IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes for TGbe MAC Ad-Hoc teleconferences in September and November 2023 | | | | |
| Date: 2023-05-31 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
| Jeongki Kim | Ofinno |  |  |  |
|  |  |  |  |  |

Abstract

This document contains the meeting minutes for the TGbe MAC ad hoc teleconferences held in September 2023 and November 2023.

Revisions:

* Rev0:
  + Added the minutes from the telephone conferences held on September 25,
* Rev1:
  + Added the minutes from the telephone conferences held on September 27,
* Rev2:
  + Added the minutes from the telephone conferences held on October 09,
* Rev3:
  + Added the minutes from the telephone conferences held on October 11,

**Monday 25 September 2023, 07:00pm – 09:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:01pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))

**Recorded attendance through Imat and e-mail:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |

1. The Chair reminds that the agenda can be found in 11-23/1656r1. The Chair asks for the comments about the agenda. No comments are received. The proposed agenda is approved.

* Technical Submissions:
  1. [1658r1](https://mentor.ieee.org/802.11/dcn/23/11-23-1658-00-00be-lb275-cr-emlsr-part1.docx) lb275-cr-emlsr-part1 Minyoung Park 40 CIDs

Discussion:

C: CID 19586. The specific power manamgent mode change have no significent gain. Do not agree with the resolution.

A: the behavior of automatically being in active mode is in the draft for a long time. Don’t want to change the behavior in the current draft.

C: 19575. Please defer the CID.

A: ok.

C: 19838. Don’t understand the resolution. The text should mention that it is transmitted by the AP.

A: it is clear through subclause 9.4.2.312.2. Will defer it.

C: 19595. Without the requriement of ICF, the performance can be improved.

A: what you proposed is a new method. Don’t want to introduce the new method at this stage.

C: 19595. it is a corner case that the OBSS uses the channel.

A: Why is it a corner case? The legacy AP/STA doesn’t understand R-TWT.

C: ok.

C: 19577. How about the other EMLSR link that doesn’t receive the intial control frame?

A: the spec doesn’t anything. The other link can save power without listening the medium.

C: 19839. Please defer this. We discuss this multiple times. Have some concern.

A: ok.

C: 19658. The satement ”this is invalid comment” is not correct. This statement should be removed since the propsoed change is clear. This needs more time for the discussion.

A: will defer it.

C: similar comment.

C: 20087. The resolution is not clear. ”How to do the link switch” is not clear. Please defer the CID.

A: it is upto non-AP MLD to decide the link switch. Will defer it per the request.

C: 19659. There are some offline discusison currently.

A: will defer it.

C: 19401. What you proposed is applied to both modes. The behavior may not need to be applied to mode 1. Another observation is that non-AP MLD can release its allocated time. The exception for such time release should be mentioned.

A: will defer it.

C: 19835. Do we have two MIB variables for both AP MLD and non-AP MLD?

A: yes.

C: we need to have text such that the actived to be true if implemented to be true.

A: not sure about it. Can defer it.

C: please defer 19836 and 19837 for MIB variables.

A: ok.

C: check the draft. We only mention MIB variable implemented in annex. Need to fix it during the offline discussion.

C: Please defer 19833 since it is related to the MIB variables.

A: ok.

C: 19333. For EMLMR figure, we show Nss switch. Maybe we can add the similar description in the figure.

A: we can’t get the consensus in the previous discussion.

SP: Do you support to accept the resolution in 11-23/1658r1 for the following CIDs?

19292 19028 ~~19970 19971~~ 19973 ~~19974 19575~~ 19834 ~~19833~~ 19029

~~19586 19838~~ 19032 19595 19293 19294 19030 19577 19031 19208

~~19839~~ 19207 19033 19001 19724 ~~19658 20087 19659 19402 19580~~

~~19401 19835~~ 19899 ~~19836 19837~~ 19510 19333

No Objection

* 1. [1660r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1660-00-00be-lb275-cr-mlti.docx) lb275-cr-mlti Minyoung Park 21 CIDs

Discussion:

C: 19755. The comment asks a valid question. This is the typical case for power save.

A: will defer it.

C: 19852. Some offline discussion is done. Please defer it.

A: ok.

C: 19875. Please defer it.

A: ok.

C: 19206. The future generation may have more and more links. The AP MLD may not allocate the smallest link ID with link ID 0. We need to have a bound by adding the information about smallest link ID.

