Discussion: Some clarification on the wording. Amended to say resolution rather than changes.

Result: No objection.

* [**1360r1**](https://mentor.ieee.org/802.11/dcn/21/11-21-1360-01-00be-cc-36-cr-for-35-3-11-and-35-3-12.docx) **(Po-Kai Huang, CR for 19 CIDs)**
	+ Author starts from where he left last time, namely resolution for CID 6681.
	+ Question on CID the changes related to 6681 batch that the behavior should be w.r.t. the MLD, not the STA affiliated with it.
	+ Answer: The reference to the “STA affiliated to” is so that it is aligned with baseline, which refers to STA.
	+ Question: Why is the column for “Transmitter Requirement” empty? Answer: It is inherited from the baseline, where it is also empty.
	+ Some discussion on CID 6736, ending up agreeing with the proposed resolution.
	+ Suggestion by member to apply the resolution for CID 7512 throughout the draft (i.e., replace “an STA” with “a STA”). Author agrees and incorporates the suggestion.
	+ Some editorial suggestion on whether “Any STA” or “No STA”. Result of that suggestion lead to rejecting CIDs 8200 and 8202.
	+ Another question on the changes w.r.t. “TR1”. Author highlights that CID 6691 is still to be discussed so it is deferred for now.

SP: Do you agree to incorporate the resolution provided in [1360r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1360-02-00be-cc-36-cr-for-35-3-11-and-35-3-12.docx) to the next revision of 802.11be draft for the following CIDs:

* 6029, 6030, 6679, 6680, 6682, 6683, 6710, 7512, 6308, 6736, 8200, 8201, 8202, 8203, 8242, 8243, 8244, 6377

Discussion: None.

Result: No objection.

* [**1249r3**](https://mentor.ieee.org/802.11/dcn/21/11-21-1249-03-00be-cc36-cr-for-eht-om-part-ii.docx) **(Po-Kai Huang, CR for 6 CIDs)**
* Author goes over the document.
* Some suggestion on the changes for CID 4164 which are incorporated in r4 of the document, which will be posted in the server.

SP: Do you agree to incorporate the resolution provided in [1249r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1249-06-00be-cc36-cr-for-eht-om-part-ii.docx) to the next revision of 802.11be draft for the following CIDs:

* 8156, 6606, 5799, 8155, 5800, 4164

Discussion: None.

Result: No objection.

* **1421r0 (Insun Jang, CR for 1 CID)**
	+ Author goes over the document. It resolves one CID, namely 6729.
	+ Question: The status code also indicates the reason for the rejection, not only whether it is accepted or not. Answer: Author provides an overview of the intention of that added sentence.
	+ Some more discussion on the wording of that sentence and also some additional observations.

SP: Do you agree to incorporate the resolution provided in [1421r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1421-01-00be-cc36-cr-for-cid-6729.docx) to the next revision of 802.11be draft for the following CIDs:

* 6729

Discussion: None.

Result: No objection.

* [**1401r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1401-00-00be-resolution-for-cids-related-to-status-code-field.docx) **(Namyeong Kim, CR for 2 CIDs)**
	+ Author goes over the document. It resolves two CIDs.
	+ No discussion on the document.

SP: Do you agree to incorporate the resolution provided in [1401r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1421-01-00be-cc36-cr-for-cid-6729.docx) to the next revision of 802.11be draft for the following CIDs:

* 4006, 4290

Discussion: None.

Result: No objection.

* [**1425r2**](https://mentor.ieee.org/802.11/dcn/21/11-21-1425-02-00be-cc-36-cr-for-4-5-3.docx) **(Po-Kai Huang, CR for 37 CIDs)**
	+ Author goes over the document. Resolves 37 CIDs.
	+ Time is running out so author finished presenting up to CID 6161. Will resume next conference call to discuss the other CIDs.
* Chair asks if there is any other business.
* None was heard
* Call is adjourned.

**Thursday 23 Sept 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r6. Several changes are made per the comment(1330 deferred, 1360 added, 1327 deferred). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 9/23 | AbidRabbu, Shaima' | Istanbul Medipol University; Vestel |
| TGbe (MAC) | 9/23 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | B, Hari Ram | NXP Semiconductors |
| TGbe (MAC) | 9/23 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 9/23 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 9/23 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 9/23 | Barr, David | MaxLinear |
| TGbe (MAC) | 9/23 | Bredewoud, Albert | Broadcom Corporation |
| TGbe (MAC) | 9/23 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 9/23 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 9/23 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 9/23 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 9/23 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 9/23 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 9/23 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 9/23 | Haasz, Jodi | IEEE Standards Association (IEEE-SA) |
| TGbe (MAC) | 9/23 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 9/23 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 9/23 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 9/23 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 9/23 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 9/23 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 9/23 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 9/23 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbe (MAC) | 9/23 | Khorov, Evgeny | IITP RAS |
| TGbe (MAC) | 9/23 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 9/23 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 9/23 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 9/23 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 9/23 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 9/23 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 9/23 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 9/23 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 9/23 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 9/23 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 9/23 | LU, Yuxin | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/23 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 9/23 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/23 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 9/23 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 9/23 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 9/23 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 9/23 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 9/23 | Perez, Dan | IEEE STAFF |
| TGbe (MAC) | 9/23 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 9/23 | Rege, Kiran | Perspecta Labs |
| TGbe (MAC) | 9/23 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 9/23 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 9/23 | THOUMY, Francois | Canon |
| TGbe (MAC) | 9/23 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 9/23 | Wentink, Menzo | Qualcomm Incorporated |
| TGbe (MAC) | 9/23 | Yang, Jay | Nokia |
| TGbe (MAC) | 9/23 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 9/23 | yi, yongjiang | Spreadtrum Communication USA Inc. |

 **Submissions**

1. 1360r2

SP: Do you support to accept the resolution in 11-21/1360r2 for the following CIDs?

6681

No Onjection

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1. [1425r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1425-02-00be-cc-36-cr-for-4-5-3.docx) CC 36 CR for 4.5.3 Po-Kai Huang [37 CIDs 45’]

The author went through the document.

C: CID 8256, why is multi-link transittion under mobility scenario?

A: will use the resolution used before (ML transition is under BSS transition) and change the rejected to revised.

C: CID 4302, at least explains the difference between MLO and legacy. What the comment asked should be considered later.

C: Ok with the rejection as long as the group knows the issue.

C: for the CIDs from tomo (e.g. 7509), it may be possible for a MLD to associate with a legacy AP.

A: it is clarified that it is not allowed.

C: one-link association will fall back to legacy association.

A: this is separate discussion whether an EHT STA always belongs to MLD.

C: put in another way, do we allow single link association with ML element without Per link profile.

A: this should be separate discussion. Will derfer the CID.

**SP: Do you support to accept the resolution in 11-21/1425r3 for the following CIDs?**

* 4094, 4130, 4131, 4302, 4804, 5069, 5229, 5575, 5576, 5577, 5891, 5892, 6115, 6116, 6160, 6161, 6180, 6749, 7020, 7400, 7401, 7403, 7404, 7502, 7503, 7504, 7505, 7506, 7507, 7508, 7510, 7562, 7877, 8254, 8255, 8256, 6111, 6113

No Objection

1. [1222r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1222-00-00be-cc36-cr-for-ml-ie-usage-for-ml-setup-part-2.docx) CR for ML IE Usage for ML Setup - Part 2 Insun Jang [3 CIDs 20’]

The author went through the document.

C: why is the MLD address removed?

A: it alreayd mandatory.

C: the dissussion assumes that adding links after association is allowed. This is not allowed in 11be.

A: you are right. But I think single link association under MLD is useful.

C: Do we allow single link association without MLD is allowed?

A: yes.

C: if one link setup is done, ML element is not needed.

Several similar comments that 11be doesn’t allow the addition of links after association.

C: what does it break if single link association under MLD is allowed?

C: after MLD association, link informaiton varification under authentiation is required. However there is no link information in this case.

SP deferred

1. [1426r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1426-00-00be-cc-36-cr-for-35-3-5-1-and-35-3-5-3.docx) CR for 35.3.5.1 and 35.3.5.3 Po-Kai Huang [43 CID 45’]

The author went through the document.

C: CID 4257, the resolution doesn’t address the CID. Make it clear about either it is allowed or not allowed.

A: what is in the request is what you discoverred. Will defer the CID.

C: CID 4379, use a new name or define a new Management frame.

A: the commenter asks for to define a new management frame.

C: CID 5288, in the feedback to the commenter, how about public action frame?

A: will defer the CID.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 11:59am EDT.

**Monday 27 Sept 2021, 07:00pm – 09:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r8. Several changes are made per the comment(revision change, deferred 1222). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 9/27 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 9/27 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 9/27 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 9/27 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 9/27 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 9/27 | CHAN, YEE | Facebook |
| TGbe (MAC) | 9/27 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 9/27 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 9/27 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 9/27 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 9/27 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 9/27 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 9/27 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 9/27 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 9/27 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 9/27 | Joh, Hanjin | KT Corp. |
| TGbe (MAC) | 9/27 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 9/27 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 9/27 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 9/27 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 9/27 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 9/27 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 9/27 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 9/27 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 9/27 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 9/27 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 9/27 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 9/27 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 9/27 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 9/27 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 9/27 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 9/27 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 9/27 | PANG, KUN | Honor Device Co.,Ltd. |
| TGbe (MAC) | 9/27 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 9/27 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 9/27 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 9/27 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 9/27 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 9/27 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 9/27 | Sun, Li-Hsiang | Sony Corporation |
| TGbe (MAC) | 9/27 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 9/27 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 9/27 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 9/27 | Yang, Jay | Nokia |
| TGbe (MAC) | 9/27 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 9/27 | Yee, James | MediaTek Inc. |

 **Submissions**

1. [1425r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1425-03-00be-cc-36-cr-for-4-5-3.docx) CC 36 CR for 4.5.3 Po-Kai Huang [1CID SP-5’]

The author went through the document.

SP: Do you support to accept the resolution in 11-21/1425r3 for the following CID?

 4840

No objection

1. [1426r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1426-00-00be-cc-36-cr-for-35-3-5-1-and-35-3-5-3.docx) CR for 35.3.5.1 and 35.3.5.3 Po-Kai Huang [43 CID 45’]

The author went through the document.

C: CID 5288, you should add ”unless there are additional restriction”.

A: ok

C: we didn’t refer to related subclause when 11be say channel enabled/disabled.

A: two styles in 802.11 baseline, add reference or not.

C: CID 5299, how about change to ”may accept a requested link”.

C: this is MLD level decision. ”accept one or more...” is accurate.

A: change to ”accept a subset of...”. Is this ok to commenter?

C: it looks good.

C: CID 5647. There are many issues. One is association. Referring to baseline text which is not correct is not good. Association is the relationship with ESS.

A: ”association with AP” is used in baseline.

C: we should not use the description that is not the right way.

A: We have disagreement. Will run the SP separately.

C: 5836. The comment is good comment. The figure should be updated.

A: the normative text already cover the case. The figure is just example.

1. [395r5](https://mentor.ieee.org/802.11/dcn/21/11-21-0395-00-00be-tspec-request.pptx) TSPEC Request [SP 10’]

The author went through the document.

C: slide 5, understand the proposal. Question is what happens if the traffic flow changes?

A: the solution can be done through considering the historical information.

C: STA’s application has better knowledge of the traffic.

1. [361r3](https://mentor.ieee.org/802.11/dcn/21/11-21-0361-00-00be-ap-assisted-multi-link-synchronous-transmission.pptx) AP Assisted Multi-link Synchronous Transmission [25’]

The author went through the document.

C: slide 6, it seems that CTS-to-Self transmitted by AP2 can’t be receveid by STA2.

A: it is sent to other STAs for TXOP protection.

C: the concern is that PPDU2 may be pretty longer. It may be difficult to allign PPDU2 and CTS-to-Self.

A: the padding can be used.

1. [1929r3](https://mentor.ieee.org/802.11/dcn/20/11-20-1929-00-00be-protection-of-qos-periods.pptx) Protection of QoS periods Gaurav Patwardhan [25’]

The author went through the document.

C: slide 6, do you need new Duration field in new frame?

A: there is no need for new Duration field. Different STAs interpret the Duration filed differently.

C: Maybe MU-RTS could be used.

C: how does AP decide when to transmit such frame.

A: the frame can be combined with SP for low latency traffic, e.g. transtted at the beginning of the SP.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 09:00 pm EDT.

**Thursday 30 Sept 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r12. Several changes are made per the comment(revision change,). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 9/30 | AbidRabbu, Shaima' | Istanbul Medipol University; Vestel |
| TGbe (MAC) | 9/30 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Andersdotter, Amelia | Sky UK Group |
| TGbe (MAC) | 9/30 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Bahn, Christy | IEEE STAFF |
| TGbe (MAC) | 9/30 | Bankov, Dmitry | IITP RAS |
| TGbe (MAC) | 9/30 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 9/30 | Barr, David | MaxLinear |
| TGbe (MAC) | 9/30 | CHAN, YEE | Facebook |
| TGbe (MAC) | 9/30 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 9/30 | Choi, Jinsoo | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 9/30 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 9/30 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 9/30 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 9/30 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 9/30 | GUIGNARD, Romain | Canon Research Centre France |
| TGbe (MAC) | 9/30 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 9/30 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 9/30 | Handte, Thomas | Sony Corporation |
| TGbe (MAC) | 9/30 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 9/30 | Jung, Insik | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Kain, Carl | USDoT; Noblis, Inc. |
| TGbe (MAC) | 9/30 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbe (MAC) | 9/30 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 9/30 | Kim, Youhan | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/30 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 9/30 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 9/30 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 9/30 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Liu, Der-Zheng | Realtek Semiconductor Corp. |
| TGbe (MAC) | 9/30 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 9/30 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 9/30 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 9/30 | Martinez Vazquez, Marcos | MaxLinear Corp; MAXLINEAR INC |
| TGbe (MAC) | 9/30 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/30 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 9/30 | Mohajeri, Hessam | Cadence Design Systems, Inc. |
| TGbe (MAC) | 9/30 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbe (MAC) | 9/30 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 9/30 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 9/30 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 9/30 | Park, Eunsung | LG ELECTRONICS |
| TGbe (MAC) | 9/30 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 9/30 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 9/30 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 9/30 | Rafique, Saira | Istanbul Medipol University ; VESTEL |
| TGbe (MAC) | 9/30 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 9/30 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 9/30 | Salman, Hanadi | Istanbul Medipol University; VESTEL |
| TGbe (MAC) | 9/30 | Santulli, Jennifer | IEEE STAFF |
| TGbe (MAC) | 9/30 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 9/30 | Shafin, Rubayet | Samsung Research America |
| TGbe (MAC) | 9/30 | Shilo, Shimi | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/30 | Stacey, Robert | Intel Corporation |
| TGbe (MAC) | 9/30 | Stanley, Dorothy | Hewlett Packard Enterprise |
| TGbe (MAC) | 9/30 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 9/30 | Tsujimaru, Yuki | Canon Inc. |
| TGbe (MAC) | 9/30 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 9/30 | Yang, Bo | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 9/30 | Yang, Jay | Nokia |
| TGbe (MAC) | 9/30 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 9/30 | yi, yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 9/30 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1259r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1259-04-00be-cr-35-3-14-3-nstr-operation.docx) CR-35-3-14-3-NSTR-operation Matthew Fischer [1C SP-10’]

The author went through the change for CID7606 in the document.

C: do you still need ”...might fail... caused by its transmission on the second link.” once the definition is added?

A: add a note for deleting ” caused by its transmission on the second link” since the google doc is used.

C: add NSTR link pair in the new definition.

A: the NSTR interferance doesn’t necessarily occur between the NSTR link pair.

SP deferred

1. [1339r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1339-01-00be-cc36-cr-for-35-3-15-7.docx) CR for 35.3.15.7 Dibakar Das [32C SP-10’]

The author went through the new changes in the updated document.

SP: Do you support to accept the resolution in 11-21/1339r3 for the following CIDs?

4235, 4837, 5266, 8208, 4754, 5450, 6775, 4414, 6774, 4415, 5104, 5105, 5168, 5169, 8250, 7781, 4416, 4236, 4727, 4417, 7574, , 4728, 7779, 8210, 6321, 5106, 8351, 7783, 7780, 8171 5941 6020 7576 7573 4817 7572 5745

No Objection

1. [1224r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1224-05-00be-cc-36-cr-for-restricted-twt-setup.docx) CR for Restricted TWT Setup M. K. Haider [11C SP-10’]

The author went through the new changes in the updated document.

C: Will put some comments about P2P text in the reflector. RTWT is broadcast in nature. P2P is not broadcast.

A: It seems you agree that P2P should be supported.

C: sometimes there is only UL or DL traffic. How to deal with such case.

A: No TIDs are specificed.

C: similar question. What is the meaning of 0.

A: 0 means no low latency traffic.

C: but the text says that 0 means that all TIDs are low latency traffic.

A: the last frame will not use 0 value.

1. [1426r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1426-05-00be-cc-36-cr-for-35-3-5-1-and-35-3-5-3.docx) CR for 35.3.5.1 and 35.3.5.3 Po-Kai Huang [22C 30’]

The author went through the document.

C: CID 8222, it would be nice to defer this since some work about terminalogy is going on.

A: it seems this change doesn’t contradict with your work. I wll defer some related CIDs.

C: CID 4049. This is the group agreement. Not just for STR AP MLD.

C: agree with the comment. Two basebands with coex interface exist.

A: will do offline discussion.

SP: Do you support to accept the resolution in 11-21/1246r5 for the following CIDs?

4379, 5212, 5255, 6272, 5298, 6203, 5299, 5301, 5302, 5666, 5674, 5836,, 6112, 8222,, 6271, 6273, 6274, 6275, 8334, 8335, 8185, 6454, 6276,8186, 8187, 6452, 6453, 7366, 7386, 7459,

No Objection

SP: Do you support to accept the resolution in 11-21/1246r5 for the following CID?

5647

27Y, 4N, 27A

1. [1327r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1327-00-00be-cc36-resolution-for-cid-5154.docx) CC36-Resolution-for-CID-5154 Arik Klein [1C 20’]

The author went through the document.

C: Similar outcome with the corrent mechanism. Is the motivision for AP’s power save.

A: it is one of the reasons. Other reasons may exist.

C: Can the existing power save protocol solve the problem?

A: it is not possible since the power save is only allowed for STAs.

C: Broadcast TWT where no STAs are members of it can be used by AP.

C: if one link is disabled by AP MLD the STA MLD needs to TID to link mapping.

A: yes.

C: the change of disable/enable has many issues. We need to discuss whether the group want to go with this route. Then we can discuss the issue. AP MLD reconfiguration may address the same issue. CSA may solve the issue.

A: There is a requirement for AP to do AP power save. It is not good to only allow STAs to do power save.

C: for RNR change, why not remove the AP from RNR. It seems the new Action frame can be defined.

A: the reason for using Beacon is that the disabling is for associated STAs and unassociated STAs.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 12:00 pm EDT.

**Monday 11 Oct 2021, 07:00pm – 09:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r14. Several changes are made per the comment(deferred 1509). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 10/11 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 10/11 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Anwyl, Gary | MediaTek Inc. |
| TGbe (MAC) | 10/11 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 10/11 | Baik, Eugene | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 10/11 | CHAN, YEE | Facebook |
| TGbe (MAC) | 10/11 | Chu, Liwen | NXP Semiconductors |
| TGbe (MAC) | 10/11 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 10/11 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 10/11 | de Vegt, Rolf | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 10/11 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 10/11 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 10/11 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 10/11 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 10/11 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 10/11 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 10/11 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 10/11 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 10/11 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Kim, Jeongki | Ofinno |
| TGbe (MAC) | 10/11 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 10/11 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 10/11 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 10/11 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 10/11 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 10/11 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 10/11 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 10/11 | Lu, kaiying | MediaTek Inc. |
| TGbe (MAC) | 10/11 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 10/11 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 10/11 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 10/11 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 10/11 | Motozuka, Hiroyuki | Panasonic Corporation |
| TGbe (MAC) | 10/11 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 10/11 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 10/11 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 10/11 | PANG, KUN | Honor Device Co.,Ltd. |
| TGbe (MAC) | 10/11 | Pare, Thomas | MediaTek Inc. |
| TGbe (MAC) | 10/11 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 10/11 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 10/11 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 10/11 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 10/11 | Rezk, Meriam | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 10/11 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 10/11 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 10/11 | Strauch, Paul | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 10/11 | Tanaka, Yusuke | Sony Group Corporation |
| TGbe (MAC) | 10/11 | Taori, Rakesh | Cypress Semiconductor Corporation |
| TGbe (MAC) | 10/11 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 10/11 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 10/11 | Yang, Jay | Nokia |
| TGbe (MAC) | 10/11 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 10/11 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 10/11 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [283r2](https://mentor.ieee.org/802.11/dcn/21/11-21-0283-02-00be-cc34-cr-emlsr-part1.docx) CC34-CR-EMLSR-part 1 Minyoung Park [9C SP-10’]

The author went through the change in R2.

C: couple things of two different levels (enable/disable, eMLSR mode links) is mixed together.

A: multiple links are enabled. Part of them is in eMLSR mode.

C: In the document an AP responds to eMLSR Request frame by always accepting the request. AP should be able to reject the request.

A: If an AP is allowed to reject the request, the feature is not useful.

C: non-AP MLD’s default state is deleted, what will be the dfault state after association now?

A: it will be discussed in s separate document.

SP: Do you support to accept the resolution in 11-21/283r3 for the following CIDs?

4759, 5766, 6342, 5845, 6340, 6341, 7834, 8353, 6350

33Y, 35N, 16A

1. [287r4](https://mentor.ieee.org/802.11/dcn/21/11-21-0287-04-00be-cc34-cr-emlsr-part2.docx) EMLSR part 2 Minyoung Park [10C SP-10’]

The author went through the change in R4.

C: the method is not good. Timer-based method is better. We should do the SP about which way to go.

A: I will run SP about R2 (timer-based method) and R4 (SIFS separated method, i.e. non-timer based method).

C: the document requires that after the transition delay passes, the monitoring of multiple links will happen. But the UL frame transmission can be before the transition delay passes.

A: can do offline discussion.

C: R4 is cery clear and improvement. Support R4.

SP: Which option do you support?Option 1: EMLSR Timer based proposal (21/287r2)Option 2: SIFS separation based proposal (21/287r4)Abstain

C: can you add R3 to option 2.

A: ok.

C: confused. R3 shouldn’t be added.

A: R3/R4 is in the same direction.

Updated SP: Which option do you support?Option 1: EMLSR Timer based proposal (21/287r2)Option 2: SIFS separation based proposal (21/287r4)Abstain

30 O1, 40 O2, 22 A

1. [1330r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1330-01-00be-cc36-for-sn-indication.docx) CC36 for SN indication Jay Yang [1C 20’]

The author went through the document.

C: are group-addressed frames transmitted after DTIM Beacon or randomly?

A: Both options are coverred.

C: ”randomly” is a strong assumption. It is not likely happen. For DTIM option, if A-MPDU is used to transmit group-addressed frames, the issue you mentioned will not happen. The method creates high overhead.

A: will do offline discussion.

C: We did offline discussion. It seems I misunstand your propoal. Now I don’t have position.

SP is deferred

1. [1451r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1451-00-00be-cc36-cr-for-cids-8220-8221-and-4001.docx) CR for CIDs 8220, 8221 and 4001 Yiqing Li [3C 15’]

The author went through the document.

SP: Do you support to accept the resolution in 11-21/1451r0 for the following CIDs?

8220, 8221, 4001

No objection

1. [1416r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1416-00-00be-cr-for-txop-termination-of-nstr-mld.docx) CR-for-TXOP-Termination-of-NSTR-MLD Jason Y. Guo [4C 15’]

The author went through the document.

C: 4714, the commenter is saying different thing from your rejecting reason.

A: the rejection part is based on that the commenter asked to end its TXOP before restricted TWT.

C: CID 4714, What the commenter asks makes sense. When other link is used by NSTR non-AP MLD, the AP can’t transmit low latency traffic to the MLD.

A: multiple STAs are scheduled in restricted TWT. The AP can transmit frames to other STAs.

C: similar comment about CID 4714.

C: remove ”on the other link” and change ”if” to ”where”.

Continue the discussion of CID 4714.

SP: Do you support to accept the resolution in 11-21/1416r1 for the following CIDs?

4224, 6855

No objection.

1. [1417r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1417-00-00be-cr-for-amediumsyncthreshold.docx) CR-for-aMediumSyncThreshold Jason Y. Guo [5C 15’]

The author went through the document.

C: 44us is too short to cover all cases in the table and other cases, e.g. BA in low data rate and BA with longer BA bitmap size.

A: longer time will create issue to OBSS frame exchanges. BA with Longer BA bitmap will be transmitted by using higher MCS.

C: support what you is showing here.

C: 44us is too short. The threshold should at least more than BA with 64 BA bitmap being transmitted at 6Mbps.

.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 09:00 pm EDT.

**Thursday 14 Oct 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r16. Several changes are made per the comment(1511 deferred). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 10/14 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 10/14 | Barr, David | MaxLinear |
| TGbe (MAC) | 10/14 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 10/14 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 10/14 | Choi, Jinsoo | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | Chu, Liwen | NXP Semiconductors |
| TGbe (MAC) | 10/14 | CHUN, JINYOUNG | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 10/14 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 10/14 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 10/14 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 10/14 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 10/14 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 10/14 | Ibrahim, Ahmed | Samsung Research America |
| TGbe (MAC) | 10/14 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | Kim, Sang Gook | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | Kim, Sanghyun | WILUS Inc |
| TGbe (MAC) | 10/14 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 10/14 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 10/14 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 10/14 | Koundourakis, Michail | Samsung Cambridge Solution Centre |
| TGbe (MAC) | 10/14 | Lalam, Massinissa | SAGEMCOM BROADBAND SAS |
| TGbe (MAC) | 10/14 | Levesque, Chris | Qorvo |
| TGbe (MAC) | 10/14 | Lim, Dong Guk | LG ELECTRONICS |
| TGbe (MAC) | 10/14 | Liu, Der-Zheng | Realtek Semiconductor Corp. |
| TGbe (MAC) | 10/14 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 10/14 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 10/14 | Lumbatis, Kurt | CommScope, Inc. |
| TGbe (MAC) | 10/14 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 10/14 | Martinez Vazquez, Marcos | MaxLinear Corp; MAXLINEAR INC |
| TGbe (MAC) | 10/14 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 10/14 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 10/14 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 10/14 | Ng, Boon Loong | Samsung Research America |
| TGbe (MAC) | 10/14 | Orlando, Christian | IEEE STAFF |
| TGbe (MAC) | 10/14 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 10/14 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 10/14 | PANG, KUN | Honor Device Co.,Ltd. |
| TGbe (MAC) | 10/14 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 10/14 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 10/14 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 10/14 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 10/14 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 10/14 | Sevin, Julien | Canon Research Centre France |
| TGbe (MAC) | 10/14 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 10/14 | Sun, Bo | ZTE Corporation |
| TGbe (MAC) | 10/14 | Sun, Yanjun | Qualcomm Incorporated |
| TGbe (MAC) | 10/14 | Taori, Rakesh | Cypress Semiconductor Corporation |
| TGbe (MAC) | 10/14 | THOUMY, Francois | Canon |
| TGbe (MAC) | 10/14 | Wang, Chao Chun | MediaTek Inc. |
| TGbe (MAC) | 10/14 | Wang, Hao | Tencent |
| TGbe (MAC) | 10/14 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 10/14 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 10/14 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 10/14 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 10/14 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1443r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1443-00-00be-cc36-cr-for-retrieving-critical-update.docx) CR for Retrieving Critical Update\* Ming Gan [3C SP-15’]

The author went through the document.

C: Does Probe Request include ML Probe Request?

A: This depends on whether Liwen’s contribution will be accepted. Can add a note about it.

C: When Quiet element and channel switch element of reported link is always carried in reporting link’s Beacon, a STA is not required to use Probe Requet to solicit them. This should be clarified.

A: it will addressed in another document.

C: I think they should be addressed together. You can add the following text

 Unless the non-AP MLD has received the updated elements and fields corresponding to the critical update.

A: how does the STA know that the information is the new update?

C: It seems the intention is to guarantee the STA know the critical update before its frame transmission other than Probe Request. This may create Probe storm.

A: this is compromise solution.

C: The text seems to require a STA stop its transmission that is going on before acquiring the critical update. ”before transmitting a frame to the AP” can be removed and ”attempt to receive” should be added.

A: ok.

SP: Do you support to accept the resolution in 11-21/1443r3 for the following CIDs?

6257 6293 5257

No objection

1. [1508r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1508-01-00be-cc36-comment-resolution-multi-link-element-fragmentation.docx) CR Multi-Link element fragmentation Liwen Chu [2C 15’]

The author went through the document.

1. [1376r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1376-00-00be-pdt-multi-link-element-fragmentation.docx) pdt-Multi-Link-element-fragmentation Jason Y. Guo [PDT 15’]

The author went through the document.

C: Do you have an example how to do 5-level fragmentaion?

A: This figure shows the multi-level fragmentation. The current spec can be used.

C: it seems you want to relax the requirement of 11ai. The relaxing creates inter-op issue.

A: Baseline rules don’t consider subelement fragmentation.

1. [1251r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1251-00-00be-cc36-cr-for-9-2-4-frame-fields.docx) cc36-cr-for-9.2.4 Frame fields Jinyoung Chun [4C 10’]

The author went through the document.

C: with the added text, it is not clear about wheteher HE PPDU can solicit EHT TB PPDU and EHT PPDU can solicit HE PPDU?

C: they should be dsallowed.

SP: Do you support to accept the resolution in 11-21/1251r0 for the following CIDs?

5534, 7553

No objection

1. [1252r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1252-00-00be-cc36-cr-for-cid-4273-and-5139.docx) cc36-cr-for-CID-4273-and-5139 Jinyoung Chun [2C 10’]

The author went through the document.

SP: Do you support to accept the resolution in 11-21/1252r0 for the following CIDs?

4273, 5139

No objection

1. [1512r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1512-00-00be-cr-for-cid-8061-and-6483.docx) CR for CID 8061 and 6483 Jinyoung Chun [2C 25’]

The author went through the document.

C: this may be needed in the future. We don’t need to define it now.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 12:00 pm EDT.

