IEEE P802.11  
Wireless LANs

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| IEEE 802.11bf - July 2023 Ad-Hoc Meeting Minutes | | | | |
| Date: 2023-07-09 | | | | |
| Author(s): | | | | |
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Abstract

Rev 0: This document contains the IEEE 802.11bf July 2023 Ad-Hoc meeting minutes.

Rev 1: List of attendees added.

### Thursday, July 6, 2023, 8:00-10:00 am

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-01-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 8:07am (26 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. 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). The chair asks if there are any questions or comments on the agenda. No response from the group. The chair also points out that we may have some discussion about privacy at the end of the ad-hoc meeting.

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

1. The Chair presents the TGbf Timeline (slide 20).
2. The Chair presents Call for Contribution (slide 21).
3. The Chair presents the Teleconference Times (slides 22 and 23).

The Chair presents Guidance for Mix mode Ad-Hoc meeting (slide 24).

1. The technical editor goes through D1.0 CR Status (slides 25 and 26) and the chair goes through slide 27.
2. Presentation of submissions:

**11-23/1035r1, “CR for LB272 NDPA Instance TTT Part**2**”, Junghoon Suh (Huawei):**

This submission proposes resolutions for the follwing 16 LB272 CIDs: 1629, 1642, 1685, 1686,

1687, 1759, 1767, 1768, 1769, 1770, 1824, 1825, 1826, 1827, 1828, and 1829. The proposed changes are based on IEEE 802.11bf D1.1 [1].

CID 1629: No discussion.

CID 1642: No discussion.

CID 1685: No discussion.

CID 1686: No discussion.

CID 1687: No discussion.

CID 1759: Some clarifying discussion. The proposed resolution is changed from accepted to revised as it is slightly updated based on feedback from the group.

CID 1767: Some clarifying discussion. The proposed resolution is changed from revised to rejected.

CID 1768: Based on some discussion in the group, the proposed resolution is changed from rejected to revised and the motivation is updated.

CID 1769: Some clarifying discussion.

CID 1770: Some clarifying discussion.

CID 1824: The resolution is changed to revised, with “the” instead of the proposed “an”.

CID 1825: Some clarifying discussion.

CID 1826: The proposed resolution is changed to accepted.

CID 1827: No discussion.

CID 1828: No discussion.

CID 1829: Changed to accepted.

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

**Result:** Unanimously supported.

**11-23/0994r0, “Proposed resolutions for technical and editorial comments on D1.0”, Claudio da Silva (Meta Platforms):** This document contains proposed resolutions for technical and editorial comments on D1.0 (LB272). The text used as reference is D1.0.

CIDs: 2224, 2061, 1422, 1557, 1618, 1620, 1493, 2261, 2262, 2264, 1977, 1262, 1794, 2023, 2191, 1239, 1335, 1780, 1781

CID 2224: No discussion.

CID 2061: Some clarifying discussion and the text in the proposed resolution is updated based on feedback from the group.

CID 1422: No discussion.

CID 1557: Some clarifying discussion. It is pointed out that this has impact also on SBP.

CIDs 1618 and 1620: Some clarifying discussion.

CIDs 1493, 2261, 2262, and 2264: Some clarifying discussion related to what document can be used as baseline.

CID 1977: Based on feedback from the group the text in the proposed resolution is slightly updated.

Run out of time.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 9:57am.

### Thursday, July 6, 2023, 10:30 am-12:30 pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-01-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 10:30am (25 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. The chair asks if there is any objection to approve the agenda by unanimous consent. No objection from the group so the agenda is approved.
12. -
13. -
14. –
15. –
16. Presentation of submissions:

**11-23/0994r0, “Proposed resolutions for technical and editorial comments on D1.0”, Claudio da Silva (Meta Platforms):** This document contains proposed resolutions for technical and editorial comments on D1.0 (LB272). The text used as reference is D1.0.

CIDs: 2224, 2061, 1422, 1557, 1618, 1620, 1493, 2261, 2262, 2264, 1977, 1262, 1794, 2023, 2191, 1239, 1335, 1780, 1781

This is a continuation of the presentation in the previous session.

CID 1262: No discussion.

CID 1794: No discussion.

CID 2023: No discussion.

CID 2191: Some clarifying discussion about that the purpose of the sentence is to make things normative.

CIDs 1239 and 1335: Suggested to remove the word sensing after SBP, since S already indicates that it refers to sensing.

CIDs 1780 and 1781: Some clarifying discussion, but there is agreement that reject the comment is the proper resolution.

