IEEE P802.11  
Wireless LANs

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| IEEE 802.11bf – Teleconference Minutes March - May 2023 | | | | |
| Date: 2023-04-21 | | | | |
| Author(s): | | | | |
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| Sang Kim | LGE |  |  |  |

Abstract

This document contains minutes for the TG 802.11bf teleconferences in March-May 2023.

Rev 0: Minutes for TG 802.11bf teleconference on the 23rd-24th of March 2023.

Rev 1: Minutes for TG 802.11bf teleconference on the 27th of March 2023 added.

Rev 2: List of Attendees for teleconference on the 23rd and 27th of March 2023 added.

Rev 3: One typo corrected and the minutes for TG 802.11bf teleconference on the 6th of April 2023 added.

Rev 4: Minutes for TG 802.11bf teleconference on the 11th of April 2023 added.

Rev 5: List of Attendees for teleconference on the 6th and 11th of April 2023 added.

Rev 6: Minutes for TG 802.11bf teleconference on the 13th of April 2023 added.

Rev 7: Minutes for TG 802.11bf teleconference on the 18th of April 2023 added.

Rev 8: Minutes for TG 802.11bf teleconference on the 20th of April 2023 added.

### Thursday, March 23, 2023, 11:00pm - 01:00am (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0498-01-00bf-tgbf-meeting-agenda-2023-03.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 chair, Tony Han, calls the meeting to order at 11:00 pm ET (31 persons are on the call after 20 minutes of the meeting).
10. The 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 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 question on the agenda.

Claudio explains that contribution 511 has to be deferred to the next time.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 18).
2. The chair presents slide 19, Call for contributions.
3. The chair presents the teleconference times (slide 20). He mentions that 57meeting slots are being planned for the May meeting.
4. Presentation of submission:

**11-23/0476r1, “Comment resolution for OST miscellaneous comments” Chaoming Luo (OPPO):** This submission resolves miscellaneous comments under ‘OST’ topic. The following 9 CIDs are resolved: 1082, 1083, 1526, 1555, 1556, 1702, 1844, 1341, 1501.

CIDs 1082,1083,1526,1555, and 1556: Some clarifying discussion. As a result, the proposed resolution is slightly updated e.g. by adding text related to that an associated non-AP STA ignores this Responder Needed field.

Q: Probe response can also be broadcast, so I think it should be clarified that here it assumed that probe response is for the unicast case.

CIDs 1702, 1844, 1341, and 1501.

Some clarifying discussion related to 1844.

**Straw Poll:** Do you support resolutions to the following 9 CIDs and incorporate the text changes into the latest TGbf draft: 1082, 1083, 1526, 1555, 1556, 1702, 1844, 1341, 1501, in 11-23/0476r2.

Unanimously supported.

**11-23/0508r1, “Comment resolution for Misc Security comments”, Chaoming Luo (OPPO):**

This submission resolves security related comments under ‘Misc’ topic. The following 4 CIDs are resolved: 1478, 1479, 2263, 2265.

CID 1478, 1479, 2263, 2265: Some clarifying discussions. A note is added.

**Straw Poll:** Do you support resolutions to the following 4 CIDs and incorporate the text changes into the latest TGbf draft: 1478, 1479, 2263, 2265, in 11-23/0508r1.

Unanimously supported.

**11-23/0510r0, “Proposed resolutions for editorial comments on D1.0 - Part 1”, Claudio da Silva (Meta):** This document contains ”trivial” editorial comments that Claudio intends to be accepted. Claudio proposes that the group checks this offline so save time and then not have to go through these comments in detail during a call.

**11-23/0505r0, “LB272-DMG-CIDs-phase-report”, Alecsander Eitan (Qualcomm): This document proposes resolution to several LB272 DMG** CIDs related to adding phase value to DMG Sensing Image report.

CIDs 1031,1174, 1209, 1408, 1409: Some clarifying discussion and as a result the proposed resolutions are slightly updated.

**Straw Poll:** Do you agree with the proposed resolutions in revision 1 of this document?

Unanimously supported.

**11-23/0506r0, “LB272-DMG-CIDs-Earth-Coordinates”, Alecsander Eitan (Qualcomm):**

This document proposes resolution to several LB272 DMG CIDs related to Earth Coordinates in DMG Sensing.

