IEEE P802.11  
Wireless LANs

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| TGbe September to November 2021 teleconference minutes | | | | |
| Date: 2021-09-29 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Dennis Sundman | Ericsson |  |  | dennis.sundman@ericsson.com |
|  |  |  |  |  |

Abstract

This document contains the minutes for September to November 2021 TGbe teleconferences.

Revisions:

* Rev0: First revision of the document.
* Rev1: Added minutes for Joint call the 13th of October.
* Rev2: Added minutes for the Joint call the 27th of October.
* Rev3: Added references to all MAC and PHY ad-hocs.

# 5th Conf. Call: Sept 22 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 6th Conf. Call: Sept 23 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 7th Conf. Call: Sept 27 (19:00–21:00 ET)

Split PHY and MAC:

* PHY: <https://mentor.ieee.org/802.11/dcn/21/11-21-1594-04-00be-minutes-of-802-11be-phy-ad-hoc-meetings-september-to-november-2021.docx>
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 8th Conf. Call: Sept 29 (10:00–12:00 ET)

1. The Chair, Alfred Asterjadhi (Qualcomm) calls the meeting to order at 10:02 ET.
2. IEEE 802 and 802.11 IPR policy and procedure
   1. Patent Policy: Ways to inform IEEE:

* Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
* Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
* Speak up now and respond to this Call for Potentially Essential Patents
* If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair. **Nobody speaks/writes up.**

1. The Chair goes through the **Copyright Policy**: Participants are advised that
   1. IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) of the IEEE SA Standards Board Operations Manual;
   2. Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy
2. **Patent, Participation, Copyright and policy related subclause:** The Chair goes through the *Patent And Procedures* section in [1478r11](https://mentor.ieee.org/802.11/dcn/21/11-21-1478-11-00be-sept-nov-tgbe-teleconference-agenda.docx).
3. Attendance reminder.
   1. Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   2. 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.
   3. If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman ([dennis.sundman@ericsson.com](mailto:dennis.sundman@ericsson.com)) and Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
   4. Please ensure that the following information is listed correctly when joining the call:
      1. "[voter status] First Name Last Name (Affiliation)"

AbidRabbu, Shaima' Istanbul Medipol University; Vestel

Aio, Kosuke Sony Corporation

Ajami, Abdel Karim Qualcomm Incorporated

Ansley, Carol Cox Communications Inc.

Asterjadhi, Alfred Qualcomm Incorporated

Au, Kwok Shum Huawei Technologies Co., Ltd

B, Hari Ram NXP Semiconductors

Bankov, Dmitry IITP RAS

Barr, David MaxLinear

Bredewoud, Albert Broadcom Corporation

Carney, William Sony Group Corporation

CHAN, YEE Facebook

Chemrov, Kirill IITP RAS

Choi, Jinsoo LG ELECTRONICS

Chu, Liwen NXP Semiconductors

CHUN, JINYOUNG LG ELECTRONICS

Chung, Chulho SAMSUNG

Coffey, John Realtek Semiconductor Corp.

Dong, Xiandong Xiaomi Inc.

feng, Shuling MediaTek Inc.

Fischer, Matthew Broadcom Corporation

Gao, Ning Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Gu, Xiangxin Unisoc

Haider, Muhammad Kumail Facebook

Han, Zhiqiang ZTE Corporation

Handte, Thomas Sony Corporation

Ho, Duncan Qualcomm Incorporated

Hsieh, Hung-Tao MediaTek Inc.

Hu, Chunyu Facebook

Huang, Lei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Huang, Po-Kai Intel Corporation

Ibrahim, Ahmed Samsung Research America

Jeon, Eunsung SAMSUNG ELECTRONICS

Jung, Insik LG ELECTRONICS

Kamel, Mahmoud InterDigital, Inc.

kim, namyeong LG ELECTRONICS

Kim, Sang Gook LG ELECTRONICS

Kim, Sanghyun WILUS Inc

Kim, Yongho Korea National University of Transportation

Kim, Youhan Qualcomm Incorporated

Klein, Arik Huawei Technologies Co., Ltd

Ko, Geonjung WILUS Inc.

Lalam, Massinissa SAGEMCOM BROADBAND SAS

Lee, Hong Won LG ELECTRONICS

Li, Jialing Qualcomm Technologies, Inc.