A: If the link ID starts from 0, the issue will be gone.

C: the statement is not there. Please add the relqated statement.

A: can add it if nobody object. Will defer the CID.

SP: Do you support to accept the resolution in 11-23/1660r0 for the following CIDs?

19669 ~~19755 19852~~ 19867 19784 19717 19718 19719 ~~19785 19786~~

~~19206 19212~~ 19720 ~~19721 19787 19788 20122~~ 19722 19723

No Objection

The call was adjourned at 9:00pm.

**Wendesday 27 September 2023, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:01am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))

**Recorded attendance through Imat and e-mail:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |

1. The Chair reminds that the agenda can be found in 11-23/1656r2. The Chair asks for the comments about the agenda. Per the request, 1553 for SP and 1607 for SP are added, 1660 is deferred. The updated agenda is approved.

* Technical Submissions:
  1. 1607r1 SP

Discussion:

None

SP: Do you support to accept the resolution in 11-23/1607r1 for the following CID?

19749

No Objection

* 1. [1541r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1541-00-00be-lb275-cr-35-3-18.docx) CR 35.3.18 Liwen Chu 11 CIDs

Discussion:

C: editorial changes on NSS. Should be changed to “NSS”

C: 19979, the comment is not saying Multi-link P2P. The comment is saying, even for single link P2P, there may be some issue with the eMLMR.

C: confused about the relationship of the initial control frame and the enabled/disabled links

A: the enabled/disable is only by TID-to-Link mapping according to the TGbe draft, and the initial control frame will only be transmitted on the enabled links.

C: the spec does not say whether the non-AP MLD can have transmissions on two links.

SP: Do you support to accept the resolution in 11-23/1541r1 for the following CIDs?

19587, 19588, 19295, 19840, 19842, ~~19979, 19848, 19728, 19847, 19846,~~ 19843

No Objection

* 1. [1655r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1655-00-00be-cr-for-cid-19004-and-19169.docx) CR for CID 19004 and 19169 Po-Kai Huang 2 CIDs

Discussion:

C: 19169. is this applied to MLD reconfiguration?

A: yes.

C: a note can be added in MLD reconfiguration subclause.

C: 19169. ”shall” should be used.

A: ok if there is no objection.

C: there may be some issue for legacy STA if ”shall” is used.

SP: Do you support to accept the resolution in 11-23/ for the following CIDs?

SP deferred

* 1. 1671r0 SRS control related CRs George Cherian 4 CIDs

Discussion:

C:19576. AP MLD and NSTR AP MLD should be separated to two sentences.

A: ok.

C: 19576. this feature is originally defined for AP MLD. Please defer 19576.

A: ok.

C: in NSTR AP MLD subclause, some text about SRS is included. Need to do offline check.

A: I can remove NSTR related text being added.

SP: Do you support to accept the resolution in 11-23/1671r1 for the following CIDs?

19359, 19360, 19394, 19576

No Objection

* 1. [1478r7](https://mentor.ieee.org/802.11/dcn/23/11-23-1478-05-00be-channel-usage.docx) Channel Usage Brian Hart [Q-SP-1]

Discussion:

C: reassociation response is not trusted frame.

A: once the 4-way handshake is done, you can look back.

C: it is not true.

A: ok.

C: 35.3.3.4 Channel Usage element should be mentioned in Per-STA profile.

A: ok.

SP: Do you support to accept the resolution in 11-23/1478r8 for the following CIDs?

19478

No Objection

* 1. 1553r4 SP

Discussion:

None

SP: Do you support to accept the resolution in 11-23/1553r4 for the following CIDs?

19027, 20114, 20115, 19982, 19983, 19984, 19976, 19977

SP deferred per the request

**Monday 09 October 2023, 07:00pm – 09:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 07:00pm EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))

**Recorded attendance through Imat and e-mail:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |

1. The Chair reminds that the agenda can be found in 11-23/1656r4. The Chair asks for the comments about the agenda. Per the request, 1660 is deferred. The updated agenda is approved.

* Technical Submissions:
  1. [1658r3](https://mentor.ieee.org/802.11/dcn/23/11-23-1658-02-00be-lb275-cr-emlsr-part1.docx) lb275-cr-emlsr-part1 Minyoung Park [5C SP]

Discussion:

C: 19833. Remove ”since ...” from the first sentence of CID discussion part.