CID 1306, 1307, 1308, 1309, 1310, 1324, and 1325: Some clarifying discussion and as a result the proposed resolutions are slightly updated.

Alecsander wants to update the text before running the SP.

1. The chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 00:55 am.

**List of Attendees:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbf | 3/23 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 3/23 | Chen, You-Wei | Mediatek Inc |
| TGbf | 3/23 | CHENG, yajun | Xiaomi Communications Co., Ltd. |
| TGbf | 3/23 | Chitrakar, Rojan | Huawei International Pte Ltd |
| TGbf | 3/23 | da Silva, Claudio | Meta Platforms; PWC, LLC |
| TGbf | 3/23 | Dong, Xiandong | Xiaomi Inc. |
| TGbf | 3/23 | Eitan, Alecsander | Qualcomm Technologies, Inc. |
| TGbf | 3/23 | Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 3/23 | Huang, Lei | Huawei International Pte Ltd |
| TGbf | 3/23 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbf | 3/23 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 3/23 | Sahoo, Anirudha | National Institute of Standards and Technology |
| TGbf | 3/23 | Tsai, Tsung-Han | MediaTek Inc. |
| TGbf | 3/23 | Wang, Pu | Mitsubishi Electric Research Labs (MERL) |
| TGbf | 3/23 | Wei, Dong | NXP Semiconductors |
| TGbf | 3/23 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |

### Monday, March 27, 2023, 10:00am - 12:00pm (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0498-03-00bf-tgbf-meeting-agenda-2023-03.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 chair, Tony Han, calls the meeting to order at 10:00 am ET (24 persons are on the call after 10 minutes of the meeting).
10. The 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 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 17) and asks if there are any question on the agenda.

There is a request to defer document 514.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 19).
2. The chair presents slide 20, Call for contributions.
3. The chair presents the teleconference times (slide 21).
4. Presentation of submission:

**11-23/0506r1, “LB272-DMG-CIDs-Earth-Coordinates”, Alecsander Eitan (Qualcomm):**

This document proposes resolution to several LB272 DMG CIDs related to Earth Coordinates in DMG Sensing.

The contribution has been updated according to the discussion in the last teleconference and Alecsander goes through these updates.

**Straw Poll:** Do you agree with CRs presented in document 11-23/0506r1?

Unanimously supported.

**11-23/0511r0, “Proposed resolutions for editorial comments on D1.0 - Part 2”, Claudio da Silva (Meta):** This document contains proposed resolutions for editorial comments on D1.0 (LB272). The text used as reference is D1.0.

CIDs: 1973, 1980, 1510, 2200, 1039, 1124, 1602, 1018, 1019, 1313, 1677, 1630, 1838, 2094, 1678, 1632, 1839, 1633, 1907, 1840, 2187, 1631, 2095, 1981

CIDs 1973 and 1980: Q: Why is instance not a good term?

A: I can check with Robert to get more information.

Q: I also agree, I don’t think measurement exchange sounds right.

Q: I agree with keeping instance, I just want to mention that the term exchange has been used in ranging.

CIDs 1510, 2200, and 1039: After some discussion it is agreed to use the terms Sensing Polling and Sensing Reporting. Claudio will update accordingly.

CIDs 1124,1602, 1018, and 1019: No discussion.

CID 1313: No discussion.

CIDs 1677, 1630, 1838, and 2094: No discussion.

CIDs 1678, 1632, and 1839: No discussion.

CIDs 1633, 1907, 1840, and 2187: No discussion.

CIDs 1631 and 2095: No discussion.

CID 1981: Q: What if we would use “if” throughout?

A: Note that Robert does not suggest that “if ” should be used everywhere.

**11-23/0515r0, “Comment Resolution in LB272 for Reporting CID (Part 2)”, Anirud Sahoo (NIST):** This document resolves comment in LB272 with CID 1147, 1156.

CID 1147: Q: I just want to remark that it does not make sense to write what NOT to do, as there is an infinite amount of things that should not be done. This is why it is written as a note.

As a result, the resolution is changed to rejected.

CID 1156: Some clarifying discussion.

Anirud explains he will update the document based on the received feedback.

**11-23/0477r0, “Comment resolution for sensing session”, Chaoming Luo (OPPO):**

This submission resolves comments related to the concept of ‘sensing session’. The following 31 CIDs are resolved: 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, 1036.

CIDs 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, and 1036:

Run out of time at page 21 of the document.

The Chair asks if there is any other contribution for tomorrow, because otherwise the call may be cancelled. The group agrees that the call can be cancelled.

1. The chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 12:03 pm.

**List of Attendees:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbf | 3/27 | Aygul, Mehmet | VESTEL; IMU |
| TGbf | 3/27 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 3/27 | Dash, Debashis | Apple Inc. |
| TGbf | 3/27 | da Silva, Claudio | Meta Platforms; PWC, LLC |
| TGbf | 3/27 | feng, Shuling | MediaTek Inc. |
| TGbf | 3/27 | Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 3/27 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbf | 3/27 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbf | 3/27 | Minayi Jalil, Amir | Aerial Technologies |
| TGbf | 3/27 | narengerile, narengerile | Huawei Technologies Co., Ltd |
| TGbf | 3/27 | Rafique, Saira | Istanbul Medipol University; Vestel |
| TGbf | 3/27 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 3/27 | Sahoo, Anirudha | National Institute of Standards and Technology |
| TGbf | 3/27 | Schweizer, Benedikt | Apple Inc. |
| TGbf | 3/27 | Wei, Dong | NXP Semiconductors |
| TGbf | 3/27 | Wilhelmsson, Leif | Ericsson AB |

### Thursday, April 6, 2023, 11:00pm - 01:00am (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0561-01-00bf-tgbf-meeting-agenda-2023-04.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 chair, Tony Han, calls the meeting to order at 11:04 pm ET (28 persons are on the call after 1 hour of the meeting).
10. The 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 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 question on the agenda.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 18).
2. The chair presents slide 19, Call for contributions.
3. The chair presents the teleconference times (slide 20). The chair also goes through the status of D1.0 CR status (slide 21).
4. Presentation of submission:

Claudio gives an update of the comment resolutions and expresses that there has been very good progress. It is noted that the queue is quite long and it may be a good idea to have an ad-hoc meeting before the May f2f. Claudio asks people who have comments to resolve, to provided how much time they believe they need.

Q: Is there a target time for when the comments should be resolved?

A: According to the timeline, we are targeting to generate D2.0 out of the July meeting.

Claudio also points at the 802.11 Style Guide 11-09/1034r2 and reminds the group to follow this in order to avoid additional comments later on. Claudio also briefly goes through this document and points at some examples where D1.0 is not written according to this style guide document.

**11-23/0477r2, “Comment resolution for sensing session”, Chaoming Luo (OPPO):**

This submission resolves comments related to the concept of ‘sensing session’. The following 31 CIDs are resolved: 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, 1036.

This is a continuation of the presentation that started in the last tele conference. Chaoming also points out that the document has been updated based on offline discussions.

CIDs 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, and 1036:

Some clarifying discussion related to whether there should be normative text in one of the notes.

Some clarifying discussion related to whether what discussed here also is also applicable to the DMG part.

Chaoming will update the document based on the received comments before running the SP.

**11-23/0515r1, “Comment Resolution in LB272 for Reporting CID (Part 2)”, Anirud Sahoo (NIST):** This document resolves comment in LB272 with CID 1147, 1156.

Revision 0 of this documents has been presented and Anirud goes thought the updates that have been made.

**Straw Poll:** Do you support the proposed comment resolutions in this document?

Unanimously supported.

**11-23/0514r1, “Comment Resolution in LB272 for Reporting CID (Part 1)”, Anirud Sahoo (NIST):** This document resolves comment in LB272 with CID 1789, 1074, 1002, 1077.

CID 1789: No discussion.

CID 1074: Some clarifying discussion related to terminology.

CIDs 1002 and 1077: A comment related to that the word “size” is no used elsewhere and we should not use it here to be consistent.

Anirud explains that he will update the document based on the received feedback.

**11-23/0511r1, “Proposed resolutions for editorial comments on D1.0 - Part 2”, Claudio da Silva (Meta):** This document contains proposed resolutions for editorial comments on D1.0 (LB272). The text used as reference is D1.0. CID 2098 has been added compared to r0.