Li, Yapu Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Lim, Dong Guk LG ELECTRONICS

Liu, Der-Zheng Realtek Semiconductor Corp.

Lorgeoux, Mikael Canon Research Centre France

Lu, kaiying MediaTek Inc.

Lu, Liuming Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Luo, Chaoming Beijing OPPO telecommunications corp., ltd.

Memisoglu, Ebubekir Istanbul Medipol University; Vestel

Montreuil, Leo Broadcom Corporation

Moon, Juseong Korea National University of Transportation

Nayak, Peshal Samsung Research America

Nezou, Patrice Canon Research Centre France

Ng, Boon Loong Samsung Research America

noh, yujin Senscomm

Ouchi, Masatomo Canon

Ozbakis, Basak VESTEL

Palayur, Saju Maxlinear Inc

Park, Eunsung LG ELECTRONICS

Patil, Abhishek Qualcomm Incorporated

Patwardhan, Gaurav Hewlett Packard Enterprise

Perez, Dan IEEE STAFF

Petrick, Albert InterDigital, Inc.

Rafique, Saira Istanbul Medipol University ; VESTEL

Ratnam, Vishnu Samsung Research America

Redlich, Oded Huawei Technologies Co., Ltd

Rosdahl, Jon Qualcomm Technologies, Inc.

Schelstraete, Sigurd MaxLinear

Sevin, Julien Canon Research Centre France

Shilo, Shimi Huawei Technologies Co., Ltd

Solaija, Muhammad Sohaib Istanbul Medipol University; Vestel

Stanley, Dorothy Hewlett Packard Enterprise

SUH, JUNG HOON Huawei Technologies Co., Ltd

Sun, Li-Hsiang Sony Corporation

Torab Jahromi, Payam Facebook

Varshney, Prabodh Nokia

Verenzuela, Daniel Sony Corporation

Wang, Huizhao Quantenna Communications, Inc.

Wang, Lei Futurewei Technologies

Wu, Tianyu Apple, Inc.

Wullert, John Perspecta Labs

Yang, Jay Nokia

Yang, Steve TS MediaTek Inc.

Yano, Kazuto Advanced Telecommunications Research Institute International (ATR)

Yee, James MediaTek Inc.

yi, yongjiang Spreadtrum Communication USA Inc.

Zhang, Yan NXP Semiconductors

Zhou, Pei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

1. Announcements:
   1. Next week is IEEE 802.11be vacation.
2. Agenda.
   1. Added two technical submissions: MAC CRs.
   2. Agenda approved with unanimous consent.
3. Technical Submissions**: CRs**
   1. [**1488r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1488-00-00be-cr-trigger-frame-eht-user-info-field-9-3-1-22-1-2-2.docx) **CR Trigger Frame EHT User Info Field Yanjun Sun [30C 30’]**

Yanjun goes through the CRs. Some live updates in the group. Discussions mainly regarding the use of term “Any” in some specification tables.

SP: Do you agree to resolve the following CIDs listed in [1488r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1488-01-00be-cr-trigger-frame-eht-user-info-field-9-3-1-22-1-2-2.docx) and incorporate the text changes into the latest TGbe draft?

* 8074, 7391, 5204, 7688, 7689, 4506, 7029, 4880, 4882, 7908, 7030, 4582, 7354, 7032, 7031, 7027, 7033, 5797, 7034, 5798, 7402, 7353, 4326, 4325, 7897, 5796, 7026, 7907, 7904, 4881

Result: Straw poll supported with no objection from the group.

* 1. [**1592r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1592-00-00be-cr-trigger-frame-padding.docx) **CR Trigger frame padding Yanjun Sun [1C 15’]**

Yanjun goes through the CRs. Some comments from the group regarding the CR. Also some live updates. Further updates to be made offline.

1. Technical Submissions:
   1. [**1046r3**](https://mentor.ieee.org/802.11/dcn/21/11-21-1046-03-00be-multi-ap-twt-information-sharing.pptx) **Multi-AP: TWT Information Sharing Ahmed Ibrahim [20’]**

Summary: The authors propose that APs may collaborate in setting the restricted TWT to protect certain type of traffic.

Discussion:

C: We have many types of transmissions, is that taken into consideration in this proposal?

C: This is a high level contribution and we are not restricting the types of transmissions.

C: What is the motivation here? We want more protection to the restricted TWT? What is the OBSS AP going to do with this information?

A: One motivation is to add more protection to the restricted TWT.

C: But you can only control the DL right?

Discussion not finished. The chair asks to follow up the discussion offline.

1. AoB:
   1. Those of you who are on AT&T, that’s because there is a group of MS e-mail providers that have blacklisted our IEEE servers. The emails will thus not be delivered until we have resolved it.
2. The Chair wishes everyone a nice holiday next week. Adjourned at 12:01 ET.

# 9th Conf. Call: Sept 30 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 10th Conf. Call: Oct 11 (19:00–21:00 ET)

Split PHY and MAC:

* PHY: <https://mentor.ieee.org/802.11/dcn/21/11-21-1594-04-00be-minutes-of-802-11be-phy-ad-hoc-meetings-september-to-november-2021.docx>
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 11th Conf. Call: Oct 13 (10:00–12:00 ET)

1. The Chair, Alfred Asterjadhi (Qualcomm) calls the meeting to order at 10:02 ET.
2. IEEE 802 and 802.11 IPR policy and procedure
   1. Patent Policy: Ways to inform IEEE:

* Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
* Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
* Speak up now and respond to this Call for Potentially Essential Patents
* If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair. **Nobody speaks/writes up.**

1. The Chair goes through the **Copyright Policy**: Participants are advised that
   1. IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) of the IEEE SA Standards Board Operations Manual;
   2. Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy
2. **Patent, Participation, Copyright and policy related subclause:** The Chair goes through the *Patent And Procedures* section in [1478r16](https://mentor.ieee.org/802.11/dcn/21/11-21-1478-16-00be-sept-nov-tgbe-teleconference-agenda.docx).
3. Attendance reminder.
   1. Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   2. 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.
   3. If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman ([dennis.sundman@ericsson.com](mailto:dennis.sundman@ericsson.com)) and Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
   4. Please ensure that the following information is listed correctly when joining the call:
      1. "[voter status] First Name Last Name (Affiliation)"

Aboulmagd, Osama Huawei Technologies Co., Ltd

Ajami, Abdel Karim Qualcomm Incorporated

Ansley, Carol Cox Communications Inc.

Au, Kwok Shum Huawei Technologies Co., Ltd

B, Hari Ram NXP Semiconductors

Baek, SunHee LG ELECTRONICS

Bankov, Dmitry IITP RAS

baron, stephane Canon Research Centre France

Cao, Rui NXP Semiconductors

Carney, William Sony Group Corporation

Chitrakar, Rojan Panasonic Asia Pacific Pte Ltd.

Choi, Jinsoo LG ELECTRONICS

CHUN, JINYOUNG LG ELECTRONICS

Chung, Chulho SAMSUNG

Coffey, John Realtek Semiconductor Corp.

Das, Subir Peraton Labs

Dong, Xiandong Xiaomi Inc.

Duan, Ruchen SAMSUNG

Fang, Yonggang Mediatek

Fischer, Matthew Broadcom Corporation

Gao, Ning Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Gu, Xiangxin Unisoc

Haider, Muhammad Kumail Facebook

Han, Jonghun SAMSUNG

Han, Zhiqiang ZTE Corporation

Handte, Thomas Sony Corporation

Ho, Duncan Qualcomm Incorporated

Hsieh, Hung-Tao MediaTek Inc.

Hu, Shengquan MediaTek Inc.

Huang, Lei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Huang, Po-Kai Intel Corporation

Jang, Insun LG ELECTRONICS

Jeon, Eunsung SAMSUNG ELECTRONICS

Jung, Insik LG ELECTRONICS

Kakani, Naveen Qualcomm Incorporated

Kamel, Mahmoud InterDigital, Inc.

Khorov, Evgeny IITP RAS

Kim, Myeong-Jin SAMSUNG

kim, namyeong LG ELECTRONICS

Kim, Sang Gook LG ELECTRONICS

Kim, Sanghyun WILUS Inc

Kim, Yongho Korea National University of Transportation

Kim, Youhan Qualcomm Incorporated

Klein, Arik Huawei Technologies Co., Ltd

Ko, Geonjung WILUS Inc.