**Monday 18 Oct 2021, 07:00pm – 09:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r17. Several changes are made per the comment(revision change of 1224). The modified agenda was approved.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbe (MAC) | 10/18/2021 | Adachi, Tomoko | TOSHIBA Corporation |
| TGbe (MAC) | 10/18/2021 | Ajami, Abdel Karim | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | Akhmetov, Dmitry | Intel Corporation |
| TGbe (MAC) | 10/18/2021 | Al Falujah, Iyad | ON Semiconductor |
| TGbe (MAC) | 10/18/2021 | Asterjadhi, Alfred | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | Baek, SunHee | LG ELECTRONICS |
| TGbe (MAC) | 10/18/2021 | baron, stephane | Canon Research Centre France |
| TGbe (MAC) | 10/18/2021 | Carney, William | Sony Group Corporation |
| TGbe (MAC) | 10/18/2021 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 10/18/2021 | Coffey, John | Realtek Semiconductor Corp. |
| TGbe (MAC) | 10/18/2021 | Das, Subir | Peraton Labs |
| TGbe (MAC) | 10/18/2021 | Dong, Xiandong | Xiaomi Inc. |
| TGbe (MAC) | 10/18/2021 | Fang, Yonggang | Mediatek |
| TGbe (MAC) | 10/18/2021 | Fischer, Matthew | Broadcom Corporation |
| TGbe (MAC) | 10/18/2021 | Ghosh, Chittabrata | Facebook, Inc. |
| TGbe (MAC) | 10/18/2021 | Gu, Xiangxin | Unisoc |
| TGbe (MAC) | 10/18/2021 | Gupta, Binita | Facebook |
| TGbe (MAC) | 10/18/2021 | Haider, Muhammad Kumail | Facebook |
| TGbe (MAC) | 10/18/2021 | Hamilton, Mark | Ruckus/CommScope |
| TGbe (MAC) | 10/18/2021 | Han, Jonghun | SAMSUNG |
| TGbe (MAC) | 10/18/2021 | Han, Zhiqiang | ZTE Corporation |
| TGbe (MAC) | 10/18/2021 | Ho, Duncan | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | Hu, Chunyu | Facebook |
| TGbe (MAC) | 10/18/2021 | Huang, Po-Kai | Intel Corporation |
| TGbe (MAC) | 10/18/2021 | Kakani, Naveen | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | kim, namyeong | LG ELECTRONICS |
| TGbe (MAC) | 10/18/2021 | Kim, Yongho | Korea National University of Transportation |
| TGbe (MAC) | 10/18/2021 | Klein, Arik | Huawei Technologies Co., Ltd |
| TGbe (MAC) | 10/18/2021 | Kneckt, Jarkko | Apple, Inc. |
| TGbe (MAC) | 10/18/2021 | Ko, Geonjung | WILUS Inc. |
| TGbe (MAC) | 10/18/2021 | Levy, Joseph | InterDigital, Inc. |
| TGbe (MAC) | 10/18/2021 | Lin, Yousi | Huawei |
| TGbe (MAC) | 10/18/2021 | Lou, Hanqing | InterDigital, Inc. |
| TGbe (MAC) | 10/18/2021 | Lu, Liuming | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbe (MAC) | 10/18/2021 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbe (MAC) | 10/18/2021 | Mehrnoush, Morteza | Facebook |
| TGbe (MAC) | 10/18/2021 | Moon, Juseong | Korea National University of Transportation |
| TGbe (MAC) | 10/18/2021 | Naik, Gaurang | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | Nayak, Peshal | Samsung Research America |
| TGbe (MAC) | 10/18/2021 | Nezou, Patrice | Canon Research Centre France |
| TGbe (MAC) | 10/18/2021 | Ouchi, Masatomo | Canon |
| TGbe (MAC) | 10/18/2021 | Palayur, Saju | Maxlinear Inc |
| TGbe (MAC) | 10/18/2021 | PANG, KUN | Honor Device Co.,Ltd. |
| TGbe (MAC) | 10/18/2021 | Park, Minyoung | Intel Corporation |
| TGbe (MAC) | 10/18/2021 | Patil, Abhishek | Qualcomm Incorporated |
| TGbe (MAC) | 10/18/2021 | Patwardhan, Gaurav | Hewlett Packard Enterprise |
| TGbe (MAC) | 10/18/2021 | Perez, Dan | IEEE STAFF |
| TGbe (MAC) | 10/18/2021 | Petrick, Albert | InterDigital, Inc. |
| TGbe (MAC) | 10/18/2021 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbe (MAC) | 10/18/2021 | Ratnam, Vishnu | Samsung Research America |
| TGbe (MAC) | 10/18/2021 | Rosdahl, Jon | Qualcomm Technologies, Inc. |
| TGbe (MAC) | 10/18/2021 | Ryu, Kiseon | Ofinno |
| TGbe (MAC) | 10/18/2021 | Srivatsa, Veena | Synaptics |
| TGbe (MAC) | 10/18/2021 | Taori, Rakesh | Cypress Semiconductor Corporation |
| TGbe (MAC) | 10/18/2021 | Torab Jahromi, Payam | Facebook |
| TGbe (MAC) | 10/18/2021 | Wang, Hao | Tencent |
| TGbe (MAC) | 10/18/2021 | Wang, Lei | Futurewei Technologies |
| TGbe (MAC) | 10/18/2021 | Wullert, John | Perspecta Labs |
| TGbe (MAC) | 10/18/2021 | Yang, Jay | Nokia |
| TGbe (MAC) | 10/18/2021 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbe (MAC) | 10/18/2021 | Yee, James | MediaTek Inc. |
| TGbe (MAC) | 10/18/2021 | Yi, Yongjiang | Spreadtrum Communication USA Inc. |
| TGbe (MAC) | 10/18/2021 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

**Submissions**

1. [1224r8](https://mentor.ieee.org/802.11/dcn/21/11-21-1224-07-00be-cc-36-cr-for-restricted-twt-setup.docx) CR for Restricted TWT Setup M. K. Haider [11C SP-10’]

The author went through the document for the new changes.

C: it is not clear how the negotiation happens when 5 is set in Broadcast TWT Recommendation.

A: the beacon annoucnes it. The TWT request can carry Broadcast TWT Recommendation 5 for the TWT that announces 5.

C: how can an AP know the resource request?

A: the STA announces the time that it requires.

C: Please defer 5882, will make a contribution.

A: ok.

C: What is the difference between 4 and 5 in Broadcast TWT Recommendation?

A: P2P is allowed in TWT with value 5.

C: it is not clear from the Table.

A: please provide the suggestion.

C: The TID bitmap is mandatory requirement. I assume it should be optional.

A: can defer TID to link mapping comment for further discussion.

SP: Do you support to accept the resolution in 11-21/1224r9 for the following CIDs?

4778, 6408, 4782, 4432, 5883, 5884, 5885, 4123, 5729, 5349, 5954

The author asked whether people are ok with the SP. The comment is that P2P related CIDs should need further discussion.

SP: Do you support to accept the resolution in 11-21/1224r10 for the following CIDs?

4782, 4432, 5883, 5884, 5885, 4123, 5729, 5349, 5954

No objection

1. [1444r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1444-01-00be-cr-for-intra-bss-and-inter-bss-classification.docx) CR for inter-BSS and inter-BSS PPDU class. SunHee Baek [1C 10’]

The author went through the document.

SP: Do you support to accept the resolution in 11-21/1441r1 for the following CID?

4287

No objection

1. [1483r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1483-00-00be-cc36-cr-cid-7888.docx) CC36 CR for CID 7888 Minyoung Park [1C 10’]

The author went through the document.

C: it is better to refer baseline for group frame transmission, e.g. broadcast TWT can be referred.

A: baseline is for power save mode. This is for eMLSR MLD that is not in power save mode.

C: the group-addressed BU may not buffered BU which needs to be transmitted immediately.

A: BU is buffered unit.

C: Is this applied to any MLD in eMLSR mode?

A: yes.

1. [1484r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1484-00-00be-cc36-cr-emlsr-medium-sync.docx) CC36 CR for EMLSR medium sync Minyoung Park [5C 20’]

The author went through the document.

C: do we need to always have initial control frame?

A: no for UL frame exchanges.

C: for group-addressed frame reception, the text may not be right.

A: will do offline discussion.

1. [1557r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1557-01-00be-cc36-resolution-for-cids-for-35-3-9-1.docx) Resolution for CIDs for 35.3.9.1 Laurent Cariou [11C 20’]

The author went through the document.

C: what does second bullet mean? The bullets are ok to Probe, Beacon. If the bullets are related to Action frame, it is not clear.

A: the text assumes Probe, Beacon. Will check the other cases.

C: the measurement frame should be applied here.

A: yes, the measurement frame doesn’t contain basic variant ML element.

C: prefer to mention the related frame here.

C: is this applied to cross-link management frame?

A: no.

C: ”associated” should be removed.

A: will check it whther the rules apply to unassociated case.

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1. [1300r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1300-00-00be-cc36-cr-for-str-operation.docx) CR for STR Operation Insun Jang [24C 30’]

The author requested to defer to next meeting.

1. [1586r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1586-00-00be-cc36-for-intra-ppdu-power-save.docx) CC36 for intra-PPDU power save Yuxin Lu [1C 10’]

The author went through the document.

C: the intra-PPDU power save for EHT STA should be in a separate subclause.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 08:58 pm EDT.

**Wendesday 20 Oct 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r18. Several changes are made per the comment(revision change of 1328). The modified agenda was approved.

**Submissions**

1. [283r4](https://mentor.ieee.org/802.11/dcn/21/11-21-0283-04-00be-cc34-cr-emlsr-part1.docx) CC34-CR-EMLSR-part 1 Minyoung Park [9C SP-10’]

The author went through the document for the new changes.

C: any of the link can send notification, not just link supports eMLSR, right?

A: the change doesn’t touch it. The other text mentions that the eMLSR link will transmit such notification.

C: the text is not clear.

C: if all links are enabled then link2 is disabled, will eMLSR be reestablished.

A: if the link is disabled, the link will not be used.

C: you didn’t answer the question. If link2 is enabled again, will eMLSR be reestablished.

A: the reestablishment doesn’t change the mode.

C: it is better to let the AP to send the notificaiton frame also.

A: Why do you need it?

C: AP wants the non-AP MLD to switch.

A: this is not good.

C: couldn’t follw the first comment.

A: The yellow text implies any STA can transmit the notification. The blue text assumes that the STA support eMLSR can send the notificaiton. I will do the change in yellow text if people are ok.

C: prefer follow yellow part text.

C: this change needs more thinking.

A: the change should be ok.

C: I have some question about the CIDs in the list of link bitmap. What if the link has no TID being mapped?

A: the enable links will be used.

SP: Do you support to accept the resolution in 11-21/283r5 for the following CIDs?

4759, 5766, 6342, 5845, 6340, 6341, 7834, 8353, 6350

33Y, 20N, 40A

1. [287r5](https://mentor.ieee.org/802.11/dcn/21/11-21-0287-05-00be-cc34-cr-emlsr-part2.docx) EMLSR part 2 Minyoung Park [10C SP-10’]

The author went through the document for the new changes.

C: keeping BAR, BA can provide flexibility, e.g. for legacy STAs.

A: personally have no issue with that.

C: The BA could be transmitted from hidden STAs. The AP doesn’t know whether other STA switches back to MLSR mode.

C: similar comment.

C: support to add BAR, BA back.

SP: Do you support to include the following BAR/BA rules, which was in doc 287r4, to doc 287r5?"- a BlockAckReq frame that has the TA equal to the MAC address of the AP affiliated with the AP MLD. - a BlockAck frame that has the RA equal to the MAC address of the AP affiliated with the AP MLD."

27Y, 34N, 32A

1. [1300r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1300-01-00be-cc36-cr-for-str-operation.docx) CR for STR Operation Insun Jang [24C 30’]

The author went through the document.

SP: Do you support to accept the resolution in 11-21/1300r1 for the following CIDs?

4925, 5840, 7062, 4214, 7855, 4470, 6985, 7516, 4401, 6852, 4471, 4750, 6986, 7517, 4472, 4724, 6140, 6853, 5839, 6309, 6493, 4725, 4215, 7610

No objection

1. [1587r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1587-00-00be-cc36-cr-for-listen-interval.docx) CR for listen interval Ming Gan [20C 25’]

The author went through the document.

C: ”units of the maxmal value” doesn’t make sense.

A: can improve later.

C: gneral question. The AP can reject the request since the value is too large. Is the ”large value” implementation dependent.

A: the behavior is ”may reject”. The baseline has similar rule.

SP: Do you support to accept the resolution in 11-21/1587r2 for the following CIDs?

5195 5265 8038 8199 8343 5263 5264 5693 5921 5991 6304 6374 6886 6375 6768 7420 7421 8198 8240 8241

No objection

1. 1591r0 Multi-Link Association Terminology Payam Torab [3C 10’]

The author went through the document.

C: I like the direction. The table for listed changes is not enough.

C: D1.2 already change setpup to MLD association. Calling association may not be good. The changes are not all editorial.

C: fine with it except removing setup before link.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 11:59am EDT.

**Thursday 21 Oct 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r20. Several changes are made per the comment(1511 deferred). The modified agenda was approved.

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

**Submissions**

1. [1586r2](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmentor.ieee.org%2F802.11%2Fdcn%2F21%2F11-21-1586-02-00be-cc36-for-intra-ppdu-power-save.docx&data=04%7C01%7Cliwen.chu%40nxp.com%7Cf7c44bd157a74530300408d994ac7a23%7C686ea1d3bc2b4c6fa92cd99c5c301635%7C0%7C1%7C637704290767630743%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=RHeSwze%2Bzf66TTPC38Am%2FX1WPlm0WYv9n8n4xExu1tI%3D&reserved=0) CC36 for intra-PPDU power save                     Yuxin Lu              [1C SP-10’]

The author went through the document for the new changes.

C: the case of eMLSR/eMLMR should be added since one link’s TXOP will make another link’s STA unavailable.

A: will do offline discussion

1. [1601r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1601-00-00be-cc36-comment-resolution-subclause-35-3-7-2.docx) Comment resolution subclause 35.3.7.2 Liwen Chu [22C 25’]

The author went through the document.

1. [1609r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1609-00-00be-cr-for-cid-4924-5186-5190-6041-6042.doc) CR for CID 4924, 5186, 5190, 6041, 6042 Po-Kai Huang [5C 15’]

The author went through the document.

C: When ”From DS” and ”To DS” are both are 1, are there one AP MLD or two AP MLDs?

A: one AP MLD.

SP: Do you support to accept the resolution in 11-21/1609r0 for the following CIDs?

4924, 5186, 5190, 6041, 6042

No objection

1. [1238r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1238-01-00be-cc36-resolution-for-clause-35-11-2-2.docx) CC36-Resolution-for-clause-35.11.2.2 Arik Klein [43C 45’]

The author went through the document.

C: Does ”shall implement” mean ”shall invoke”?