CIDs: 1973, 1980, 1510, 2200, 1039, 2098, 1124, 1602, 1018, 1019, 1313, 1677, 1630, 1838, 2094, 1678, 1632, 1839, 1633, 1907, 1840, 2187, 1631, 2095, 1981

CID 1973: Some clarifying discussion.

CID 1980: Some clarifying discussion.

Run out of time.

1. The chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 01:01 am.

**List of Attendees:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbf | 4/6 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 4/6 | Dong, Xiandong | Xiaomi Inc. |
| TGbf | 4/6 | Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 4/6 | Hsu, Ostrovsky | Xiaomi Communications Co., Ltd. |
| TGbf | 4/6 | Lim, Dong Guk | LG ELECTRONICS |
| TGbf | 4/6 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbf | 4/6 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 4/6 | Wei, Dong | NXP Semiconductors |
| TGbf | 4/6 | Wilhelmsson, Leif | Ericsson AB |
| TGbf | 4/6 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |

### Tuesday, April 11, 2023, 10:00am - 12:00pm (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0561-03-00bf-tgbf-meeting-agenda-2023-03.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 chair, Tony Han, calls the meeting to order at 10:00 am ET (35 persons are on the call after 10 minutes of the meeting).
10. The 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 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 17) and asks if there are any question on the agenda.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 19).
2. The chair presents slide 20, Call for contributions.
3. The chair presents the teleconference times (slide 21). The chair also presents the D1.0 status. Claudio also gives an update of the CR situation.

Q: I suggest adding more teleconference calls, because the sessions at the f2f are not so effective because some members are not able to attend.

Q: I am of the opposite opinion. I believe the teleconferences are not very effective compared to the meetings at the f2f. I also have another suggestion, namely trying to focus the discussions so that similar presentations are treated together.

Q: If we have 3-4 calls per week, I believe we must devote different calls to different topics so that it is possible to skip some of the calls.

Some discussion about having an ad-hoc meeting in Lund, Sweden, before the Berlin f2f.

It is clarified that the alternative of having the ad-hoc at the same hotel as the f2f comes at a significant cost and also that Jon probably would have needed this information earlier in order to make such arrangements with the hotel.

1. Presentation of submission:

**11-23/0477r3, “Comment resolution for sensing session”, Chaoming Luo (OPPO):**

This submission resolves comments related to the concept of ‘sensing session’. The following 31 CIDs are resolved: 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, 1036.

Chaoming has presented r2 in a previous call and goes through the updates of this contribution that have been made based on the received feedback.

**Straw Poll:** Do you support the resolution to the following 31 CIDs and incorporate the changes into the latest TGbf draft: 1330, 1976, 2295, 1668, 1058, 1346, 1445, 1007, 1447, 1861, 2232, 1799, 1975, 2233, 1035, 1029, 2234, 1914, 1862, 1708, 2236, 1008, 1774, 2238, 1527, 2235, 2237, 1847, 1848, 1086, 1036, in 11-23/0477r3.

**Unanimously supported.**

**11-23/0514r2, “Comment Resolution in LB272 for Reporting CID (Part 1)”, Anirud Sahoo (NIST):** This document resolves comment in LB272 with CID 1789, 1074, 1002, 1077.

Anirud presented this in a previous call and goes through the updates made compared to the previous revision.

**Straw Poll:** Do you support the proposed resolution in this document?

**Unanimously supported.**

**11-23/0511r2, “Proposed resolutions for editorial comments on D1.0 - Part 2”, Claudio da Silva (Meta):** This document contains proposed resolutions for editorial comments on D1.0 (LB272). The text used as reference is D1.0. CID 2098 has been added compared to r0.

CIDs: 1973, 1980, 1510, 2200, 1039, 2098, 1124, 1602, 1018, 1019, 1313, 1677, 1630, 1838, 2094, 1678, 1632, 1839, 1633, 1907, 1840, 2187, 1631, 2095, 1981

Claudio goes through in detail the proposed resolutions to CIDs 1973 and 1980.

**Straw Poll:** Do you support the proposed resolution in this document?

**Unanimously supported.**

**11-23/0553r3, “LB272 Comment Resolution for INSTANCE category”, Ali Raissinia (Qualcomm):** This document proposes resolutions for CID 1041,1284, 1771, 1931, 1949, 2048 and 2125.

CID 1041: No discussion.

CID 1284: Some clarifying discussion.

CID 1771: Some clarifying discussion.

CID 1931: No discussion.

CID 1949: No discussion.

CID 2048: No discussion.

CID 2125: No discussion.

**Straw Poll:** Do you support the proposed resolution in this document?

**Unanimously supported.**

**11-23/0554r3, “LB272 Comment Resolution for OST category”, Ali Raissinia (Qualcomm):** This document proposes resolutions for CID 1707 and 1757:

CID 1707: Some clarifying discussion. Based on feedback the proposed resolution is changed to revised.

CID 1757: Run out of time.

1. The chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 12:01pm.

**List of Attendees:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbf | 4/11 | Aygul, Mehmet | VESTEL; IMU |
| TGbf | 4/11 | Beg, Chris | Cognitive Systems Corp. |
| TGbf | 4/11 | Carney, William | Sony Group Corporation |
| TGbf | 4/11 | CHENG, yajun | Xiaomi Communications Co., Ltd. |
| TGbf | 4/11 | da Silva, Claudio | Meta Platforms; PWC, LLC |
| TGbf | 4/11 | Dong, Xiandong | Xiaomi Inc. |
| TGbf | 4/11 | feng, Shuling | MediaTek Inc. |
| TGbf | 4/11 | Gao, Ning | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |
| TGbf | 4/11 | Kamel, Mahmoud | InterDigital, Inc. |
| TGbf | 4/11 | Kasher, Assaf | Qualcomm Incorporated |
| TGbf | 4/11 | Kim, Sang Gook | LG ELECTRONICS |
| TGbf | 4/11 | Lim, Dong Guk | LG ELECTRONICS |
| TGbf | 4/11 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. |
| TGbf | 4/11 | narengerile, narengerile | Huawei Technologies Co., Ltd |
| TGbf | 4/11 | Ozbakis, Basak | Vestel Electronics Corp. |
| TGbf | 4/11 | Raissinia, Alireza | Qualcomm Incorporated |
| TGbf | 4/11 | Sahoo, Anirudha | National Institute of Standards and Technology |
| TGbf | 4/11 | Sand, Stephan | German Aerospace Center (DLR) |
| TGbf | 4/11 | Sosack, Robert | Molex Incorporated |
| TGbf | 4/11 | Tang, Zhuqing | Huawei Technologies Co., Ltd |
| TGbf | 4/11 | Wang, Pu | Mitsubishi Electric Research Labs (MERL) |
| TGbf | 4/11 | Wei, Dong | NXP Semiconductors |
| TGbf | 4/11 | Wilhelmsson, Leif | Ericsson AB |
| TGbf | 4/11 | Yano, Kazuto | Advanced Telecommunications Research Institute International (ATR) |
| TGbf | 4/11 | Zhang, Jiayi | Ofinno |
| TGbf | 4/11 | Zhou, Pei | Guangdong OPPO Mobile Telecommunications Corp.,Ltd |

### Thursday, April 13, 2023, 11:00pm - 01:00am (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0561-05-00bf-tgbf-meeting-agenda-2023-04.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 chair, Tony Han, calls the meeting to order at 11:00 pm ET (32 persons are on the call after 30 minutes of the meeting).
10. The 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 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 18) and asks if there are any question on the agenda.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 20).
2. The chair presents slide 21, Call for contributions.
3. The chair presents the teleconference times (slide 22). The chair explains that he plans to request motions for an upcoming teleconference, either on April 25 or one of the following ones. The chair also goes through the updated status of D1.0 CR status (slides 21 and 22).

**Straw Poll:** If we have a 2 or 3 days ad-hoc meeting on during July 6, 7, 8, 2023, in the Ericsson Office, Lund, Sweden for the purpose of TGbf comment resolution and consideration of document submissions, please choose:

* + Attend in person
  + Attend online
  + Do not support Ad-hoc meeting
  + Abstain

**Result:** in person/online/do not support/abstain: 8/11/2/4

1. Presentation of submission:

**11-23/0554r3, “LB272 Comment Resolution for OST category”, Ali Raissinia (Qualcomm):** This document proposes resolutions for CID 1707 and 1757. Ali started to present in the previous teleconference but ran out of time.

CID 1707: Last time it was suggested to accept the proposed comment, but this has after some offline discussions been changed to revised. Some clarifying discussion.