Lalam, Massinissa SAGEMCOM BROADBAND SAS

Lee, Hong Won LG ELECTRONICS

Levesque, Chris Qorvo

Li, Yapu Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Lin, Zinan InterDigital, Inc.

LIU, CHENCHEN Huawei Technologies Co., Ltd

Liu, Der-Zheng Realtek Semiconductor Corp.

Liu, Jianhan MediaTek Inc.

Lu, kaiying MediaTek Inc.

Lu, Liuming Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Luo, Chaoming Beijing OPPO telecommunications corp., ltd.

Lyakh, Mikhail ON Semiconductor

Ma, Li MediaTek Inc.

Montemurro, Michael Huawei Technologies Co., Ltd

Montreuil, Leo Broadcom Corporation

Moon, Juseong Korea National University of Transportation

Nayak, Peshal Samsung Research America

Nezou, Patrice Canon Research Centre France

Ng, Boon Loong Samsung Research America

noh, yujin Senscomm

Ozbakis, Basak VESTEL

Palayur, Saju Maxlinear Inc

PANG, KUN Honor Device Co.,Ltd.

Pare, Thomas MediaTek Inc.

Park, Eunsung LG ELECTRONICS

Patil, Abhishek Qualcomm Incorporated

Patwardhan, Gaurav Hewlett Packard Enterprise

Pushkarna, Rajat Panasonic Asia Pacific Pte Ltd.

Ratnam, Vishnu Samsung Research America

Rosdahl, Jon Qualcomm Technologies, Inc.

Ryu, Kiseon Ofinno

Salman, Hanadi Istanbul Medipol University; VESTEL

Schelstraete, Sigurd MaxLinear

Sedin, Jonas Ericsson AB

Sethi, Ankit NXP Semiconductors

Sevin, Julien Canon Research Centre France

Shafin, Rubayet Samsung Research America

Srivatsa, Veena Synaptics

Stanley, Dorothy Hewlett Packard Enterprise

Taori, Rakesh Cypress Semiconductor Corporation

Torab Jahromi, Payam Facebook

Tsujimaru, Yuki Canon Inc.

Varshney, Prabodh Nokia

Verenzuela, Daniel Sony Corporation

Wang, Huizhao Quantenna Communications, Inc.

Wang, Lei Futurewei Technologies

Wei, Dong NXP Semiconductors

Wu, Kanke Qualcomm Incorporated

Wullert, John Perspecta Labs

Xin, Yan Huawei Technologies Co., Ltd

Yang, Steve TS MediaTek Inc.

Yano, Kazuto Advanced Telecommunications Research Institute International (ATR)

Yee, James MediaTek Inc.

Yi, Yongjiang Spreadtrum Communication USA Inc.

Zaman, Malia IEEE Standards Association (IEEE-SA)

Zhang, Yan NXP Semiconductors

Zhou, Pei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Zia, Muhammad Furqan VESTEL; Koc University

1. Agenda.
   1. The Motion document is rev46.
   2. 1218 is updated to r1.
   3. Agenda approved with unanimous consent.
2. Motions: [1982r46](https://mentor.ieee.org/802.11/dcn/20/11-20-1982-46-00be-tgbe-motions-list-for-teleconferences-part-2.pptx)
   1. **Motion 254 (PHY-1)**

Move to approve resolutions to the CIDs:

* 7242, 5490, 7398, 8133 in [1266r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1266-03-00be-cc36-cr-for-coding.docx) *[4 CIDs]*
* 7253, 7254 in [1267r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1267-01-00be-cc36-cr-for-packet-extension.docx) *[2 CIDs]*

and incorporate the text changes into the latest TGbe draft.

Move: Edward Au Second: Bin Tian

Discussion: No discussion.

Result: Approved with unanimous consent.

* 1. **Motion 255 (MAC-1)**

Move to approve resolutions to the CIDs:

* 6029, 6030, 6679, 6680, 6682, 6683, 6710, 7512, 6308, 6736, 8200, 8201, 8202, 8203, 8242, 8243, 8244, 6377, 6681 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) *[19 CIDs]*
* 8156, 6606, 5799, 8155, 5800, 4164 in [1249r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1249-06-00be-cc36-cr-for-eht-om-part-ii.docx) *[6 CIDs]*
* 6729 in [1421r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1421-01-00be-cc36-cr-for-cid-6729.docx) *[1 CID]*
* 4006, 4290 in [1401r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1401-00-00be-resolution-for-cids-related-to-status-code-field.docx) *[2 CIDs]*
* 4094, 4130, 4131, 4302, 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, 4840 in [1425r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1425-03-00be-cc-36-cr-for-4-5-3.docx) *[38 CIDs]*

and incorporate the text changes into the latest TGbe draft.

Move: Ming Gan Second: Po-Kai Huang

Discussion: No discussion.

Result: Approved with unanimous consent.

* 1. **Motion 256 (MAC-2)**

Move to approve resolutions to the CIDs:

* 6715, 6716, 7890 in [1275r5](https://mentor.ieee.org/802.11/dcn/21/11-21-1275-05-00be-cc36-cr-for-d1-0-proxy-arp-cids.docx) *[3 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 in [1339r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1339-03-00be-cc36-cr-for-35-3-15-7.docx) *[37 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, 5647 in [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) *[31 CIDs]*

and incorporate the text changes into the latest TGbe draft.

Move: Mike Montemurro Second: Po-Kai Huang

Discussion: No discussion.

Result: Approved with unanimous consent.

* 1. **Motion 257 (Joint-1)**

Move to approve resolutions to the CIDs:

* 8074, 7391, 5204, 7688, 7689, 4506, 7029, 4880, 4882, 7908, 7030, 4582, 7354, 7032, 7031, 7027, 7033, 5797, 7034, 5798, 7402, 7353, 4326, 4325, 7897, 5796, 7026, 7907, 7904, 4881 in [1488r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1488-01-00be-cr-trigger-frame-eht-user-info-field-9-3-1-22-1-2-2.docx) *[30 CIDs]*

and incorporate the text changes into the latest TGbe draft.

Move: Yanjun Sun Second: Mike Montemurro

Discussion: No discussion.

Result: Approved with unanimous consent.

1. Technical Submissions**: CRs**
   1. [**1592r1**](https://mentor.ieee.org/802.11/dcn/21/11-21-1592-01-00be-cr-trigger-frame-padding.docx) **CR Trigger frame padding Yanjun Sun [1C SP-10’]**

Yanjun goes through the document. No discussion.

SP: Do you agree to resolve the following CIDs listed in [1592r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1592-01-00be-cr-trigger-frame-padding.docx) and incorporate the text changes into the latest TGbe draft?

* 5544

Discussion: No discussion.

Result: Supported with no objection from the group.

* 1. [**1546r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1546-00-00be-cr-trigger-frame-special-user-info-field.docx) **CR Trigger Frame Special User Info field Yanjun Sun [38C 45’]**

Yanjun goes through the document. Some minor discussion and updates to the document.

SP: Do you agree to resolve the following CIDs listed in [1546r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1546-01-00be-cr-trigger-frame-special-user-info-field.docx) and incorporate the text changes into the latest TGbe draft?

* 6823,6698,7036,7693,4884,7037,7799,8161,4507,7694,7482,5024,7898,6697,7691,
* 7692,4883,5511,7035,8075,7902,4328,7695,8076,8077,4329,5512,5119,4885,4508,
* 7038,7696,5120,7739,5545,4887,4606,4607

Discussion: No discussion.

Result: Supported with no objection from the group.

1. Technical Submissions: PDTs
   1. [**1613r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1613-00-00be-pdt-reference-for-sr.docx) **PDT Reference for SR Zinan Lin [PDT 15’]**

Zinan goes through the document.

SP: Do you agree to incorporate the proposed text changes of [1613r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1613-01-00be-pdt-reference-for-sr.docx) into the latest TGbe draft?

Discussion: No discussion.

Result: Supported with no objection from the group.

1. Technical Submissions:
   1. [**1218r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1218-00-00be-random-access-with-capture.pptx) **Random access with capture Jonas Sedin [25’]**

Summary: The authors propose power control to allow different received powers when using UORA. The idea is that if collisions occur, the stronger power may be correctly received.

Discussion:

C: I have a question regarding the target received power, is your suggestion to go against the recommendation from the AP?

A: Yes.

C: But this received power has been recommended by the AP to be able to decode the other RUs.

C: Here there are different STAs in the uplink, and the oscillators may be different. If we also add this variable power levels we introduce even more imperfectors.