A: ok.

C: what is the differnece between implemented and activated?

A: there is some inconsistence in the baseline. It depends on how our group use them.

SP: Do you support to accept the resolution in 11-23/1658r4 for the following CIDs?

19833, 19835, 19836, 19837, 19838

No Objection

* 1. [1652r1](https://mentor.ieee.org/802.11/dcn/23/11-23-1652-01-00be-tgbe-lb275-security-comment-resolutions-part-1.docx) Security Comment Resolutions Part 1 Michael Montemurro [27C]

Contribution is deferred

* 1. [1685r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1685-00-00be-proposed-resolution-for-miscellaneous-lb275-comments-part-2.docx) Prop. Res. for misc. LB275 comments - Part 2 Edward Au [19C]

Discussion:

None

SP: Do you support to accept the resolution in 11-23/1685r1 for the following CIDs?

19501, 19095, 19100, 19052, 19221, 19065, 19488, 19504, 19160, 19218,

19220, 19503, 19076, 19048, 19740, 19671, 19397, 19098, 19448

No Objection

* 1. [1542r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1542-00-00be-lb275-cr-for-ml-reconfiguration-part-4.docx) CR for ML Reconfiguration part 4 Binita Gupta [25C]

Discussion:

C: this inheritance is different from the baseline rule since the first per-STA profile is used as the reference. How does teh recipeint know the inheritance?

A: the recipient will assume that the inheriance will be applied.

C: there may be some inter-op issue for the current product without implementing such feature.

A: will defer it.

C: 19416. Don’t think the change is enough. Confused by OCI being added.

A: that is another CID.

C: the issue is related.

A: will defer it.

C: 19418. Group Key Data is strange. We should use the element being defined in the baseline for FT.

A: it is used to carry the group keys of multiple links. We should not change the frame format at this stage.

C: FTE being not in the per-STA profile should be explicitly mentioned.

A: will think about it.

C: please 19418.

C: 19421. The behavior should follow link setup. The response frame should carry the link being rejected so that the non-AP MLD knows the reason why a link is rejected. If the response only carries the accepted link, .the status in per-STA profile is not needed.

A: I think the current text is what we agreed. Can defer the CID.

C: 19768. When a link is added, the number of simultaneous links will be increased by 1.

A: this part is non-AP MLD’s adding links. The number of simultaneous links being increased by 1 is about AP MLD.

C: it is better to add a note.

A: ok.

C: please defer 19939.

A: ok.

C: 19940. Is this change needed? The proposed change is obious.

A: will reject the CID.

C: 20028. Is ”shall” reasonable since this is about link recommendation?

A: will do offline discussion.

Unifinished document

The teleconference is adjourned at 09:00pm

**Wendesday 11 October 2023, 10:00am – 12:00pm ET (TGbe MAC ad hoc conference call)**

Chairman: Jeongki Kim (Ofinno)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, Ofinno) calls the meeting to order at 10:00am EDT. The Chair introduces himself and the Secretary, Liwen (NXP)
2. The Chair goes through the 802 and 802.11 IPR policy and procedures and asks if there is anyone that is aware of any potentially essential patents.
   1. Nobody responds.
3. The Chair goes through the IEEE copyright policy.
4. The Chair recommends using IMAT for recording the attendance.
   * Please record your attendance during the conference call by using the IMAT system:
     1. 1) login to [imat](https://imat.ieee.org/attendance), 2) select “802.11 Telecons (<Month>)” entry, 3) select “C/LM/WG802.11 Attendance” entry, 4) click “TGbe <MAC/PHY/Joint> conference call that you are attending.
   * If you are unable to record the attendance via [IMAT](https://imat.ieee.org/attendance) then please send an e-mail to Liwen Chu ([liwen.chu@nxp.com](mailto:liwen.chu@nxp.com)) and Jeongki Kim ([jeongki.kim.ieee@gmail.com](mailto:jeongki.kim.ieee@gmail.com))

**Recorded attendance through Imat and e-mail:**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |

1. The Chair reminds that the agenda can be found in 11-23/1656r5. The Chair asks for the comments about the agenda. No comment is received. The proposed agenda is approved.

* Technical Submissions:
  1. [1542r2](https://mentor.ieee.org/802.11/dcn/23/11-23-1542-01-00be-lb275-cr-for-ml-reconfiguration-part-4.docx) CR for ML Reconfiguration part 4 Binita Gupta [25C CTDs]

Discussion:

C:CID 19415. the note is not clear, please follow the inheritance rules about association response.

