IEEE P802.11
Wireless LANs

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| Minutes for Task Group (TG) 802.11 beExtremely High ThroughputTelephone Conferences in April 2020 |
| Date: 2020-04-03 |
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|  |  |  |  |  |

Abstract

This document contains the meeting minutes from TGbe telcos in April, 2020.

* Rev0: Minutes for conference call Thursday April 2, 2020.

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# Thursday 2 April 2020, 10:00 – 13:00 ET

**Introduction**

1. The Chair, Alfred Asterjadhi (Qualcomm) calls the meeting to order at 10:02. The agenda document was prior to meeting [11-20/0425r15](https://mentor.ieee.org/802.11/dcn/20/11-20-0425-15-00be-2020-mar-may-tgbe-teleconference-agendas.docx) but will be [11-20/0425r16.](https://mentor.ieee.org/802.11/dcn/20/11-20-0425-16-00be-2020-mar-may-tgbe-teleconference-agendas.docx)
2. The Chair goes through the IEEE 802 and 802.11 IPR policy and procedure. The Chair asks if anybody willing to speak up. Nobody speaks up.
3. Attendance reminder. 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.
	2. 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)

There is some discussion regarding how imat works.

**List of attendees:**

* Abdelaal, Rana Broadcom Corporation
* Aboulmagd, Osama Huawei Technologies Co.,  Ltd
* Adhikari, Shubhodeep Broadcom Corporation
* Akhmetov, Dmitry Intel Corporation
* An, Song-Haur INDEPENDENT
* Asterjadhi, Alfred Qualcomm Incorporated
* Au, Kwok Shum Huawei Technologies Co., Ltd
* baron, stephane Canon Research Centre France
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* Bredewoud, Albert Broadcom Corporation
* Cao, Rui NXP Semiconductors
* Cariou, Laurent Intel Corporation
* Carney, William Sony Corporation
* Chen, Xiaogang Intel
* 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
* Ciochina, Dana Sony Corporation
* Das, Dibakar Intel Corporation
* Das, Subir Applied Communication Sciences
* Derham, Thomas Broadcom Corporation
* Doostnejad, Roya Intel Corporation
* Duan, Ruchen SAMSUNG
* ElSherif, Ahmed Qualcomm Incorporated
* Erceg, Vinko Broadcom Corporation
* Fang, Yonggang ZTE TX Inc
* Fischer, Matthew Broadcom Corporation
* Gan, Ming Huawei Technologies Co., Ltd
* Garcia Rodriguez, Adrian Jose Nokia
* Guo, Qiang Futurewei Technologies
* Guo, Yuchen Huawei Technologies Co., Ltd
* Gwak, Yongsu Korea National University of Transportation
* Han, Jonghun SAMSUNG
* Handte, Thomas Sony Corporation
* Hervieu, Lili Cable Television Laboratories Inc. (CableLabs)
* Ho, Duncan Qualcomm Incorporated
* Hong, Hanseul Yonsei University
* Hu, Chunyu Facebook
* Hu, Mengshi HUAWEI
* Huang, Guogang  Huawei
* Huang, Po-Kai Intel Corporation
* Jang, Insun LG ELECTRONICS
* Ji, Chenhe Huawei Technologies Co. Ltd
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* Kain, Carl USDoT
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* Kedem, Oren 101 Consulting Corporation
* Kim, Jeongki LG ELECTRONICS
* Kim, Myeong-Jin SAMSUNG
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* Kim, Sang Gook LG ELECTRONICS
* Kim, Yongho Korea National University of Transportation
* Klein, Arik Intel Corporation
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* Ko, Geonjung WILUS Inc.
* Kwon, Young Hoon NXP Semiconductors
* Lalam, Massinissa SAGEMCOM BROADBAND SAS
* Lan, Zhou Broadcom Corporation
* Lee, Wookbong SAMSUNG
* Levy, Joseph InterDigital, Inc.
* Li, Guoqing Apple, Inc.
* Li, Yiqing Huawei Technologies Co. Ltd
* Li, Yunbo Huawei Technologies Co., Ltd
* Liang, dandan Huawei Technologies Co., Ltd
* Lim, Dong Guk LG ELECTRONICS
* Lin, Wei Huawei Technologies Co. Ltd
* Liu, Jianhan MediaTek Inc.
* Liu, Yong Apple, Inc.
* Lopez, Miguel Ericsson AB
* Lou, Hanqing InterDigital, Inc.
* Lv, kaiying MediaTek Inc.
* Lv, Lily Huawei Technologies Co. Ltd
* Madpuwar, Girish Broadcom Corporation
* Max, Sebastian Ericsson AB
* Monajemi, Pooya Cisco Systems, Inc.
* NANDAGOPALAN, SAI SHANKAR Cypress Semiconductor Corporation
* Naribole, Sharan SAMSUNG
* Nezou, Patrice Canon Research Centre France
* noh, yujin Newracom Inc.
* Omar, Hassan Huawei Technologies Co.,  Ltd
* Pare, Thomas MediaTek Inc.
* Park, Eunsung LG ELECTRONICS
* Park, Minyoung Intel Corporation
* Park, Sung-jin LG ELECTRONICS
* Patil, Abhishek Qualcomm Incorporated
* Patwardhan, Gaurav Hewlett Packard Enterprise
* PESIN, ANTHONY InterDigital, Inc.
* Petrick, Albert InterDigital, Inc.
* porat, ron Broadcom Corporation
* Puducheri, Srinath Broadcom Corporation
* Pulikkoonattu, Rethnakaran Broadcom Corporation
* Redlich, Oded Huawei
* RISON, Mark Samsung Cambridge Solution Centre
* Rosdahl, Jon Qualcomm Technologies, Inc.
* Schelstraete, Sigurd Quantenna Communications, Inc.
* Seok, Yongho MediaTek Inc.
* Sharma, Prashant NXP Semiconductors
* Shellhammer, Stephen Qualcomm Incorporated
* Shilo, Shimi HUAWEI
* Song, Taewon LG ELECTRONICS
* SUH, JUNG HOON Huawei Technologies Co. Ltd
* Sun, Bo ZTE Corporation
* Sun, Li-Hsiang InterDigital, Inc.
* Sun, Yanjun Qualcomm Incorporated
* Sundman, Dennis Ericsson AB
* Tian, Bin Qualcomm Incorporated
* Tsodik, Genadiy Huawei Technologies Co. Ltd
* Van Zelst, Allert Qualcomm Incorporated
* Varshney, Prabodh Nokia
* Verma, Sindhu Broadcom Corporation
* Vermani, Sameer Qualcomm Incorporated
* VIGER, Pascal Canon Research Centre France
* Wang, Hao Self
* Wang, Huizhao Quantenna Communications, Inc.
* Wang, Lei Huawei R&D USA
* Wang, Xiaofei InterDigital, Inc.
* Wentink, Menzo Qualcomm
* Xin, Yan Huawei Technologies Co., Ltd
* Yang, Bo Huawei Technologies Co. Ltd
* YANG, RUI InterDigital, Inc.
* Yano, Kazuto Advanced Telecommunications Research Institute International (ATR)
* Yee, James MediaTek Inc.
* yi, yongjiang Futurewei Technologies
* Young, Christopher Broadcom Corporation
* Yu, Jian Huawei Technologies Co., Ltd
* Yu, Mao NXP Semiconductors
* Yuan, Fangchao HUAWEI
* Yukawa, Mitsuyoshi Canon, Inc.
* ZHANG, JIAYIN HUAWEI
* Zhang, Yan NXP Semiconductors
* Zhou, Yifan Huawei Technologies Co., Ltd
1. The meeting is full, we move from Webex to Zoom. Recess for 5 minutes.
2. Announcements:
	1. Members are encouraged to read the SP guidelines at the end of the doc [11-20/0425r16](https://mentor.ieee.org/802.11/dcn/20/11-20-0425-16-00be-2020-mar-may-tgbe-teleconference-agendas.docx).
	2. Any feedback/suggestions on the ways of working? Further notes in [11-20/0425r16](https://mentor.ieee.org/802.11/dcn/20/11-20-0425-16-00be-2020-mar-may-tgbe-teleconference-agendas.docx).
		1. I would like to have a document where we summarize the SPs that pass the 75%.
		2. We may want to think about a temporary change in process of SFD updates since we don’t have motions.
		3. It would be nice to have the strawpoll results within 24 hours after the meeting, so we have a feeling for what we have accomplished.
		4. AI: Sync up with ad-hoc chairs to have documents timely available so that information is available asap. ETA of 48 hours.
		5. It would be good with arranging somehow motions.
		6. I agree having some document clearly showing straw polls is useful.
		7. Electronic voting for motions would be good. Ensure that SPs are run in such a way that members from anywhere can express their opinion (indepentendly of location).
		8. Rules prohibit rules to be updated. The WG is working on a solution how to address this.
		9. It makes me nervous that we have SPs that have some sort of higher priority than other SPs. This is directly against the current rules. We can run motions electronically, it requires 50% members of the WG to be voting.
		10. How can members obtain voting right if there are no F2F meetings?
			1. New participant orientation: <https://mentor.ieee.org/802.11/dcn/20/11-20-0007-01-0000-802-11-new-participant-introduction.pptx>
			2. It is being looked at on how to attend plenary meetings. Nothing is decided yet.
		11. It’s good if the SP has a reference to the document it comes from.
	3. Some discussion on the SP document.
3. The agenda is to continue with technical contributions. The Chair asks if there is any objection to proceed with the agenda. No objection.

**Contributions**

* + - 1. **SP:** [**11-20/0056r2**](https://mentor.ieee.org/802.11/dcn/20/11-20-0056-02-00be-preparations-for-coordinated-ofdma.pptx)**, “Peparations for Coordinated OFDMA” – Rojan Chitrakar (Panasonic)**
			Do you support to add the following to the 11be SFD:
			The sharing AP may solicit feedback from one or more APs from the aP candidate set to learn the frequency resources preferred for Coordinated OFDMA transmissions.

			**Comments:**C: What do you mean with one or more APs? Are these shared APs?
			A: Yes.
			C: We don’t have a definition of AP candidate set?
			A: I believe we have it.
			C: What is the intention with this frequency resource?
			A: This is more like a recommendation.
			C: Does the SP assume that the sharing have a link with the shared AP in the AP candidate set?
			C: Is this like the CQI?
			A: No.
			C: This is really vague. I understand the idea here. But I can just say I prefer all of the RUs.
			C: How often is this done?
			A: This has to be done some time to time.
			C: I believe the preferred frequency resources need to be shared often. It’s unclear to me if it’s worth the overhead.
			C: The definition of the AP candidate set is not given in the SFD, but there is a place where that term is used. I suggest that we have a separate SP to define that term, or add a separate note defining it.
			A: The term itself is there in the SFD, so I believe it can be used.
			C: I also agree, there is no clear definition on the AP candidate set. I suggest you edit the SP and add that AP candidate set is TBD, since this has been done in other SPs and motions.
			A: Ok.
			C: Can we have unsolicited feedback?
			A: I don’t want to have a separate protocol for this. But yes I believe it can be there, but I don’t have it in this SP.

			**New text:**
			Do you support to add the following to the 11be SFD:
			The sharing AP may solicit feedback from one or more APs from the aP candidate set to learn the frequency resources preferred for Coordinated OFDMA transmissions.
			Note: AP Candidate set is TBD.

			**Result:**
			Y/N/A: 38/28/53
			2. **SP:** [**11-20/0071r0**](https://mentor.ieee.org/802.11/dcn/20/11-20-0071-01-00be-joint-transmission-for-11be.pptx)**, “joint Transmission for 11be” – Ron Porat (Broadcom)**
			Do you support adding to 11be SFD Joint Transmission for single and multi user under the multi-AP topic?

			**Discussion:**
			C: Can you add that PPDU for JT is the same as PPDU for single AP.
			A: I add something.
			C: Can you add that this is a feature for rel. 2.
			A: I have a concern regarding the note added earlier. It should be removed.

			**New text:**
			Do you support adding to 11be SFD Joint Transmission for single and multi user under the multi-AP topic?
			- Note: this feature is for rel. 2

			**Result:**
			Y/N/A: 89/10/28
			3. **Q&A + SPs:** [**11-20/0277r1**](https://mentor.ieee.org/802.11/dcn/20/11-20-0277-01-00be-coordinated-ofdma-protocol.pptx)**, “Coordinated OFDMA protocol” – Sharan Naribole (Samsung)

			Discussion:**C: I have two questions: Is the first and fourth bullet sensing necessary?
			A: The first bullet is more to set the terminology. But the bullet itself does not specify clearly any behaviour.
			C: You can already today allocate an RU that is not in my primary for OFDMA today. What is different with this contribution?
			A: The intention is before the TXOP for the shared AP to hear the sharing APs announcement.
			C: Slide 9, UL sharing, is it for Data or only ACKs?
			A: It could be trigger based access.
			C: Is this intention that the Sharing AP should allocate the resource within the BSS operating BW of the Shared AP? The Candidate set is a bit throwing me off.
			C: More comments regarding AP candidate set.
			C: The chair steps in and suggests that a SP is prepared defining canditade APs before running more SPs containing this undefined term.
			C: Can an AP candidate set have multiple sharing APs?
			A: No.
			4. [**11-20/0475r0**](https://mentor.ieee.org/802.11/dcn/20/11-20-0475-00-00be-coordinated-txop-sharing-in-ul.pptx)**, “Coordinated TXOP sharing in UL” – Miguel Lopez (Ericsson)**
			**Discussion:**
			C: What is the scope of the SP?
			A: I am explicitly referring to the given reference.
			C: Maybe we should then first decide the coordinated OFDMA/TDMA?
			A: You are correct that at this point, the SP is a bit high level. I am not proposing this for the SFD either.
			C: If you can be more specific it would be better.
			A: I understand your concern.
			C: When you say UL transmisisons. What kind of STAs are you thinking about? If it is TGbe STAs we can change the rules.
			A: I was aiming at .11be STAs.
			C: My key concern here is what is the expected gain, why would one want to do UL CAP-TDMA/OFDMA?
			A: Thanks.
			C: Can you remove the time/frequency resources? It could also be for example spatial?

**Adjourned at 12:59.**