A: In this simulation we do not take this into account, but probably we should look at it. I understand it as quite large power differences should be fine for decoding, but ofc requires more study.

C: In the case where you consider power ramping. Is the intention to benefit users that have previously experienced problems?

A: Yes.

C: If a user transmits, and the transmission fails. Is it possible on the user side to know why he failed? Otherwise, he may just ramp his power and hurting others.

A: I think it is difficult to know why you fail, so that is plausible. But I think increasing power is always beneficial.

C: In the random scheme which distribution of the values have you chosen?

A: Uniformely random.

C: In the random scheme, those with the lower power will be sacrificed.

A: Yes, if you want to cheat you can cheat.

C: How can the AP know it’s a collision so it can update its OCW value?

A: I’m not sure if I misunderstand you, but wouldn’t you have the same problem already in the .11ax.

C: In .11ax we know if there is a collision.

C: There is a power measurement and a powersetting. By reducing the power other failures may occur.

A: Good point.

C: In a real system RSS we usually have a +- 3dB accuracy and due to other accuracies, we have a -6 dB to +6dB accuracy. So I doubt we would see any benefit in a real system.

C: I think UORA is mostly used for STAs very far away. In those cases it is always good to bump up your power to the maximum.

C: The power constraint may cause a big impact on the throughput. So, I would suggest to also look at the throughput in the simulations.

C: We may need some link level simulations to verify that this works. I believe, for example that the 3dB is not sufficient for decoding.

C: Clarification of the figures. Do you know why there is no effect already in 3 users per RU? Do you have any insight? Even with 2 users there should be lots of collisions.

A: I expect that you don’t have any problems with collisions anyhow. But probably we should look more into it. It may be if we zoom into the figures we can see more effects of the collisions. The y-axis is in seconds.

C: Do you also drop the edge users by up to 9 dB?

A: Yes.

C: Hidden node problem may be something to look at when changing TX power.

1. AoB:
   1. The Chair notifies that the Joint next week will be a MAC call.
2. Adjourn at 11:57.

# 12th Conf. Call: Oct 14 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 13th Conf. Call: Oct 18 (19:00–21:00 ET)

Split PHY and MAC:

* PHY: <https://mentor.ieee.org/802.11/dcn/21/11-21-1594-04-00be-minutes-of-802-11be-phy-ad-hoc-meetings-september-to-november-2021.docx>
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 14th Conf. Call: Oct 20 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 15th Conf. Call: Oct 21 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 16th Conf. Call: Oct 25 (19:00–21:00 ET)

Split PHY and MAC:

* PHY: <https://mentor.ieee.org/802.11/dcn/21/11-21-1594-04-00be-minutes-of-802-11be-phy-ad-hoc-meetings-september-to-november-2021.docx>
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 17th Conf. Call: Oct 27 (10:00–12:00 ET)

1. The Chair, Alfred Asterjadhi (Qualcomm) calls the meeting to order at 10:00 ET.
2. IEEE 802 and 802.11 IPR policy and procedure
   1. Patent Policy: Ways to inform IEEE:

* Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
* Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
* Speak up now and respond to this Call for Potentially Essential Patents
* If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair.
* **Nobody speaks/writes up.**

1. The Chair goes through the **Copyright Policy**: Participants are advised that
   1. IEEE SA’s copyright policy is described in [Clause 7](https://standards.ieee.org/about/policies/bylaws/sect6-7.html#7) of the IEEE SA Standards Board Bylaws and [Clause 6.1](https://standards.ieee.org/about/policies/opman/sect6.html) of the IEEE SA Standards Board Operations Manual;
   2. Any material submitted during standards development, whether verbal, recorded, or in written form, is a Contribution and shall comply with the IEEE SA Copyright Policy
2. **Patent, Participation, Copyright and policy related subclause:** The Chair goes through the *Patent And Procedures* section in [1478r23](https://mentor.ieee.org/802.11/dcn/21/11-21-1478-23-00be-sept-nov-tgbe-teleconference-agenda.docx).
3. Attendance reminder.
   1. Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   2. 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.
   3. If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman ([dennis.sundman@ericsson.com](mailto:dennis.sundman@ericsson.com)) and Alfred Asterjadhi ([aasterja@qti.qualcomm.com](mailto:aasterja@qti.qualcomm.com))
   4. Please ensure that the following information is listed correctly when joining the call:
      1. "[voter status] First Name Last Name (Affiliation)"

Ajami, Abdel Karim Qualcomm Incorporated

Al Falujah, Iyad ON Semiconductor

An, Song-Haur INDEPENDENT

Ansley, Carol Cox Communications Inc.

Au, Kwok Shum Huawei Technologies Co., Ltd

Baek, SunHee LG ELECTRONICS

Bredewoud, Albert Broadcom Corporation

Carney, William Sony Group Corporation

Chemrov, Kirill IITP RAS

Chitrakar, Rojan Panasonic Asia Pacific Pte Ltd.

Chu, Liwen NXP Semiconductors

CHUN, JINYOUNG LG ELECTRONICS

Chung, Chulho SAMSUNG

Coffey, John Realtek Semiconductor Corp.

Das, Subir Peraton Labs

Dong, Xiandong Xiaomi Inc.

Fischer, Matthew Broadcom Corporation

Ghosh, Chittabrata Facebook, Inc.

Gong, Bo Huawei Technologies Co., Ltd

Gu, Xiangxin Unisoc

Gupta, Binita Facebook

Haasz, Jodi IEEE Standards Association (IEEE-SA)

Haider, Muhammad Kumail Facebook

Han, Zhiqiang ZTE Corporation

Handte, Thomas Sony Corporation

Hervieu, Lili Cable Television Laboratories Inc. (CableLabs)

Ho, Duncan Qualcomm Incorporated

Hsieh, Hung-Tao MediaTek Inc.

Huang, Lei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Ibrahim, Ahmed Samsung Research America

Jeon, Eunsung SAMSUNG ELECTRONICS

Jung, Insik LG ELECTRONICS

Kain, Carl USDoT; Noblis, Inc.

Kamel, Mahmoud InterDigital, Inc.

Kedem, Oren MaxLinear

Kim, Jeongki Ofinno

Kim, Myeong-Jin SAMSUNG

Kim, Sang Gook LG ELECTRONICS

Kim, Sanghyun WILUS Inc

Kim, Youhan Qualcomm Incorporated

Ko, Geonjung WILUS Inc.

Koundourakis, Michail Samsung Cambridge Solution Centre

Levesque, Chris Qorvo

Levitsky, Ilya IITP RAS

Li, Yapu Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Lim, Dong Guk LG ELECTRONICS

liu, baosheng longsailing

LIU, CHENCHEN Huawei Technologies Co., Ltd

Liu, Der-Zheng Realtek Semiconductor Corp.

Liu, Jianhan MediaTek Inc.

Lorgeoux, Mikael Canon Research Centre France

Lou, Hanqing InterDigital, Inc.

Lu, kaiying MediaTek Inc.

Lu, Liuming Guangdong OPPO Mobile Telecommunications Corp.,Ltd

Lumbatis, Kurt CommScope, Inc.

Luo, Chaoming Beijing OPPO telecommunications corp., ltd.

Ma, Li MediaTek Inc.

McCann, Stephen Huawei Technologies Co., Ltd

Montemurro, Michael Huawei Technologies Co., Ltd

Montreuil, Leo Broadcom Corporation

NANDAGOPALAN, SAI SHANKAR Synaptics

Nayak, Peshal Samsung Research America

Ng, Boon Loong Samsung Research America

noh, yujin Senscomm

Ozbakis, Basak VESTEL

Park, Eunsung LG ELECTRONICS

Patil, Abhishek Qualcomm Incorporated

Patwardhan, Gaurav Hewlett Packard Enterprise

Petrick, Albert InterDigital, Inc.

Ratnam, Vishnu Samsung Research America

Ryu, Kiseon Ofinno

Salman, Hanadi Istanbul Medipol University; VESTEL

Schelstraete, Sigurd MaxLinear

Shafin, Rubayet Samsung Research America

Shilo, Shimi Huawei Technologies Co., Ltd

Srivatsa, Veena Synaptics

SUH, JUNG HOON Huawei Technologies Co., Ltd

Sun, Bo ZTE Corporation

Tanaka, Yusuke Sony Group Corporation

Taori, Rakesh Infineon Technologies

Tian, Bin Qualcomm Incorporated

Tsodik, Genadiy Huawei Technologies Co., Ltd

Tsujimaru, Yuki Canon Inc.