CID 1757: Some clarifying discussion, and the text is slightly updated based on feedback from the group.

**Straw Poll:** Do you agree with the resolution for CID 1757 in the document 11-23-0554?

**Result:** Unanimously supported.

**11-23/0555r2, “Resolutions for frame and protocol”, Xiandong Dong (Xiaomi):** This submission proposes resolutions to editorial comments submitted in LB272. The text used as reference D1.0. CIDs: 1286, 2151, 2254, 2288, 2297 (5 CIDs)

CID 1286: No discussion.

CID 2151: Some clarifying discussion. The text in the contribution is updated based on feedback from the group.

CID 2254: No discussion.

CID 2288: No discussion.

CID 2297: No discussion.

Xiandong explains that he will have some offline discussion.

**11-23/0556r1, “Resolutions for Editorial Comments in LB272 for the reporting part”, Xiandong Dong (Xiaomi):** This submission proposes resolutions to editorial comments submitted in LB272. The text used as reference D1.0. CIDs: 1144, 1145, 1382, 1670, 1735, 1874, 1917, 1943, 1982 (10 CIDs)

CID 1144: Some clarifying discussion.

CID 1145: No discussion

CID 1382: Some clarifying discussion.

CID 1670: Some clarifying discussion.

CID 1735: Some clarifying discussion.

CID 1874: No discussion.

CID 1917: Some discussion after which it is agreed that there are issues with the sentence and it is agreed to remove this CID and let Claudio handle it.

CID 1943: The issue has been addressed in another resolution of another CID and therefore this CID is removed from the document. It is reassigned to Claudio.

CID 1982: It is agreed to transfer this CID to another document (Mengshi).

**Straw Poll:** Do you support the proposed resolutions in r2 of this contribution?

**Result:** Unanimously supported.

**11-23/0557r0, “Comment Resolution in LB272 for OST CID (Part 1)”, Anirud Sahoo (NIST):** This document resolves comments in LB272 with CIDs 1066, 1067, 1068 and 1069.

CID 1066: Some clarifying discussion.

CID 1067: Some clarifying discussion.

CID 1068: Some clarifying discussion.

CID 1069: Some clarifying discussion.

Anirud proposes to remove CID 1068 from this document and run a SP for the remaining CIDs

**Straw Poll:** Do you support the proposed resolutions in this contribution, with CID 1068 removed?

**Result:** Unanimously supported.

1. The chair asks if there is any other business. No response from the group.
2. The meeting is adjourned without objection at 00:56 am.

### Tuesday, April 18, 2023, 10:00am - 12:00pm (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0561-07-00bf-tgbf-meeting-agenda-2023-04.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 chair, Tony Han, calls the meeting to order at 10:01 am ET (37 persons are on the call after 30 minutes of the meeting).
10. The 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 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 19) and asks if there are any question on the agenda. No response from the group.

The chair asks if there is any objection to approve the agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 21).
2. The chair presents slide 22, Call for contributions.
3. The chair presents the teleconference times (slide 23). The chair also goes through the updated status of D1.0 CR status (slide 24) and announces that motions will be conducted on April 25.
4. Presentation of submission:

**11-23/0555r3, “Resolutions for frame and protocol”, Xiandong Dong (Xiaomi):** This submission proposes resolutions to editorial comments submitted in LB272. The text used as reference D1.0. CIDs: 1286, 2151, 2254, 2288, 2297 (5 CIDs)

Revision 2 of the contribution has been presented and Xiandong presents the updates that have been made to CIDs 1286 and 2151.

CID 1286: No discussion.

CID 2151: Quite long discussion regarding how many measurements can be done in one availability window. As a result, this CID is removed from the set of CIDs that are straw polled as ready for motion.

**Straw Poll:** Do you support the resolution to the following 4 CIDs and to incorporate the changes proposed in IEEE 802.11-23/0555r4 to the latest 11bf draft for the following CIDs: 1286 ~~2151~~ 2254 2288 2297?

**Result:** Unanimously supported.

**11-23/0525r0, “LB272 Resolutions for Sensing Capabilities discovery”, Pei Zhou (OPPO)**

This submission proposes resolutions to the following LB272 CIDs.

* 1004, 1005, 1028, 1079, 1080, 1332, 1430, 1446, 1860, 1912, 1995, 2231.