A: will update the nomative text and note accordingly.

C: the updated note should be normative text.

A: we already have it.

C: the related rules are in different places. The later note is contradictory to the normative text in the early place.

C: we just need to use the inheritance of basic multi-link element.

A: If we go what you proposed. The frame needs to carry the elements.

C: please defer 19939.

A: ok.

C: 20028. Why do we need the restricted order for first delete and then add?

A: If ”add” is done first, it is not in line with what is indicated in the BTM.

C: Still don’t understand the reason for the restricted order.

A: will defer it per chair’s request.

C: 19936. The referece should be changed to link reconfiguration since the subclause name was already changed.

A: editor will fix it. Can adda note for editor.

C: please defer my comments and the similar comments of the other members.

SP: Do you support to accept the resolution in 11-23/1542r2 for the following CIDs?

19468 19768 19769 19936 19937 19938 19940 20027 20029 20030 20031 20034 20036 20037

The SP is deferred for several minutes for the checking per the request.

* 1. [1526r2](https://mentor.ieee.org/802.11/dcn/23/11-23-1526-02-00be-lb275-cr-for-cids-in-clause-9.docx) CR for CIDs in clause 9 Ming Gan [1C SP]

Discussion:

None

SP: Do you support to accept the resolution in 11-23/1526r2 for the following CID?

19832

No Objection

* 1. [1555r0](https://mentor.ieee.org/802.11/dcn/23/11-23-1555-00-00be-lb275-cr-for-cids-in-35-3-10.docx) CR for CIDs in 35.3.10 Ming Gan [1C SP]

Discussion:

None

SP: Do you support to accept the resolution in 11-23/150r0 for the following CID?

20057

No Objection

* 1. [1621r1](https://mentor.ieee.org/802.11/dcn/23/11-23-1621-00-00be-cr-for-cid-19593.docx) CR for CID 19593 Yingqiao Quan [1C]

Discussion:

C: I am not sure whether the text change can address your problem. It seems the change is not needed.

C: why is the baseline doesn’t need such change? The situation is the same.

C: for TDLS operation, th requirement is that the TDLS peers are associated with the same AP. In your figure, peer STA and STA3 (TDLS peers) are not associated with the same AP. What you are shown is not allowed by TDLS.

A: don’t agree with that. This is implementation choice. Don’t think it is a new TDLS link.

C: don’t have strong opinion. Why STA1, STA3 addresses are mentioned. The MLD address will be used instead of STA1 and STA3.

The chair asks the offline discussion.

SP: Do you support to accept the resolution in 11-23/1621r1 for the following CIDs?

* 1. [1542r3](https://mentor.ieee.org/802.11/dcn/23/11-23-1542-01-00be-lb275-cr-for-ml-reconfiguration-part-4.docx) CR for ML Reconfiguration part 4 Binita Gupta [SP only]

Discussion:

None

SP: Do you support to accept the resolution in 11-23/1542r3 for the following CIDs?

19468 19768 19769 19936 19937 19938 19940 20027 20029 20030 20031 20034 20036 20037

No Objection

The chair asks whether addional document can be discussed. Per the request 1553 is added.

* 1. [1553r5](https://mentor.ieee.org/802.11/dcn/23/11-23-1542-01-00be-lb275-cr-for-ml-reconfiguration-part-4.docx)

Discussion:

C: somebody mentioned that we have alternative solution. Why do we need such solution?

A: the point is that R-TWT is broadcast TWT. It is difficult to match the parameters. The maintenence of synchronized awake state after R-TWT parameter change is easy per the propsoed solution.

C: it seems this is the optimization.

A: right. Because of TXOP sharing, this becomes more critical.

C: why do we need this mechanism? It seems the individual TWT is enough.

A: the individual TWT makes things complicated.

C: not sure whether the updated R-TWT parameters are applicable to the P2P traffic.

A: you don’t need the negotiation with the AP for P2P.

SP: Do you support to accept the resolution in 11-23/1553r5 for the following CIDs?

19027, 20114, 20115, 19982, 19983, 19984, 19976, 19977

14Y, 32,N 10A

The meeting Chair asks whether there is any other business. The TG chair asks the members to submit the sontributions and review the email of him. The teleconference is adjourned at 11:50am