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

**Result:** Unanimously supported.

**11-23/1014r1, “****LB272 CR for Threshold-based Reporting – Part 3”, Mengshi Hu (Huawei):** This submission contains the proposed comment resolutions of CIDs in 23/0314 LB272 comments and approved resolutions.

9 comments related to the threshold-based reporting are resolved.

Resolved CIDs: 1055, 1737, 1738, 1783, 1982, 1984, 1985, 2039, and 2040.

CID 1055: No discussion.

CIDs 1737, 1738, 1783, 1982, 1984, 1985, 2039, and 2040: A typo is noted and corrected. Some clarifying discussion and as a result the text is slightly updated.

**Straw Poll:** Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 1055, 1737, 1738, 1783, 1982, 1984, 1985, 2039, and 2040, in 11-23/1014r2.

**Result:** Unanimously supported.

**11-23/1071r0, “Comment Resolutions for 11bf D1.0 Sensing Measurement Report Container field CIDs”, Rojan Chitrakar (Huawei):**

This submission proposes resolutions of comments received from TGbf LB272 (TGbf Draft 1.0).

* CIDs: 1053 1153 1155 1281 1412 1575 1576 1577 1578 1579 1580 1581 1584 1586 1587 1680 1691 1692 1870 1871 1891 1937 2256 2267 (24 CIDs)

First some discussion about the major CIDs.

CID 1577: Some clarifying discussion.

CID 1937: Based on feedback from the group, the table with the CSI values is updated.

CID 1053: No discussion.

CID 1153: No discussion.

CID 1155: No discussion.

CID 1281: Some clarifying discussion.

CID 1412: No discussion.

CID 1575: No discussion.

CID 1576: No discussion.

CID 1578: Some clarifying discussion.

CID 1579: Some clarifying discussion.

CID 1580: No discussion.

CID 1581: No discussion.

CID 1584: No discussion.

CID 1586: No discussion.

CID 1587: No discussion.

CID 1680: No discussion.

CID 1691: Based on feedback from the group, the proposed resolution is slightly updated.

Run out of time. Rojan requests to continue in am1 tomorrow.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 12:28 pm.

### Thursday, July 6, 2023, 1:30pm-3:30pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-01-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 1:30pm (20 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. - The chair asks if there is any objection to approve the agenda by unanimous consent. No objection from the group so the agenda is approved.
12. -
13. -
14. –
15. –
16. Presentation of submissions:

**11-23/0530r1, “LB272 comments measurement setup comments resolution part 2”, Rui Du (Huawei):** This submission contains the proposed comment resolutions for the CIDs 2165, 1561, 1038, 1562 and 1598.

CID 2165: A typo is identified. Some clarifying discussion.

CID 1561: Based on feedback from the group, the proposed resolution is changed from revised to rejected.

CIDs 1038, 1562, and 1598: Rather detailed clarifying discussion.

**Straw Poll:** Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 2165, 1561, 1038, 1562 and 1598 in 11-23/0530r2?

**Result:** Unanimously supported.

**11-23/0867r1, “LB272 comments SBP comments resolution”, Rui Du (Huawei):** This submission contains the proposed comment resolutions for the CIDs 2072.

CID 2072:

Run out of time.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 3:31pm.

### Thursday, July 6, 2023, 4:00pm-6:00pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-01-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 4:00pm (24 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. The chair goes through the agenda and proposes to start the first session tomorrow at 8:30am. No objection from the group. The chair asks if there is any objection to approve the agenda by unanimous consent. No objection from the group so the agenda is approved.
12. -
13. -
14. –
15. –
16. Presentation of submissions:

**11-23/0867r1, “LB272 comments SBP comments resolution”, Rui Du (Huawei):** This submission contains the proposed comment resolutions for the CIDs 2072.

This is a continuation from the previous session.

A rather long discussion about found issues that don’t really relate to the CID.

CID 2072: The proposed resolution is changed from revised to rejected.

**Straw Poll:** Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 2072 in 11-23/0867r1?

**Result:** Unanimously supported.

**11-23/1126r2, “LB272 CR for CIDs on TF Sounding Phase – Part 2”, Dong Wei (NXP):**

This document aims to resolve the following 18 LB272 comments: CIDs 1013, 1453, 1573, 1610, 1612, 1613, 1615, 1617, 1689, 1712, 1733, 1866, 2014, 2034, 2035, 2037, 2282, and 2286.

R0: Initial version

R1: Add CIDs 1453, 1610, and 1612

CID 1689: This CID is deferred as it is identified by the group that more work is needed.

CID 1712: No discussion.

CID 2282: No discussion.

CID 2034: No discussion.

CID 1013: No discussion.

CIDs 1733 and 2286: These CIDs are deferred.

CID 1610: Based on feedback from the group the text of the proposed resolution is slightly updated.

CID 1453: The proposed resolution is changed from accepted to revised.

CID 1866: Some clarifying discussion.

CID 1612: The resolution is changed from accepted to rejected.

Run out of time.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 5:53 pm.

**List of Attendees:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |  |
| TGbf | 7/6 | Beg, Chris | Cognitive Systems Corp. |  |
| TGbf | 7/6 | Wilhelmsson, Leif | Ericsson AB |  |
| TGbf | 7/6 | feng, Shuling | MediaTek Inc. |  |
| TGbf | 7/6 | da Silva, Claudio | Meta Platforms; PWC, LLC |  |
| TGbf | 7/6 | Raissinia, Alireza | Qualcomm Incorporated |  |
| TGbf | 7/6 | McCann, Stephen | Huawei Technologies Co., Ltd |  |
| TGbf | 7/6 | SUH, JUNG HOON | Huawei Technologies Co., Ltd |  |
| TGbf | 7/6 | Xin, Yan | Huawei Technologies Co., Ltd |  |
| TGbf | 7/6 | Kamel, Mahmoud | InterDigital, Inc. |  |
| TGbf | 7/6 | Wei, Dong | NXP Semiconductors |  |
| TGbf | 7/6 | narengerile, narengerile | Huawei Technologies Co., Ltd |  |
| TGbf | 7/6 | Chitrakar, Rojan | Huawei International Pte Ltd |  |
| TGbf | 7/6 | Hsu, Ostrovsky | Xiaomi Communications Co., Ltd. | |
| TGbf | 7/6 | Luo, Chaoming | Beijing OPPO telecommunications corp., ltd. | |
| TGbf | 7/6 | Sand, Stephan | German Aerospace Center (DLR) |  |
| TGbf | 7/6 | Wang, Pu | Mitsubishi Electric Research Labs (MERL) | |

### Friday, July 7, 2023, 8:00-10:00 am

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-02-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 8:32am (20 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. 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). The chair asks if there are any questions or comments on the agenda. Rojan requests to present first as he has another meeting afterwards. No objection from the group.

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

The Chair points out that we only finished five presentations yesterday, which was below expectation. It is suggested to try to defer the controversial topics to the end of the ad-hoc.

1. -
2. -
3. -
4. -
5. -
6. Presentation of submissions:

**11-23/1071r1, “Comment Resolutions for 11bf D1.0 Sensing Measurement Report Container field CIDs”, Rojan Chitrakar (Huawei):** This submission proposes resolutions of comments received from TGbf LB272 (TGbf Draft 1.0).

* CIDs: 1053 1153 1155 1281 1412 1575 1576 1577 1578 1579 1580 1581 1584 1586 1587 1680 1691 1692 1870 1871 1891 1937 2256 2267 (24 CIDs)

This is a continuation of the presentation yesterday, where we ran out of time.

CID 1692: Some clarifying discussion.

CID 1870: No discussion.

CID 1871: No discussion.

CID 1891: No discussion.

CID 1937: Discussed in length yesterday.

CID 2256: No discussion.

CID 2267: No discussion.

**Straw Poll:** Do you agree to incorporate the changes proposed in doc: IEEE 802.11-23/1071r1 to the latest 11bf draft for the following CIDs? 1053 1153 1155 1281 1412 1575 1576 1577 1578 1579 1580 1581 1584 1586 1587 1680 1691 1692 1870 1871 1891 1937 2256 2267 (24 CIDs).

**Result:** Unanimously supported.

**11-23/1126r2, “LB272 CR for CIDs on TF Sounding Phase – Part 2”, Dong Wei (NXP):**

This document aims to resolve the following 18 LB272 comments: CIDs 1013, 1453, 1573, 1610, 1612, 1613, 1615, 1617, 1689, 1712, 1733, 1866, 2014, 2034, 2035, 2037, 2282, and 2286.

This is a continuation from the day before.

CID 1613: No discussion.

CIDs 2035 and 2014: Some clarifying discussion.

CID 2037: No discussion

CID 1617: No discussion.

CID 1615: No discussion.

CID 1573: Based on feedback from the group, the proposed resolution is changed to revised with a slightly different proposed text.

Return to CID 1733 and 2286: Agreed to defer these and discuss mode offline.

CID 1689: Will work more offline

These three CIDs are removed from the SP.

**Straw Poll:** Do you agree to the resolutions provided in the document 11-23/1126r2for the following 15 CIDs: 1013, 1453, 1573, 1610, 1612, 1613, 1615, 1617, ~~1689~~, 1712, ~~1733~~, 1866, 2014, 2034, 2035, 2037, 2282, and ~~2286~~?

**Result:** Unanimously supported.

**11-23/1030r1, “LB272 CR for OST CID 1978”, Narengerile (Huawei):** This document proposes the comment resolution for CID 1978.

CID 1978: No discussion.

**Straw Poll:** Do you agree to the comment resolutions provided for CID 1978 to be included in the latest 11bf Draft?

**Result:** Unanimously supported.

**11-23/1106r0, “LB272 CR for OST CID -Part 2”, Narengerile (Huawei):** This document proposes the comment resolution for CIDs 1755 and 2185.

CID 1755: No discussion.

CID 2185: No discussion.

**Straw Poll:** Do you agree to the comment resolutions provided for CID 1755 and 2185 to be included in the latest 11bf Draft?

**Result:** Unanimously supported.

**11-23/1081r1, “LB272 - LB272 Comment resolutions on monostatic sensing”, Yan Xin (Huawei):** This submission includes the resolutions for the following four comments:

1990, 1763, 1764, 1766 on Subclauses 28.9.4 and 11.55.3.6.2.3 in P802.11bf D1.0.

CID 1990: No discussion.

CID 1766: Some clarifying discussion.

CID 1763: Some clarifying discussion.

CID 1764: Based on feedback from the group it is decided to defer this CID.

**Straw Poll:** Do you agree to the comment resolutions provided for CIDs 1990, 1766, and 1763 in r2 to be included in the latest 11bf Draft?

**Result:** Unanimously supported.

Run out of time.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 10:03 am.

### Friday, July 7, 2023, 10:30-12:30 am

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-03-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 10:30am (19 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. The chair goes through the agenda (slide 17). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
4. -
5. Presentation of submissions:

**11-23/1082r1, “LB272 - LB272 Comment resolutions on multistatic sensing”, Yan Xin (Huawei):** This submission includes the resolutions for the following four comments:on Subclause in P802.11bf D1.0. CIDs 1987, 1988, 1989, 1765.

CID 1987: No discussion.

CIDs 1988 and 1989: No discussion.

CID 1765: No discussion.

**Straw Poll:** Do you agree to the comment resolutions provided for CIDs 1987, 1988, 1989 and 1765 in r1 to be included in the latest 11bf Draft?

**Result:** Unanimously supported.

**11-23/1184r0, “LB272 CR for CID 1589”, Mahmoud Kamel (InterDigital):** This submission proposes resolutions for CID 1589 in subclause 9.4.1.75 in P802.11bf D1.0.

CID 1589: No discussion.

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

**Result:** Unanimously supported.

**11-23/1157r0, “LB272 CR for CID 2241”, Mahmoud Kamel (InterDigital):** This submission proposes resolutions for CID 2241 in subclause 11.55.1.4 in P802.11bf D1.0.

CID 2241: There is request from the group to defer this CID to allow for more time to digest the proposed resolution.

**11-23/0759r0, “LB272 CR for CIDs on Reporting – Part 1”, Mahmoud Kamel (InterDigital):** This submission proposes resolutions for 19 CIDs (1026, 1873, 1171, 1172, 1595, 1423, 1425, 1426, 2056, 1591, 1592, 1593, 1594, 1784, 2270, 2020, 2170. 2171, 2269) in subclause 9.4.1.75 in P802.11bf D1.1.

CID 1026: The resolution is changed from accepted to revised.

CID 1873: Some clarifying discussion.

CID 1171: Some clarifying discussion.

CIDs 1172 and 1595: The proposed resolution for 1595 is changed from accepted to revised.

CID 1423: Based on feedback from the group it is decided to defer.

CIDs 1425, 1591, and 1784: 1425 is deferred. 1591 is deferred. 1784 is deferred.

CIDs1426 and 2056: Both CIDs are deferred.

CIDs 1592, 1593, and 1594: 1592 is changed from accept to reject. 1593 is changed from accept to reject. 1594: No discussion.

CID 2270: Deferred.

CID 2020: No discussion.

CID 2170: The resolution is changed from revised to rejected.

CID 2171: No discussion.

CID 2269: The resolution is changed from accepted to revised.

The SP is deferred.

**11-23/1164r0, “LB 272 CR for CIDs (1574, 1953)”, Mahmoud Kamel (InterDigital):**

This submission proposes resolutions for 2 CIDs (1574, 1953) in subclause 11.55.1.4 in P802.11bf D1.0:

CID 1574: The resolution is changed to reject.

CID 1953: The resolution is changed to reject.

Run out of time

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 12:33 pm.

### Friday, July 7, 2023, 1:30-3:30 pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-03-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 1:30pm (18 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. The chair goes through the agenda (slide 17). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
4. -
5. Presentation of submissions:

**11-23/1170r0, “LB272 CR for SBP 2209”, Narengerile (Huawei):** This document proposes the comment resolution for CID 2209.

CID 2209: Based on feedback from the group the proposed resolution is slightly modified. It is agreed that we should focus on enabling the feature and optimizing the efficiency is something that can wait until a potential future release of the standard.

The SP is deferred.

**11-23/0938r1, “LB272 Comment resolution for SBP procedure CID 1625”, Zhuqing Tang (Huawei):** This submission resolves the comments of the CID 1625.

CID 1625: Some clarifying discussion and as a result “shall” is changed to “should” in the proposed resolution.

It is emphasized by the group to check with Cheng before running the motion since he is not present.

**Straw Poll:** Do you support resolution to the following CID and incorporate the text changes into the latest TGbf draft: 1625 in 11-23/0938r2?

**Result:** Unanimously supported.

**11-23/1169r1, “LB272 Comment resolution for CIDs related to Availability Window”, Zhuqing Tang (Huawei):** This submission resolves the comments of the CID 1810 and 2107.

CID 2107: Rather lengthy discussion without reaching a conclusion. One issue is that Dibakar is not available.

CID 1810: Not discussed.

Decided to discuss further in the Plenary meeting.

**11-23/1091r0, “LB272-CID-1376 resolution”, Assaf Kasher (Self):** This document proposes resolution to LB272 CID 1376

CID 1376: Some clarifying discussion. Also, as a result if the feedback from the group, a note is added.

**Straw Poll:** Do you agree to the resolution of CIDs in r1 of this contribution: The list of CIDs is: 1376?

**Result:** Unanimously supported.

**11-23/0702r2, “LB272** **comments DMG comments resolution part 1”, Rui Du (Huawei):** This submission contains the proposed comment resolutions for the CIDs 2068, 2122, 2077 and 2081.

All CIDs except 2077 have already been motioned.

CID 2077: Some clarifying discussions and some typos corrected.

**Straw Poll:** Do you support resolutions to the following CIDs and incorporate the text changes into the latest TGbf draft: 2077 in 11-23/0702r3?

**Result:** Unanimously supported.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 3:33 pm.

### Friday, July 7, 2023, 4:00-6:00 pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-03-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Any other business?
9. Adjourn
10. The chair, Tony Xiao Han, calls the meeting to order at 4:00pm (20 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
11. The chair goes through the agenda (slide 17). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
4. -
5. Presentation of submissions:

**11-23/1170r1, “LB272 CR for SBP 2209”, Narengerile (Huawei):** This document proposes the comment resolution for CID 2209.

Narengerile has updated the contribution and goes through the made changes.

CID 2209: Some clarifying discussion.

**Straw Poll:** Do you agree to include the resolutions provided for CID 2209 in r2 in the latest 11bf Draft?

**Result:** Unanimously supported.

**11-23/1150r1, “Resolutions to CID”, Cheng Chen (Intel):** This submission proposes resolutions to the following comments submitted in LB272 under Instance topic. The CIDs are referring to D1.0. The text used as reference is D1.1.

CID 2283: Some clarifying discussions.

**Straw Poll:** Do you support the proposed resolutions to the CIDs and incorporate the text changes into the latest TGbf draft?

**Result:** Unanimously supported.

**11-23/0833r0, “LB 272 CR for CID on Instance – Part 2”, Mahmoud Kamel (InterDigital):** This submission proposes resolutions for 9 CIDs (1012, 1136, 2000, 2030, 2031, 2032, 1728, 1732, 2287) in subclause 11.55.1.5 in P802.11bf D1.0:

CIDs 2000, 1136, 1012, 2030, 2031, and 2032: Based on feedback from the group the proposed resolutions, including some motivations, are slightly updated.