The text used as reference is 802.11bf D1.0.

CIDs 1004, 1005, 1028, 1079, 1080, 1332, 1430, 1446, 1860, 1912, 1995, 2231: Some clarifying discussion.

**Straw Poll**: Move to approve resolutions to CIDs 1004, 1005, 1028, 1079, 1080, 1332, 1430, 1446, 1860, 1912, 1995, 2331, as specified in doc.: 11-23/0525r0 and incorporate the text changes into the latest TGbf draft.

**Result:** Unanimously supported.

**11-23/0526r1, “LB272 Resolutions for CID 1951 and 1979”, Pei Zhou (OPPO):**

This submission proposes resolutions to the following LB272 CIDs:

* 1951, 1979.

The text used as reference is 802.11bf D1.0.

CID 1951: Based on feedback from the group the proposed resolution is updated.

CID 1979: No discussion.

It is agreed to have more discussions off-line to update the text related to CR 1951.

**11-23/0527r1, “LB272 Resolutions for MS Termination”, Pei Zhou (OPPO):** This submission proposes resolutions to the following LB272 CIDs.

* 1163, 1164, 1166, 1167, 1168, 1503, 1672, 1745, 1746, 1747, 1922, 1923, 2004, 2208, 2212.

The text used as reference is 802.11bf D1.0.

CID 1922: No discussion.

CID 1163: No discussion.

CID 1164: No discussion.

CID 1166: Based on feedback from Claudio, the CID is deferred.

CID 1745,2212,1167,1503,1746,1923,2004,2208: No discussion.

CID 1168: No discussion.

CID 1747: No discussion.

**Straw Poll:** Move to approve resolutions to CIDs 1163, 1164, ~~1166,~~ 1167, 1168, 1503, *1672*, 1745, 1746, 1747, 1922, 1923, 2004, 2208, 2212, as specified in doc.: 11-23/0527r2 and incorporate the text changes into the latest TGbf draft.

**Result:** Unanimously supported.

**11-23/0512r1, “Clause 6.3 new format”, Narengerile (Huawei):** This contribution presents a top level overview of the most significant changes to 11bf D1.0 Clause 6, to align with the new format used in the baseline (i.e., 802.11 REVme D2.1). The contribution also presents the plan to resolve all 82 comments under the topic of “MLME” for LB272 [2]. The goal is to convert the current subclause 6.3 in 11bf D1.0 to subclause 6.4 and 6.5 using the same format as in REVme D2.1.

1. The chair asks if there is any other business. It is pointed out that in document 527, the resolution for CID 1672 is actually missing, although it is stated that it is addressed. CID is also included in the SP. It is agreed that Pei will get some time in the next call to take care of this.
2. The meeting is adjourned without objection at 12:04 pm.

### Thursday, April 20, 2023, 11:00pm - 01:00am (ET)

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-0561-08-00bf-tgbf-meeting-agenda-2023-04.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 chair, Tony Han, calls the meeting to order at 11:00pm ET (33 persons are on the call after 30 minutes of the meeting).
10. The 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 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 20) and asks if there are any question on the agenda. Xiandong explains that he has uploaded a new revision of document 555 and would like to add this to the agenda. Naren explains she would like to swap her two presentations.

The chair asks if there is any objection to approve the modified agenda. No response from the group. As a result, the agenda is approved.

1. The chair presents the TGbf timeline (slide 22).
2. The chair presents slide 23, Call for contributions.
3. The chair presents the teleconference times (slide 24). The chair also goes through the updated status of D1.0 CR status (slides 25 and 26) and announces that motions will be conducted on April 25.

Leif presents information related to a potential ad-hoc meeting in Lund in July. The information can be found in document 11-22/0664r0.

1. Presentation of submission:

**11-23/0526r2, “LB272 Resolutions for CID 1951 and 1979”, Pei Zhou (OPPO):**

This submission proposes resolutions to the following LB272 CIDs:

* 1951, 1979.

The text used as reference is 802.11bf D1.0.

Revision 1 of this document was presented in the last call, and Pei goes through the updates that have been made.

**Straw Poll:** Move to approve resolutions to CID 1951 and 1979, as specified in doc.: 11-23/0526r2 and incorporate the text changes into the latest TGbf draft.

