IEEE P802.11
Wireless LANs

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| IEEE 802.11bf – Teleconference Minutes July-September 2021  |
| Date: 2021-07-27 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Leif Wilhelmsson | Ericsson AB | Mobilvägen 1, 22632 Lund, Sweden | +46-706-216956 | leif.r.wilhelmsson@ericsson.com |

Abstract

This document contains minutes for the TG 802.11bf teleconferences in July-September 2021.

Rev 0: Minutes for TG 802.11bf teleconference on the 27th of July.

**Tuesday, July 27, 2021, 10:00-12:00 am (ET)**

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/21/11-21-1202-01-00bf-tgbf-meeting-agenda-2021-07-09.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 10:06am (about 55 persons are on the call after a few minutes of the meeting). The chair, Tony Han, has some issues to be on the call but will try to join as soon as possible.
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 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 chair goes through the agenda (slide 16) and asks if there are any questions or comments on the agenda. Dongguk suggests changing the order of the presentations so that 1015 is presented before 990. There is no objection from the group to this change.

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

1. The Chair presents the TGbf timeline (slide 17).
2. The Chair presents slide 18, Call for contributions.
3. The Chair presents the teleconference times (slide 19).

The chair, Tony Han, announces that he now is on the call.

1. Presentations:

**11-21/0504r2, “Specification Framework for TGbf”, Claudio da Silva (Intel):** Claudio explains how the motions in document 1874r15 have been used to update the SFD and go through the document. Claudio reminds the group that D0.1 is targeted to be released in January 2022.

**11-21/1015r1, “Non-TB and TB measurement procedure
for WLAN sensing”, Dongguk Lim (LGE):**  The contribution has been presented earlier and based on some off-line discussions SP2 and SP3 have been updated.

After some discussions on the terminology used the straw polls, both SP2 and SP3 are slightly updated.

**Straw Poll 2:**

Do you agree to add the following into 11bf SFD?

* 11bf supports an NDPA/NDP-based measurement procedure in which:
	+ The measurement is initiated by an NDP Announcement frame.
	+ The transmitter shall transmit an NDP SIFS after the NDP Announcement frame.
	+ The detailed definition of the NDP Announcement frame is TBD.
	+ The process to validate the STA(s) participation is TBD

**Y/N/A:** 28/1/9

**Straw Poll 3:**

Do you agree to add the following into 11bf SFD?

* 11bf supports an Trigger/NDP-based measurement procedure in which:
	+ A Trigger frame is used to solicit the NDP transmission(s).
	+ The transmitter(s) shall transmit an NDP SIFS after the Trigger frame.
	+ The detailed definition of the Trigger frame is TBD.
	+ The process to validate the STA(s) participation is TBD.

**Y/N/A:** 29/0/7

**11-21/0990r2, “Discussion on sensing measurement flows”, Cheng Chen (Intel):** The contribution proposes a unified sensing measurement flow for AP initiated scenarios as well as proposals for non-AP initiated measurements.

**Straw Poll 1:**

Do you agree with the following?

* 11bf shall define a Trigger-based sensing measurement instance including the following:
	+ A polling process where an AP sends a Trigger frame to check the availability of STAs. If a STA is available, it responds with a CTS-to-self.
	+ An optional UL sounding where an AP sends a Trigger frame to solicit NDP transmission(s) from STA(s).
		- The UL sounding is present if at least one STA that is a sensing transmitter responds in the polling.
	+ An optional DL sounding where an AP sends NDPA frame followed by NDP to STA(s).
		- The DL sounding is present if at least one STA that is a sensing receiver responds in the polling.
	+ The order of the UL and DL sounding is TBD.
	+ The details of the format of the Trigger frame and the NDPA frame are TBD.

**Y/N/A:** 26/0/13

**11-21/1241r0, “Data Driving Hybrid Channel Model for WLAN Sensing”, Yi Lv (Huawei):** The benefits of hybrid channel modeling for sub-7 GHz are discussed in this contribution.

Q: The model assumes omni-directional antennas. How would you include antenna models?

A: This could be included as part of the channel as illustrated on page 9.

The chair asks about future plans related to this presentation. The presenter explains that the intention is to obtain feedback and comments on this presentation and based on this determine the next steps.

1. The Chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 11:39 am (ET).

**List of Attendees:**

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| Breakout | Timestamp | Name | Affiliation |
| TGbf | 7/27 | Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| TGbf | 7/27 | Au, Oscar | Origin Wireless |
| TGbf | 7/27 | Aygul, Mehmet | VESTEL; IMU |
| TGbf | 7/27 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 7/27 | Bredewoud, Albert | Broadcom Corporation |
| TGbf | 7/27 | Carney, William | Sony Group Corporation |
| TGbf | 7/27 | Choi, Jinsoo | LG ELECTRONICS |
| TGbf | 7/27 | da Silva, Claudio | Intel Corporation |
| TGbf | 7/27 | Dong, Xiandong | Xiaomi Inc. |
| TGbf | 7/27 | Du, Rui | Huawei Technologies Co., Ltd |
| TGbf | 7/27 | feng, Shuling | MediaTek Inc. |
| TGbf | 7/27 | Hall, Robert | CONSULTANT |
| TGbf | 7/27 | HAN, Xiao | Huawei Technologies Co., Ltd |
| TGbf | 7/27 | Handte, Thomas | Sony Corporation |
| TGbf | 7/27 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbf | 7/27 | Kim, Sang Gook | LG ELECTRONICS |
| TGbf | 7/27 | Lee, Hong Won | LG ELECTRONICS |
| TGbf | 7/27 | Lim, Dong Guk | LG ELECTRONICS |
| TGbf | 7/27 | Lumbatis, Kurt | CommScope, Inc. |
| TGbf | 7/27 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbf | 7/27 | Mirfakhraei, Khashayar | Zeku |
| TGbf | 7/27 | Ozbakis, Basak | Vestel Electronics Corp. |
| TGbf | 7/27 | Pushkarna, Rajat | Panasonic Asia Pacific Pte Ltd. |
| TGbf | 7/27 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 7/27 | Sahoo, Anirudha | National Institute of Standards and Technology |
| TGbf | 7/27 | Sand, Stephan | German Aerospace Center (DLR) |
| TGbf | 7/27 | Sarikaya, Behcet | IEEE Member / Self Employed |
| TGbf | 7/27 | Shellhammer, Stephen | Qualcomm Incorporated |
| TGbf | 7/27 | Sosack, Robert | Molex Incorporated |
| TGbf | 7/27 | SUH, JUNG HOON | Huawei Technologies Co., Ltd |
| TGbf | 7/27 | Sun, Bo | ZTE Corporation |
| TGbf | 7/27 | Trainin, Solomon | Qualcomm Incorporated |
| TGbf | 7/27 | Tsai, Tsung-Han | MediaTek Inc. |
| TGbf | 7/27 | Turkmen, Halise | IMU; Vestel |
| TGbf | 7/27 | Wang, Chao Chun | MediaTek Inc. |
| TGbf | 7/27 | Wang, Pu | Mitsubishi Electric Research Labs (MERL) |
| TGbf | 7/27 | Wei, Dong | NXP Semiconductors |
| TGbf | 7/27 | Xin, Yan | Huawei Technologies Co., Ltd |
| TGbf | 7/27 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbf | 7/27 | Zhang, Yuqiang | XGIMI Technology Co.Ltd |
| TGbf | 7/27 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |