IEEE P802.11
Wireless LANs

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| IEEE 802.11bf – Teleconference Minutes November 2021-January 2022  |
| Date: 2021-11-22 |
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Abstract

This document contains minutes for the TG 802.11bf teleconferences in November 2021 – January 2022.

Rev 0: Minutes for TG 802.11bf teleconference on the 22nd of November 2021.

**Monday, November 22, 2021, 9:00-11:00 am (ET)**

**Meeting Agenda:**

The meeting agenda is shown below, and published in the agenda document:

<https://mentor.ieee.org/802.11/dcn/21/11-21-1883-00-00bf-tgbf-meeting-agenda-2021-11-12.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. Presentation of submissions
7. Any other business
8. Adjourn
9. The vice chair, Assaf Kasher, calls the meeting to order at 9:06am (about 40 persons are on the call after a few minutes of the meeting).
10. The vice chair goes through “Meeting Protocol, Attendance, Voting & Documentation Status” (slide 4), “Participants have a duty to inform the IEEE” (slide 6), and “Ways to inform IEEE” (slide 7).

The vice chair makes a Call for Potentially Essential Patents. No potentially essential patents reported, and no questions asked.

The vice chair goes through “Other Guideline for IEEE WG meetings” (slide 8), “Patent related information” (slide 9), “ IEEE SA Copyright Policy” (slides 10 and 11), “Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct” (slide 12), “Participants in the IEEE-SA “individual process” shall act independently of others, including employers”(slide 13), and “IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints” (slide 14), and “Required notices” (slide 15).

The vice chair goes through the agenda (slide 16) and asks if there are any questions or comments on the agenda.

The vice chair asks if there is any objection to approve the modified agenda. No objection from the group so the agenda is approved.

The chair, Tony Han, announces that he has joined the call.

1. The Chair presents the TGbf timeline (slides 17 and 18). D0.1 is moved to March, but the remaining milestones have not been changed.

Q: Claudio points out that even if D0.1 is delayed until March, we still must work hard to meet this milestone.

Q: I believe four months will not be sufficient for moving from D0.1 to D1.0, so I expect we will need to also delay the milestone for D1.0.

Q: I believe it would be appropriate to add Comment Collection to the timeline.

1. The Chair presents slide 19, Call for contributions.
2. The Chair presents the teleconference times (slide 20).
3. Presentations:

**11-21/1754r2, “Legacy Support in 11bf – Next Steps”, Rojan Chitrakar (Panasonic):** The topic was brought up in the July meeting, proposing that 11bf should be supported by devices with legacy PHY (11n and 11ac).

Q: Why as a user would I be interested in upgrading e.g., 11ac with 11bf instead of just buying a new AP supporting 11ax?

A: I am thinking that there are huge legacy installations where 11bf may be useful, but an upgrade to 11ax would not be needed. You can also view it like “why don’t make use of all the devices out there”.

Q: I see a problem in that available implementations do not support features that are not certified by WFA and some of the features you need are not certified.

A: I believe it is implemented in many devices. Maybe not tested.

**11-21/1745r2, “Opportunistic WLAN Sensing”, Rajat Pushkarma (Panasonic):**  In this contribution, the usage of regular PPDU (A ‘regular PPDU’ is defined as any PPDU which is not an NDP for sensing) exchange which can be utilized to perform sensing measurement and obtain CSI for sub-7GHz.

Measurement results are also shown, where a 90 % accuracy for detection is reported.

Q: I am not convinced that it is sufficient to include information about TX parameters to allow for the sensing receiver to be able to compensate for variations.

A: TX power and beamforming matrix.

Q: On slide 3, are you thinking of using the Data PPDU or the ACK for opportunistic sensing?

A: In principle both could be used.

The chair asks about future plans. Rajat explains that he will discuss more off-line and based on the outcome have a SP in a future session.

**11-21/1799r0, “(E)DMG multi/bistatic radar”, Assaf Kasher (Qualcomm):** The contribution discusses a general proposal for the PHY and lower MAC of a bistatic/multi-static radar/sensing in DMG and EDMG. It assumes a single Tx/Rx chain per STA.

Q: Do you think we need any new field in the packets?

A: Yes, I expect so.

**Straw Poll 1:** Do you agree to add to the SFD the following text:

* EDMG transmitter initiator bi-static sensing is based on a BRP request in a BRP-RX/TX, BRP-TX, BRP-RX PPDU and the BRP response
* Feedback for the measurement is carried in the BRP response
	+ Feedback may be delayed
	+ Feedback may be aggregated (single feedback for some measurements, to facilitate doppler measurement)

**Result:** Y/N/A: 12/1/22

1. The chair asks if there is AoB. No response from the group.
2. The meeting is adjourned without objection at 11:02am.

**List of Attendees:**

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| Breakout | Timestamp | Name | Affiliation |
| TGbf | 11/22 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbf | 11/22 | Au, Oscar | Origin Wireless |
| TGbf | 11/22 | Aygul, Mehmet | VESTEL; IMU |
| TGbf | 11/22 | B, Hari Ram | NXP Semiconductors |
| TGbf | 11/22 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 11/22 | Chitrakar, Rojan | Panasonic Asia Pacific Pte Ltd. |
| TGbf | 11/22 | da Silva, Claudio | Meta Platforms, Inc. |
| TGbf | 11/22 | Dong, Xiandong | Xiaomi Inc. |
| TGbf | 11/22 | feng, Shuling | MediaTek Inc. |
| TGbf | 11/22 | Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 11/22 | Hsu, Ostrovsky | Xiaomi Inc. |
| TGbf | 11/22 | Huang, Lei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 11/22 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbf | 11/22 | Kim, Sang Gook | LG ELECTRONICS |
| TGbf | 11/22 | Lanante, Leonardo | Ofinno |
| TGbf | 11/22 | Lim, Dong Guk | LG ELECTRONICS |
| TGbf | 11/22 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbf | 11/22 | NANDAGOPALAN, SAI SHANKAR | Synaptics |
| TGbf | 11/22 | Ozbakis, Basak | Vestel Electronics Corp. |
| TGbf | 11/22 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbf | 11/22 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 11/22 | Rantala, Enrico-Henrik | Zeku |
| TGbf | 11/22 | Sahoo, Anirudha | National Institute of Standards and Technology |
| TGbf | 11/22 | Shellhammer, Stephen | Qualcomm Incorporated |
| TGbf | 11/22 | Trainin, Solomon | Qualcomm Incorporated |
| TGbf | 11/22 | Tsai, Tsung-Han | MediaTek Inc. |
| TGbf | 11/22 | Wei, Dong | NXP Semiconductors |
| TGbf | 11/22 | Wilhelmsson, Leif | Ericsson AB |
| TGbf | 11/22 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbf | 11/22 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |