IEEE P802.11
Wireless LANs

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| TGbe January 2021 to March 2021 Teleconference Minutes |
| Date: 2021-01-20 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
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Abstract

This document contains the minutes for January 2021 to March 2021 TGbe teleconferences.

Revisions:

* Rev0: First revision of the document. Added minutes of meeting call on Wednesday 20th of January.
* Rev1: Added participation list to the meeting 20th of January. Also fixed some typos, thanks to Dorothy Stanley for providing feedback.

# Wednesday 20 January 9:00 – 11:00 ET

1. The Chair, Alfred Asterjadhi (Qualcomm), calls the meeting to order at 9:01 ET. The Chair notifies that the agenda is in [1917r10](https://mentor.ieee.org/802.11/dcn/20/11-20-1917-10-00be-jan-mar-tgbe-teleconference-agendas.docx).
* IEEE 802 and 802.11 IPR policy and procedure
	+ **Patent Policy: Ways to inform IEEE:**
		- Cause an LOA to be submitted to the IEEE-SA (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. **Nobody speaks/writes up**.

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

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1. Attendance reminder.
* Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
* Please record your attendance during the conference call by using the IMAT system:
	+ 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
* If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Dennis Sundman (dennis.sundman@ericsson.com) and Alfred Asterjadhi (aasterja@qti.qualcomm.com)
* Please ensure that the following information is listed correctly when joining the call:
	+ "[voter status] First Name Last Name (Affiliation)"
* Attendence reported in IMAT:
* Aboulmagd, Osama Huawei Technologies Co.,  Ltd
* Adhikari, Shubhodeep Broadcom Corporation
* Akhmetov, Dmitry Intel Corporation
* An, Song-Haur INDEPENDENT
* Ansley, Carol IEEE member / Self Employed
* Anwyl, Gary MediaTek Inc.
* Asterjadhi, Alfred Qualcomm Incorporated
* Au, Kwok Shum Huawei Technologies Co.,  Ltd
* Bankov, Dmitry IITP RAS
* baron, stephane Canon Research Centre France
* Bredewoud, Albert Broadcom Corporation
* Cao, Rui NXP Semiconductors
* Cariou, Laurent Intel Corporation
* Carney, William Sony Corporation
* Cavalcanti, Dave Intel Corporation
* Cheng, Paul MediaTek Inc.
* CHERIAN, GEORGE Qualcomm Incorporated
* Chitrakar, Rojan Panasonic Asia Pacific Pte Ltd.
* Choi, Jinsoo LG ELECTRONICS
* Chu, Liwen NXP Semiconductors
* CHUN, JINYOUNG LG ELECTRONICS
* Chung, Chulho SAMSUNG
* Coffey, John Realtek Semiconductor Corp.
* Das, Subir Perspecta Labs Inc.
* Derham, Thomas Broadcom Corporation
* de Vegt, Rolf Qualcomm Incorporated
* Ding, Yanyi Panasonic Corporation
* Dong, Xiandong Xiaomi Inc.
* Duan, Ruchen SAMSUNG
* Erceg, Vinko Broadcom Corporation
* Fang, Yonggang Self
* Fischer, Matthew Broadcom Corporation
* Gao, Zhigang Cisco Systems, Inc.
* Ghaderipoor, Alireza MediaTek Inc.
* Ghosh, Chittabrata Intel Corporation
* Gong, Bo Huawei Technologies Co. Ltd
* Gu, Xiangxin Unisoc
* Han, Jonghun SAMSUNG
* Han, Zhiqiang ZTE Corporation
* Handte, Thomas Sony Corporation
* Hart, Brian Cisco Systems, Inc.
* Hervieu, Lili Cable Television Laboratories Inc. (CableLabs)
* Ho, Duncan Qualcomm Incorporated
* Hsieh, Hung-Tao MediaTek Inc.
* Hsu, Chien-Fang MediaTek Inc.
* Hu, Chunyu Facebook
* Huang, Guogang  HUAWEI
* Huang, Lei Guangdong OPPO Mobile Telecommunications Corp.,Ltd
* Huang, Po-Kai Intel Corporation
* Jamalabdollahi, Mohsen Cisco Systems, Inc.
* Jang, Insun LG ELECTRONICS
* Kain, Carl USDoT
* kamath, Manoj Broadcom Corporation
* Kamel, Mahmoud InterDigital, Inc.
* Kandala, Srinivas SAMSUNG
* Kedem, Oren Huawei Technologies Co. Ltd
* Khorov, Evgeny IITP RAS
* Kim, Myeong-Jin SAMSUNG
* kim, namyeong LG ELECTRONICS
* Kim, Sang Gook LG ELECTRONICS
* Kim, Sanghyun WILUS Inc
* Kim, Youn-Kwan Sync Techno
* Kishida, Akira Nippon Telegraph and Telephone Corporation (NTT)
* Klein, Arik Huawei Technologies Co. Ltd
* Kneckt, Jarkko Apple, Inc.
* Kwon, Young Hoon NXP Semiconductors
* Lalam, Massinissa SAGEMCOM BROADBAND SAS
* Lansford, James Qualcomm Incorporated
* Lee, Wookbong SAMSUNG
* Levitsky, Ilya IITP RAS
* Li, Yunbo Huawei Technologies Co., Ltd
* Lim, Dong Guk LG ELECTRONICS
* Liu, Yong Apple, Inc.
* Lopez, Miguel Ericsson AB
* 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.
* Lv, Lily Huawei Technologies Co. Ltd
* Ma, Li MediaTek Inc.
* Ma, Mengyao HUAWEI
* Martinez Vazquez, Marcos MaxLinear Corp
* Max, Sebastian Ericsson AB
* McCann, Stephen Huawei Technologies Co.,  Ltd
* Memisoglu, Ebubekir Istanbul Medipol University; Vestel
* Monajemi, Pooya Cisco Systems, Inc.
* Montemurro, Michael Huawei Technologies Co. Ltd
* Montreuil, Leo Broadcom Corporation
* Ng, Boon Loong Samsung Research America
* noh, yujin Newracom Inc.
* Ozbakis, Basak VESTEL
* Park, Eunsung LG ELECTRONICS
* Park, Minyoung Intel Corporation
* Patil, Abhishek Qualcomm Incorporated
* Patwardhan, Gaurav Hewlett Packard Enterprise
* Petrick, Albert InterDigital, Inc.
* Raissinia, Alireza Qualcomm Incorporated
* Reshef, Ehud Intel Corporation
* Rosdahl, Jon Qualcomm Technologies, Inc.
* Salman, Hanadi Istanbul Medipol University; VESTEL
* Sambasivan, Sam AT&T
* Schelstraete, Sigurd ON Semiconductor
* Sedin, Jonas Ericsson AB
* Sevin, Julien Canon Research Centre France
* Shellhammer, Stephen Qualcomm Incorporated
* Shilo, Shimi HUAWEI
* SUH, JUNG HOON Huawei Technologies Co. Ltd
* Sun, Bo ZTE Corporation
* Sundman, Dennis Ericsson AB
* Tanaka, Yusuke Sony Corporation
* Tian, Bin Qualcomm Incorporated
* Torab Jahromi, Payam Facebook
* Tsodik, Genadiy Huawei Technologies Co. Ltd
* Van Zelst, Allert Qualcomm Incorporated
* Varshney, Prabodh Nokia
* Verenzuela, Daniel Sony Corporation
* VIGER, Pascal Canon Research Centre France
* Wang, Chao Chun MediaTek Inc.
* wang, haifei Huawei Technologies Co., Ltd
* Wang, Hao Tencent
* Wang, Lei Futurewei Technologies
* Wang, Qi Apple, Inc.
* Wentink, Menzo Qualcomm
* Wilhelmsson, Leif Ericsson AB
* Wu, Tianyu Apple, Inc.
* Wullert, John Perspecta Labs
* Xiao, Bo ZTE Corporation
* Xin, Yan Huawei Technologies Co., Ltd
* Yang, Bo Huawei Technologies Co. Ltd
* Yang, Jay Nokia
* YANG, RUI InterDigital, Inc.
* Yang, Steve TS MediaTek Inc.
* Yano, Kazuto Advanced Telecommunications Research Institute International (ATR)
* Yee, James MediaTek Inc.
* yi, yongjiang Futurewei Technologies
* Young, Christopher Broadcom Corporation
* Zeng, Yan Huawei Technologies Co.,  Ltd
* Zhang, Yan NXP Semiconductors
* Zhou, Pei Guangdong OPPO Mobile Telecommunications Corp.,Ltd
* Zuo, Xin Tencent
* Attendence reported through e-mail:
	+ Palayur, Saju MaxLinear
1. Approval of agenda.
	* The contribution 1247 to be added to the list of technical submissions.
	* Some updates to the editor status report.
	* Agenda approved with unanimous consent.
2. Announcements:
	* TGbe D0.3. is now available in the members area:
		+ <https://www.ieee802.org/11/private/Draft_Standards/11be/index.html>
	* CC34 - IEEE 802.11 P802.11be Comment Collection is now open (ends Feb. 03)
		+ <https://mentor.ieee.org/802.11/poll-vote?p=46800008&t=46800008>
	* Reminder:
		+ There are no motions to add to TGbe SFD for R1 after D0.3 is released
			1. I.e., SPs may be ran, and expected to be included in the compendium of SPs but no motion will be ran to add to TGbe SFD
3. TGbe Editor Status Report/Updates:
	* [997r85](https://mentor.ieee.org/802.11/dcn/20/11-20-0997-85-00be-tgbe-spec-text-volunteers-and-status.docx) Volunteers and Status; 20/[1935r11](https://mentor.ieee.org/802.11/dcn/20/11-20-1935-11-00be-compendium-of-straw-polls-and-potential-changes-to-the-specification-framework-document-part-2.docx) Compendium of SPs–Part 2; [1262r23](https://mentor.ieee.org/802.11/dcn/19/11-19-1262-23-00be-specification-framework-for-tgbe.docx) TGbe SFD.
	* Edward goes through [19/1935r1](https://mentor.ieee.org/802.11/dcn/19/11-19-1935-01-00be-tgbe-editor-s-report.ppt)
4. Technical Submissions: **Proposed Draft Text (PDTs) for fixings TBDs**
	* [0011r2](https://mentor.ieee.org/802.11/dcn/21/11-21-0011-02-00be-proposed-draft-text-pdt-joint-spatial-stream-and-mimo-protocol-enhancement-part-2.docx) Spatial Stream and MIMO Protocol Enhancement Part 2, Wook Bong Lee
		+ Some discussion regarding NDP Announcement frame: whether it includes bandwidth indication, puncturing information.
5. Technical Submissions:
	* [**0043r1**](https://mentor.ieee.org/802.11/dcn/21/11-21-0043-01-00be-eht-ltf-related-signaling-in-enhanced-trigger-frame.pptx) **EHT-LTF related signaling in enhanced trigger frame Lei Huang**

Summary: The authors argue that the number of HE-LTF and EHT-LTF symbols may not always be the same for A-PPDU. To that end they propose to signal the number of LTF information in the EHT TB PPDU.

Discussion:

C: A-PPDU is an R2 feature. Therefore, I propose we go with the current design for R1.

A: My concern is that if we wait until R2 to discuss this, we may need to have different hardware for R1 and R2.

C: If they have different number of symbols, the symbol boundry may not be aligned.

A: I think the LTF needs to be same size of OFDM symbol.

C: Why do you want them to be different number of LTF symbols?

A: I believe the flexibility is good.

C: I don’t see a strong benefit to have different number of LTFs, but I see complexity concerns with introducing this.

A: I see your point. How about for the MU-PPDU?

C: I need to doublecheck this, but at least for TB PPDU this is just too complex.

C: I am not sure it is a good idea to mix data with LTF which may be the case if there are different number of LTFs. I would need to think more about this.

A: Ok.

* + [**0057r2**](https://mentor.ieee.org/802.11/dcn/21/11-21-0057-02-00be-discussion-on-special-user-info-field-of-trigger-frame.pptx) **Discussion on special user info field of trigger frame Lei Huang**

Summary: The authors propose to move the 2-bit PPDU Bandwidth Extension subfield to the common info field in order to minimize the overhead of the enhanced MU-RTS trigger frame.

*Straw poll deferred.*

* + [**0095r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-0095-00-00be-phy-related-agreements-for-sst.pptx) **PHY-related agreements for SST Sigurd Schelstraete**

Summary: The authors have identified that for SST to extend to EHT, the full definition needs to be revised.

**SP1**

Do you agree that:

* for an 80 MHz operating STA that is assigned (by the AP) a non-primary 80 MHz channel in a 160 MHz or 320 MHz EHT MU PPDU (if such operation is defined), SST shall define a “guaranteed non-punctured 20 MHz channel” in that non-primary 80 MHz channel.

Discussion:

C: Is this channel supposed to be the same for all 80 MHz STAs?

A: It wouldn’t have to be strictly the same.

C: This cannot be mandatory since it’s not part of R1.

A: Yes and this is just an agreement so we can address it later.

C: I want to commit to SST 80 MHz for R1. So I want that to be super clear.

C: Maybe we can update the text to something that “do you agree that when we define…”?

A: We can add a note SST in non-primary 80 MHz is an R2 feature.

C: How come option 3 was chosen?

A: The other options has some drawbacks.

C: Do we really need the dynamic puncturing mode?

*Some updates on the text*

*Further lengthy discussions on the SP1 text.*

**New text:**

Do you agree that:

* for an 80 MHz operating STA supporting SST that is assigned (by the AP) a non-primary 80 MHz channel in a 160 MHz or 320 MHz EHT MU PPDU using SST, the STA shall have already received at least one “guaranteed non-punctured 20 MHz channel” from the AP within the non-primary 80 MHz.
* Note: SST in non-primary 80 MHz is an agreed R2 feature

SP1 not run.

1. Adjourn at 11:00.