Uln, Kiran Cypress Semiconductor Corporation

Varshney, Prabodh Nokia

Verenzuela, Daniel Sony Corporation

Vermani, Sameer Qualcomm Incorporated

Wang, Chao Chun MediaTek Inc.

Wang, Hao Tencent

Wang, Huizhao Quantenna Communications, Inc.

Wang, Lei Futurewei Technologies

Wei, Dong NXP Semiconductors

Wullert, John Perspecta Labs

YANG, RUI InterDigital, Inc.

Yang, Steve TS MediaTek Inc.

Yano, Kazuto Advanced Telecommunications Research Institute International (ATR)

Yee, James MediaTek Inc.

Yi, Yongjiang Spreadtrum Communication USA Inc.

Zhang, Yan NXP Semiconductors

Zhou, Pei Guangdong OPPO Mobile Telecommunications Corp.,Ltd

1. Agenda.
   1. Agenda approved with unanimous consent.
2. Nov-Jan Telco Plan: The Chair shows the conference call list in [1478r23](https://mentor.ieee.org/802.11/dcn/21/11-21-1478-23-00be-sept-nov-tgbe-teleconference-agenda.docx).
   1. Some discussion regarding daylight saving / standard time.
3. Technical Submissions**: CRs**
   1. [**1615r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1615-00-00be-cr-trigger-frame-subtypes.docx) **CR Trigger frame subtypes Yanjun Sun [29C 35’]**

Yanjun goes through his document. Some comments.

SP: Do you agree to resolve the following CIDs listed in [1615r2](https://mentor.ieee.org/802.11/dcn/21/11-21-1615-02-00be-cr-trigger-frame-subtypes.docx) and incorporate the text changes into the latest TGbe draft?

* 5546, 4888, 5513, 5514, ~~7409~~, ~~7697~~, 7663, 4182, 7912, 5226, 6054, 6743, 7913, 4198, 5557, 7729, 7914, 4199, 4200, 6079, 7915, 7067, 6055, 7916, 4839, 8251, 7917, 4202, 5558

Discussion: No discussion.

Result: Supported with no objection from the group.

1. Technical Submissions: **MAC/PHY**
   1. [**1251r1**](https://mentor.ieee.org/802.11/dcn/21/11-21-1251-01-00be-cc36-cr-for-9-2-4-frame-fields.docx) **cc36-cr-for-9.2.4 Frame fields Jinyoung Chun [2C SP-10’]**

Jinyoung goes through her document.

SP: Do you agree to resolve the following CIDs listed in [1251r1](https://mentor.ieee.org/802.11/dcn/21/11-21-1251-01-00be-cc36-cr-for-9-2-4-frame-fields.docx) and incorporate the text changes into the latest TGbe draft?

* 4292, 7828

Discussion: No discussion.

Result: Supported with no objection from the group.

1. Technical Submissions:
   1. [**1711r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1711-00-00be-bw-signaling-for-control-frames.pptx) **BW signaling for control frames Sigurd Schelstraete [30’]**

Summary: More of a R2 discussion. The authors have discovered that we need some future-proof mechanism for signaling BW information in non-HT duplicate format. One solution is to use the Control Wrapper Frame. Only needed for R2 signaling.

Discussion:

C: The Control Wrapper Frame can wrap any other control frame?

A: Yes.

C: In .11ax we add mandatory rules to disallow the control wrapper frame.

A: Please provide some references and I’ll look it up.

C: The contribution in 11-21/247r4 provides an alternative solution.

A: Yes, it is referenced.

1. AoB: No other business.
2. Adjourned at 11:47 ET.

# 18th Conf. Call: Oct 28 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 19th Conf. Call: Nov 01 (19:00–21:00 ET)

Split PHY and MAC:

* PHY: <https://mentor.ieee.org/802.11/dcn/21/11-21-1594-04-00be-minutes-of-802-11be-phy-ad-hoc-meetings-september-to-november-2021.docx>
* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 20th Conf. Call: Nov 03 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>

# 21st Conf. Call: Nov 04 (10:00–12:00 ET)

Only MAC.

* MAC: <https://mentor.ieee.org/802.11/dcn/21/11-21-1574-10-00be-minutes-for-tgbe-mac-ad-hoc-teleconferences-sept-to-nov-2021.docx>