CIDs 1728 and 1732: Some clarifying discussion. Based on feedback from the group the proposed resolutions are slightly updated.

CID 2287: Agreed that more discussion is needed.

**11-23/0882r1, “LB272 CR on capability of sensing measurement reporting”, Dong Wei (NXP):** This document aims to resolve the following ten LB272 CIDs related to the capability of sensing measurement reporting: 1056, 1455, 1929, 1930, 1986, 2015, 2052, 2146, 2149, 2155, 2156, and 2176.

R0: Initial version

R1: Add CIDs 1455 and 2156

CID 1455: Rather length discussion about the need for this bit.

Run out of time.

The chair announces that we will start the am1 session tomorrow at 9:00am.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 6:00 pm.

**List of Attendees:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |  |
| TGbf | 7/7 | Wilhelmsson, Leif | Ericsson AB |  |
| TGbf | 7/7 | Kim, Sang Gook | LG ELECTRONICS |  |
| TGbf | 7/7 | Beg, Chris | Cognitive Systems Corp. |  |
| TGbf | 7/7 | Raissinia, Alireza | Qualcomm Incorporated |  |
| TGbf | 7/7 | Schweizer, Benedikt | Apple Inc. |  |
| TGbf | 7/7 | SUH, JUNG HOON | Huawei Technologies Co., Ltd |  |
| TGbf | 7/7 | Tang, Zhuqing | Huawei Technologies Co., Ltd |  |
| TGbf | 7/7 | Eitan, Alecsander | Qualcomm Technologies, Inc. |  |
| TGbf | 7/7 | McCann, Stephen | Huawei Technologies Co., Ltd |  |
| TGbf | 7/7 | Wei, Dong | NXP Semiconductors |  |
| TGbf | 7/7 | feng, Shuling | MediaTek Inc. |  |
| TGbf | 7/7 | narengerile, narengerile | Huawei Technologies Co., Ltd |  |
| TGbf | 7/7 | Hsu, Ostrovsky | Xiaomi Communications Co., Ltd. | |
| TGbf | 7/7 | Xin, Yan | Huawei Technologies Co., Ltd |  |

### Saturday, July 8, 2023, 8:00-10:00 am

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-04-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Privacy discussion for 802.11bf
9. Any other business?
10. Adjourn
11. The chair, Tony Xiao Han, calls the meeting to order at 9:02am (17 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
12. 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). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
4. -
5. -
6. Presentation of submissions:

**11-23/1172r1, “LB272 comments DMG comment 2063 resolution”, Rui Du (Huawei):** This submission contains the proposed comment resolution for the CID 2063.

CID 2063: Based on feedback from the group some editorial updates are made.

**Straw Poll:** Do you support resolution to the following CID and incorporate the text changes into the latest TGbf draft: 2063 in 11-23/1172r2?

**Result:** Unanimously supported.

**11-23/1177r2, “LB272 comments DMG comment 2103 resolution”, Rui Du (Huawei):** This submission contains the proposed comment resolution for the CID 2103.

CID 2103: C: This appears to be a new feature and I believe it needs more work before adding it to the specification. In addition, I would like to better understand the need for it.

Q: Is this the first time this contribution is presented?

A: Yes.

It is agreed to have more offline discussions.

**11-23/1156r0, “LB272 CID 1950”, Chris Beg (Cognitive Systems):** This submission addresses CID 1950

CID 1950: C: I believe it is quite hard to actually obtain the SNR as you describe in practice.

C: I believe it is relevant for the application to have a SNR estimate when different measurements are to be combined, and what we have today may simply not be good enough.

C: I also believe this is quite useful, but hard to make people agree on the details.

C: I also believe it is useful, but that it is too much work to include it so I will probably vote NO.

**Straw Poll:** Do you support adding a new RXVECTOR SNR definition for Sensing (e.g., CSI\_ESTIMATE\_SNR), and adding new fields into the Sensing Measurement Report field?

**Result:** Y/N/A: 2/7/6

Based on the SP result, Chris will withdraw the comment.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 9:58 am.

### Saturday, July 8, 2023, 10:30-12:30 am

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-05-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Privacy discussion for 802.11bf
9. Any other business?
10. Adjourn
11. The chair, Tony Xiao Han, calls the meeting to order at 10:30am (19 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
12. The chair goes through the agenda (slide 19). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
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5. -
6. Presentation of submissions:

**11-23/1042r0, “LB272 Reporting CID Resolutions Part 3”, Chris Beg (Cognitive Systems):** This submission addresses the following 18 LB272 CIDs: 2019 2272 2218 1451 1452 1658 1659 1883 1940 1941 1782 1797 1003 1489 1490 1491 2045 2046.

CIDs 2019 and 2272: Some clarifying discussion and as a result the text in the note is slightly updated.

CID 2218: Some clarifying discussion and as a result the text in one of the tables is slightly updated.

CIDs 1451, 1452: Both 1451 and 1452 are changed from revised to rejected.

CIDs 1658, 1659, and 1883: Some clarifying discussion.

CIDs 1940 and 1941: C: I see the point, but the way I see it this is a PHY change so I don’t think we can do it at this point in time.

C: I agree, in practice I see that there is an implementation limitation to actually do this.

Based on feedback from the group, the proposed resolution for these is changed from revised to rejected and the text is updated correspondingly.

CID 1782: No discussion.

CID 1797: No discussion.

CIDs 1003 and 1489: Some clarifying discussion and as a result the proposed text is slightly updated.

CID 1490: Some clarifying discussion.

CID 1491: Some clarifying discussion.

CIDs 2045 and 2046: Some clarifying discussion and as a result the resolution is changed from revised to reject.

11-23/0976r0, “LB272 comments measurement setup comments resolution part 3”, Rui Du (Huawei): This submission contains the proposed comment resolutions for the CIDs 2101, 1102, 1037, 2104, 1649 and 2105.

CIDs 2101,1102, 1037, 2104, and 1649: C: I believe the resolutions add more complexity than needed. Basically, I don’t see the need for this.

It is agreed to continue the discussion offline.

Run out of time.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 12:30 pm.

### Saturday, July 8, 2023, 1:30-3:30 pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-05-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Privacy discussion for 802.11bf
9. Any other business?
10. Adjourn
11. The chair, Tony Xiao Han, calls the meeting to order at 1:31pm (18 persons are on the call after 15 minutes of the meeting, 12 persons are in the room).
12. The chair goes through the agenda (slide 19). The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
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3. -
4. -
5. -
6. Presentation of submissions:

11-23/0976r0, “LB272 comments measurement setup comments resolution part 3”, Rui Du (Huawei): This submission contains the proposed comment resolutions for the CIDs 2101, 1102, 1037, 2104, 1649 and 2105.

This is a continuation from the AM2 session.

CID 1649: Based on feedback from the group the proposed resolution is slightly updated.

CID 2105: No discussion.

The document will be revised based on the feedback obtained from the group.

**11-23/1108r0, “LB272 CR for SBP CID – Part 2”, Naren (Huawei):**

This document proposes the comment resolution for CIDs 1626, 2225, 1700, 1754, 1753, 1249, 1250, and 1246. The reference draft version is D1.2.

CID 1626: No discussion.

CID 2225: No discussion.

CIDs 1700 and 1754: No discussion.

CIDs 1753, 1249, and 1250: No discussion.

CID 1246: Some clarifying discussion.

**Straw Poll**: Do you agree to include the resolutions provided for CIDs 1626, 2225, 1700, 1754, 1753, 1249, 1250, and 1246 in the latest 11bf Draft?

**Result:** Unanimously supported.

**11-23/1197r0, “LB272 CR for CID 1689”, Dong Wei (NXP):** This document aims to resolve LB272 comment CID 1689.

CID 1689: Q: We already have an identical figure in the draft, can we just refer to this instead of including another one?

Based on feedback from the group, Dong will update the document offline.

**11-23/1171r0, “LB272 bug fix for SBP procedure”, Naren (Huawei):** This document proposes a technical change to 11bf spec to fix a bug that is related to the SBP setup procedure.

C: I don’t believe that the value of this is so high that it justifies the extra complexity.

A: This is a flexibility that the AP has if it is not involved in SBP so I think it is natural that if a STA requesting SBP it will have the same flexibility. With respect to complexity, this is mainly for spec. writing, in the actual implementation I believe this is not a big addition.

Based on feedback from the group, the text is slightly updated.

Rather lengthy discussion concerning whether this feature is needed and whether the added complexity will make SBP something less likely to be implemented.

**Straw Poll:** Do you support the new feature added to the SBP setup proposed in 1171r0?

**Result:** Y/N/A:5/3/5

**11-23/1178r0, “Bug fix: SBP response”, Rui Du (Huawei):** This submission contains the proposed modifications for SBP response when its Status Code equals to SUCCESS.

Based on feedback from the group the proposed text is shortened considerably.

It is agreed that Rui will do some more editing offline before running the SP.

**11-23/1185r0, “Bug fix contribution - DMG sensing procedure expiry timer”, Zhuqing Tang (Huawei):** This submission provides a contribution of a bug fix problem.

Based on feedback from the group, it appears the identified bug is actually a misunderstanding.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is recessed without objection at 3:30 pm.

### Saturday, July 8, 2023, 4:00-6:00 pm

**Meeting Agenda:**

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

<https://mentor.ieee.org/802.11/dcn/23/11-23-1110-05-00bf-tgbf-meeting-agenda-2023-07-adhoc.pptx>

1. Call the meeting to order
2. Patent policy and logistics
3. TGbf Timeline
4. Call for contribution
5. Teleconference Times
6. D1.0 CR Status
7. Presentation of submissions
8. Privacy discussion for 802.11bf
9. Any other business?
10. Adjourn
11. The chair, Tony Xiao Han, calls the meeting to order at 4:01pm (20 persons are on the call after 15 minutes of the meeting, 11 persons are in the room).
12. The chair goes through the agenda (slide 19). The chair explains that the idea is to discuss privacy, the CID status, and CSI feedback discussion. The chair asks if there are any questions or comments on the agenda. No response from the group.

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

1. -
2. -
3. -
4. Claudio gives an update of the CR status and goes through the remaining CIDs. There are 157 open CIDs.
5. Privacy discussion:

**11-23/0782r1, “Discussions on Wireless Sensing Privacy”, Li Sun (Huawei):** This presentation is primary concerned with wireless sensing privacy issues. It also discusses what has been done within other SDOs with respect to privacy.

Commented by the group that issue 1 is already dealt with, not can be easily dealt with as it says in the document.

Issue 2 is something that is present in Wi-Fi today and not unique for 11bf.

Pointed out by the group that 11bf may be marginally worse in that since 11bf requires the same antenna configuration to be used and this may make sensing simpler.

C: Not only NDP that can be used, other packets may be used as well. There will be legacy fields there because of backward compatibility and these can be used for channel estimation.

With respect to issue 3, there is disagreement since similar behavior would e.g. be obtained using TWT. Also, disagreement that beamforming is used in typical applications. This is true only for MIMO, but one antenna non-AP STAs are still a large part of the market.

The overall feedback is that one must be more careful before publishing this kind of document as it may make WLAN sensing look very bad and especially if the concerns are not valid.

1. Presentation of submissions:

**11-23/0882r1, “LB272 CR on capability of sensing measurement reporting”, Dong Wei (NXP):** This document aims to resolve the following ten LB272 CIDs related to the capability of sensing measurement reporting: 1056, 1455, 1929, 1930, 1986, 2015, 2052, 2146, 2149, 2155, 2156, and 2176.

This is a continuation from yesterday. The focus is on CID 1455.

CID 1455: C: I will vote NO. We can always add this later.

C: I support Dong. I think it is good to add this early on it gives a path for progressing 11bf.

C: The reason why we want this is that it is possible to make a software update on current devices, but we can’t make a hardware update.

C: Yes, but does the market need this?

C: Our customers want HE and EHT to support 11bf.

Decided to continue discussion and have a SP when more people are present. There is a request to announce in advance if there is an intention to run a SP for this CID.

**11-23/1203r0, “LB272 comments SBP comments resolution Part 2”, Rui Du (Huawei):**

Rui wants to hear the groups opinion on the two CIDs 1044 and 1052.

1044, 1052: The group suggests rejecting both these CIDs.

1. The chair asks if there is AoB. No response from the group.
2. The meeting is adjourned without objection at 6:00 pm.

**List of Attendees:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TGbf | 7/8 | Wilhelmsson, Leif | Ericsson AB |  |
| TGbf | 7/8 | McCann, Stephen | Huawei Technologies Co., Ltd |  |
| TGbf | 7/8 | narengerile, narengerile | Huawei Technologies Co., Ltd |  |
| TGbf | 7/8 | Beg, Chris | Cognitive Systems Corp. |  |
| TGbf | 7/8 | Raissinia, Alireza | Qualcomm Incorporated |  |
| TGbf | 7/8 | Wei, Dong | NXP Semiconductors |  |
| TGbf | 7/8 | Kamel, Mahmoud | InterDigital, Inc. |  |
| TGbf | 7/8 | feng, Shuling | MediaTek Inc. |  |
| TGbf | 7/8 | Schweizer, Benedikt | Apple Inc. |  |