A: will change to ”shall invoke”.

C: We need to first decide whether STA affiliated with MLD will be mandatory requirement, then move forward.

A: ok.

C: CID 5861. It seems you require that the unassociated MLD’s states are kept in AP MLD. This is not possible.

A: ok, will remove it.

C: CID 4175, change ”shall only” to ”is allowed”.

C: change ”shall only” to ”shall”, and change ”if” to ”only if”.

C: do the same change in the previous paragraph.

A: ok.

C: change ”shall” to ”shall be capable”, or add condition when to do it.

A: will do offline idscussion.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 11:59am EDT.

**Monday 25 Oct 2021, 07:00pm – 09:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:02pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r22. Several changes are made per the comment(). The modified agenda was approved.

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

**Submissions**

1. [1557r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1557-03-00be-cc36-resolution-for-cids-for-35-3-9-1.docx) Resolution for CIDs for 35.3.9.1 Laurent Cariou [11C SP-10’]

The author went through the document for the new changes.

C: there are other MLD level management frames that carry per link information.

A: other placces may have related language.

C: Request frame should be applied.

C: the language only applies to response.

C: change ”if the all the following conditions...” to ”only if...”.

A: ok.

C: should probe response be ML probe response?

A: here we cover two cases, ML probe response and normal probe response.

C: it is better to not list the frame type, but mention the frame that include ML element.

SP: Do you support to accept the resolution in 11-21/1557r6 for the following CIDs?

4112 4461 4747 5837 6208 6404 6732 7461 7818 7853 7884

No objection

1. [1586r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1586-03-00be-cc36-for-intra-ppdu-power-save.docx) CC36 for intra-PPDU power save Yuxin Lu [1C SP-5’]

The author went through the document for the new changes.

SP: Do you support to accept the resolution in 11-21/1586r3 for the following CID?

5034

No objection

1. [1610r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1610-00-00be-srs-control-crs.docx) SRS Control CRs George Cherian [31C 35’]

The author went through the document for the new changes.

C: CID 5997, EHT SIG-B MCS should be considered.

A: can defer it.

C: for non-HT duplicate response, this was discussed before. Non-HT duplicate PPDU is not easy to align.

A: if same length can be acquired by non-HT duplicate PPDU, why do you disallow it?

C: Do you want SRS to be in HE/VHT PPDU?

A: will consider it later.

SP: Do you support to accept the resolution in 11-21/1610r1 for the following CID?

- 4139, 4229, 4230, 4231, , 4411, 4480, 4481, 5197, 5198, - 5231, 5438, 5654, 5824, 5927, 5928, 5995, 5996, , 6380, - 6382, 6484, 6560, 6561, , 6688, 6739, 7326, 7807, - 7808.

No objection

1. [1657r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1657-00-00be-tgbe-cc36-misc-comment-resolutions.docx) TGbe CC36 Misc. Comment Resolutions Montemurro [5C 10’]

The author went through the document for the new changes.

C: for mesage 3, what is exactly verified? The language is not clear to me.

C: how about changing available to supported? You can remove ”verify the MAC addess...” at the end since it isalready cover it.

A: ok for removing. ”available” is the right term. Two Beacons in two links without ML probe should be ok.

C: You can delete ”accetped link and other” from the sentense.

A: prefer the current text.

C: please defer 5191, 6184. It is better to not delete the note.

A: ok

1651 was deferred per the request rom the author.

1. [1659r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1659-01-00be-cc36-resolution-for-cid-4002.docx) Resolution for CID 4002 Gaurang Naik [1C 10’]

The author went through the document for the new changes.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 11:59am EDT.

**Thursday 28 Oct 2021, 10:00am – 12:00pm EDT (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting takes place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:02am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
	1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
	* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu (liwen.chu@nxp.com) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
5. The Chair asks whether there is comment about agenda in 11-21/1478r23. Several changes are made per the comment(rvision updated of 1238, 1577). The modified agenda was approved.

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

**Submissions**

1. [283r5](https://mentor.ieee.org/802.11/dcn/21/11-21-0283-05-00be-cc34-cr-emlsr-part1.docx) CC34-CR-EMLSR-part 1 Minyoung Park [9C SP-5’]

The author announced no change to document and will rerun the SP.

SP: Do you support to accept the resolution in 11-21/283r5 for the following CIDs?

4759, 5766, 6342, 5845, 6340, 6341, 7834, 8353, 6350

39Y, 6N, 28A

1. [1659r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1659-01-00be-cc36-resolution-for-cid-4002.docx) Resolution for CID 4002 Gaurang Naik [5C SP-10’]

The author went through the document for the new changes.

C: there are multiple authentication methods. Different methods need different information.

A: MLD address is requried for all methods.

C: In FT, Association that follows authentiacation will carry the link information.

C: the authentication needs to carry the information other than MLD address in FT. Ok to move forward with the current text, the rules can be updated in the future.

SP: Do you support to accept the resolution in 11-21/1659r2 for the following CIDs?

4002, 5279, 5984, 6278, 5176

No objection

1. [1512r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1512-01-00be-cr-for-cid-8061-and-6483.docx) CR for CID 8061 and 6483 Jinyoung Chun [2C SP-5’]

The author went through the document for the new changes.

SP: Do you support to accept the resolution in 11-21/1512r1 for the following CIDs?

8061, 6483

No objection

1. [1238r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1238-02-00be-cc36-resolution-for-clause-35-11-2-2.docx) CC36-Resolution-for-clause-35.11.2.2 Arik Klein [43C 25’]

The author went through the remaining CIDs in the document.

C: add ”re” before association so that reassociation can be covered.

A: ok.

C: the text about the addressing of NSEP priority access enbale request frame can be simplified since this is after the association.

A: can do offline discussion.

C: 5619 is addressed by other document and some offline discussion is going on.

A: will remove this CID from the document.

C: 5856, it should be relate tear down case, right?

A: it is about the initiating of the service.

:C will talk offline.

C: 5865, how do you do NSEP with unauthorised STAs?

A: the higher layer can make such decision.

C: 5626, the behavior is defined in other place. This should be rejected.

A: will take out this CID.

C: 5869 should be rejected. A STA that does not support the feature will never reeiev it.

A: will do offline discussion for this.

C: 5865 should be deferred for further discussion.

A: ok.

C: 4442 shoudl be revised.

A: ok.

1. [1561r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1561-00-00be-cc36-cr-for-cid-6630.docx) CR for CID 6630 Po-Kai Huang [1C 10’]

The author went through the document for the new changes.

The chair asks whether there is any other business before adjourning the session. Nobody responds.

The meeting is adjourned at 11:59am EDT.