**Result:** Unanimously supported

**11-23/0527r3, “LB272 Resolutions for MS Termination”, Pei Zhou (OPPO):** This submission proposes resolutions to the following LB272 CIDs.

* 1163, 1164, 1166, 1167, 1168, 1503, 1672, 1745, 1746, 1747, 1922, 1923, 2004, 2208, 2212.

The text used as reference is 802.11bf D1.0.

Presented last time, but one CID was missed. Also, one other resolution is updated based on offline discussions with the Technical Editor.

**Straw Poll:** Move to approve resolutions to CIDs 1163, 1164, 1166, 1167, 1168, 1503, 1672, 1745, 1746, 1747, 1922, 1923, 2004, 2208, 2212, as specified in doc.: 11-23/0527r3 and incorporate the text changes into the latest TGbf draft.

**Result:** Unanimously supported.

**11-23/0555r6, “Resolutions for frame and protocol”, Xiandong Dong (Xiaomi):** This submission proposes resolutions to editorial comments submitted in LB272. The text used as reference D1.0. CIDs: 1286, 2151, 2254, 2288, 2297 (5 CIDs).

2151 was deferred in the last call, and Xiandong presents the updates that have been made for this CID.

Based on feedback from the group the proposed resolution is slightly updated.

**Straw Poll:** Do you support the resolution to the following 5 CIDs and to incorporate the changes proposed in IEEE 802.11-23/0555r7 to the latest 11bf draft for the following CIDs: 1286 2151 2254 2288 2297?

**Result:** Unanimously supported.

**11-23/0478r2, “LB272 comments reporting comments resolution”, Rui Du (Huawei):**

This submission contains the proposed comment resolutions for the CIDs 1647, 2172, 2271, 1161, 1162, 2148, and 1785.

CIDs 1647, 2172, 2271: Some clarifying with respect what is updated in the equation.

CIDs 1161, 1162, 2148, 1785:

Q: I believe CID 2148 should actually be another number.

Claudio confirms this and informs that the correct number is 2047.

It is pointed out that there is another related CID and with corresponding resolution, and these should be aligned.

Therefore, it is decided to do more work offline before running the SP.

**11-23/0528r0, “**LB272 Resolutions for MS Termination frame**”, Pei Zhou (OPPO):**

This submission proposes resolutions to the following LB272 CIDs.

* + 1283, 2102, 2278, 1701.

The text used as reference is 802.11bf D1.0.

CID 1701: Q: I prefer Option 2. Some clarifying discussion.

**Straw Poll:** Which option do you prefer when AP terminates measurement setup(s) in non-TB case.

* Option 1: Do not add a Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) action frame, just use implicit termination procedure if AP wants to terminate measurement setup(s) in non-TB case.
* Option 2: Add a Protected Sensing Measurement Termination frame with no-ACK as one of the Protected Sensing (i.e., category 38) action frame, AP may transmit this frame to explicitly terminate measurement setup(s) in non-TB case.

**Result:** Option1/Option 2/Abstain: 5/10/11

CID 2278: No discussion.

CID 2102: Some clarifying discussion. It is also pointed out that a note cannot be normative and therefore the word “shall” should not be used. After some discussion it is decided to change the resolution to rejected.

CID 1283: After some discussion it is agreed to defer this CID.

It is agreed to defer the SP for this document.

**11-23/0538r0, “LB272 CR for Sensing Terminologies”, Zinan Lin (InterDigital):** This submission presents proposed resolutions for the following 14 CIDs: 1023, 1024, 1032, 1327, 1328, 1329, 1339, 1676, 1821, 1822, 1853,1884,1899,2259. The proposed changes are based on 802.11bf/D1.0

CIDs 1023, 1024, 1032, 1327, 1328, 1329, 1339, 1676, 1821, 1822, 1853, 1884, 1899, 2259

Some brief clarifying discussion.

**Straw Poll:** Do you support the proposed resolutions in r1 of this document?

**Results:** Unanimously supported.

**11-23/0625r0, “New Clause 6 Draft Text”, Narengerile (Huawei):** Naren starts to go through the document, which is related to contribution 11-23/0512r1, which was presented in the last session.

Run out of time. Naren asks to be allocated some time also in the next teleconference.

1. The chair asks if there is any other business. No response from the group
2. The meeting is adjourned without objection at 01:00am.