IEEE P802.11  
Wireless LANs

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| Minutes for TGbe MAC Jan 2021 | | | | |
| Date: 2021-01-11 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | NXP |  |  |  |
| Jeongki Kim | LG Electronics |  |  |  |
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Abstract

This document contains the meeting minutes for the TGbe MAC ad hoc teleconferences held in Sept 2020.

Revisions:

* Rev0:
  + Adding the minutes for the session on Jan 11, 2021.
  + Adding the minutes for the session on Jan 13, 2021.

**Monday, 11 Jan 2021, 19:00 –21:00 EDT (TGbe MAC interim session)**

Chairman: Jeongki Kim (LG)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, LG) calls the meeting to order at 19:05am 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@lge.com](mailto:jeongki.kim@lge.com))
5. The Chair asked whether there is comment about agenda. After the discussion, 73 for PDT was added to the agenda. The modified agenda was approved.

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

* Technical Submissions:
  1. [1009r8](https://mentor.ieee.org/802.11/dcn/20/11-20-1009-08-00be-multi-link-hidden-terminal-followup.pptx) Multi-link hidden terminal-follow-up Dibakar Das [1 SP]

Discussion for SP1:

C: last bullet should be changed to transmit the frame instead of initialize a TXOP.

A: ok.

C: should be changed to ”access the medium by suing EDCA”

A: ok.

C: during the delay does the STA needs to do the medium detection?

A: we are not touching it.

C: 1st subbullet, which option do we go?

A: support both options. Signaling mechanism will be defined.

C: wandering the TBD condition in the last bullet.

A: different proposals were proposed about transmitting RTS/CTS, lower ED threshold erc. The TBD is a place holder for them.

C: 2nd bullet, does it mean the STA can’t initiate the backoff?

A: the intention is that the STA can initiate the backoff. But the STA can’t do the transmission.

C: can a STA do the backoff durng the timer’s counting down?

A: yes.

C: I think we can’t do the backoff.

A: we mean do the backoff, but don’t transmit the frame.

C: change the 2 bullet to ”...perform CCA until the timer expires...”

A: ok.

**SP 1 (updated SP per discussion):**

Do you agree to add the following to 11be SFD R1:  if during a transmission of a STA (STA-1) of a non-STR non-AP MLD, another STA (STA-2) of the same MLD cannot detect its medium state when required (due to STA-1’s UL transmission interference), STA-2 shall start a MediumSyncDelay timer at the end of STA-1's transmission, unless the STA-2 ended a transmission at the same time:

* + - the MediumSyncDelay timer expires after a duration value that is either assigned by AP or a default value in spec or if at least either of the following events happens:
      * any received PPDU with a valid MPDU
      * a received PPDU whose corresponding RXVECTOR parameter TXOP\_DURATION is not UNSPECIFIED

whichever happens first.

* + - STA-2 shall perform CCA until the timer expires. Additional TBD exceptions may be considered.

Note: it is TBD whether STA-2 is required to start the MediumSyncDelay timer if the transmission of STA-1 is shorter than TBD duration ration

66Y, 5N, 34A

* 1. [1350r7](https://mentor.ieee.org/802.11/dcn/20/11-20-1350-06-00be-enhancements-for-qos-and-low-latency-in-802-11be-r1.pptx) Enhancements for QoS and low latency in 802.11be R1 Dibakar Das [3 SPs]

Discussion of SP1:

C: is the intention of ”either as is or with modificaiton” means TSPEC lite?

A: we mean the TSPEC with the additional modification.

C: you should calrify the usage of it, under which context.

A: major purpose is for low latency. But it is not limitted to low latency.

C: TSPEC includes too much parameters. Perfer to use simpler way to do it.

A: Other people will have SP about simplification TSPEC by removing some fields (make them reserved).

C: the first is in line. I don’t think we have traffic flow definition.

A: we do have traffic flow in the spec.

SP1

**Do you agree to add to the TGbe SFD R1:**

* An AP or non-AP MLD shall use the TSPEC IE (either “as is” or with modification) to define the characteristics and QoS expectations of a traffic flow.

53Y, 32N, 24A

* 1. [1957r1](https://mentor.ieee.org/802.11/dcn/20/11-20-1957-01-00be-proposed-spec-text-for-eht-mac-and-mlo-intros.docx) Proposed Spec Text for EHT MAC and MLO Intros Carol Ansley

Discussion:

No discussion

SP:

Do you support to incorporate the propsoed text in 11-20-1957r1 into the latest version of 11be draft?

**Approved with unanimos consent**

* 1. 0073r1 MLO: CSA, eCSA and quiet element operation Laurent

Discussion:

C: one issue: first AP should be another AP in last paragraph of P2.

A: good catch.

C: non-transmitted BSSID should be changed to nontransmitted BSSID.

A: ok.

C: 1st paragraph of general procedure, it should be mandatory behavior.

A: yes.

C: last two bullets can be cleaned up a little bit: changing another AP to another affiliated AP, change populate to set.

A: ok.

C: first character of management frame name should capitalized.

A: ok.

No SP running

* 1. [1044r2](https://mentor.ieee.org/802.11/dcn/20/11-20-1044-02-00be-mlo-tid-to-link-mapping-negotiation.pptx) MLO: TID-to-link mapping negotiation Abhishek Patil

Discussion:

C: How we address unfairness?

C: want to understand the concept. This may have the influence to SCS.

A: need to do offline discussion.

C: Do the SP apply to TDLS?

A: no.

C: any thought about complexity of it?

C: support the SP. Is Teardown indicaiton or negotition?

A: will decide it later.

C: Robust acton frame? Are these frames used after association?

A: Yes.

C: how is the mechanism used for eMLMR/eMLSR?

A: can do offline discussion.

C: negotiation should be initiated by AP.

A: personally I am fine with it. We can get the group view about it.

No SP running

* Chair asks if there is objection to rcess the meeting, and none being heard.

The meeting is recessed at 21:00 EDT.

**Wednesday, 13 Jan 2021, 09:00 –11:00 EDT (TGbe MAC interim session)**

Chairman: Jeongki Kim (LG)

Secretary: Liwen Chu (NXP)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Jeongki, LG) calls the meeting to order at 09:05am EDT. The Chair introduces himself and the Secretary, Liwen Chu (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@lge.com](mailto:jeongki.kim@lge.com))
5. The Chair asked whether there is comment about agenda in 11-20/1983r3. There was no comment. The agenda was approved.

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

* Technical Submissions:
  1. [442r4](https://mentor.ieee.org/802.11/dcn/20/11-20-0442-03-00be-mla-group-addressed-frames-delivery.pptx) MLA: Group addressed frames delivery Duncan Ho [2 SPs]

Discussion for ”Modified SP2”:

C: if the first bullet is deleted, it is not clear of the selected link in 2nd bullet.

A: will change 2nd bullet to make it clear.

C: it shouldn’t limit to DTIM.

A: after DTIM, the group ddressed frames will be delivered.

C: confused by the SP. A STA MLD may not select to receive group-addressed frame.

A: the SP try to add more information on top of passed motion.

C: there is no reason to specify the behavior of the receiver og group-addressed frames.

C: many questions. Understand SP is based on the passed motion. The SP adds restriction on STA MLD’s link switch. The whole method should be readdressed since different DTIM TBTTs will create issues. Another concern is the different sequence numbers being used in different links for group-addressed frames. The duplication can’t be detected in recepient non-AP MLDs.

No SP runing.

* 1. [**903r9**](https://mentor.ieee.org/802.11/dcn/20/11-20-0903-09-00be-multi-link-group-addressed-data-frame-delivery-follow-up.pptx) **Multi-link Group Addressed Data Frame Delivery Follow up Po-Kai Huang [2 SPs**]

The SP is deferred.

* 1. [**1722r4**](https://mentor.ieee.org/802.11/dcn/20/11-20-1722-04-00be-mac-pdt-nsep-tbds.docx) **MAC-PDT-NSEP-TBDs Subir Das [SP**]

Discussion:

No discussion.

SP:

Do you support to incorporate the proposed draft text in 11-20/1772r4 into the latest version of TGbe Draft?

Approved with unanimous consent.

* 1. [**0073r2**](https://mentor.ieee.org/802.11/dcn/21/11-21-0073-02-00be-pdt-mac-mlo-csa-ecsa-quiet-element.docx) **PDT-MAC-MLO-CSA eCSA quiet element Laurent Cariou [SP**]

Discussion:

C: 1st paragraph, the passed motion is for associated STA MLD.

A: received some comment that the rule is also applied to unassociated STA MLD. If you have strong objection, I can removed it.

C: For Quiet element, if an unassociated STA MLD receives it, does unassociated STA MLD respect it?

A: no.

C: change ”management frame” to ”Management frame”.

A: ok.

SP:

Do you support to incorporate the proposed draft text in 11-21/0073r3 into the latest version of TGbe Draft?

Approved with unanimous consent.

* 1. [**0077r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-0077-00-00be-mac-pdt-wideband-bw-signaling-tbds.docx) **MAC-PDT-WideBand BW Signalling TBDs Yunbo Li**

Discussion:

C: if B3 is used, need some indication for the special use of B3. We need to discuss the indicaiton first.

A: we only mention which bit to use. What you raised is different topic.

C: currently 320MHz is only defined in 6GHz band. Reserved bits can be used.

A: B3 usage doesn’t preclude the usage of Reserved bits.

C: agree with the previous commenter.

SP

* + - Do you support to incorporate the proposed draft text in 11-20/0077r0 into latest version of TGbe Draft?

38Y, 21N, 37A

* 1. [**0080r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-0080-00-00be-twt-for-mld.docx) **TWT for MLD Ming Gan**

Discussion:

C: the text seems to assume that TWT agreement is at MLD level. But TWT is at link level. Some text should be added to make it clear.

A: ok.

C: the text is not clear. The motion assume using one link to negotiation the TWT agreements for multiple links.

A: please clarify it.

C: you agree that TWT agreement is in lin level, right?

A: colud be in link level, or in MLD level.

No SP runing.

* 1. [**1044r2**](https://mentor.ieee.org/802.11/dcn/20/11-20-1044-02-00be-mlo-tid-to-link-mapping-negotiation.pptx) **MLO: TID-to-link mapping negotiation Abhishek Patil [Q+SP]**

Discussion:

C: It is good direction.

C: ”should” in 2nd bullet is too strong.

A: the reason for it is that AP MLD has more information.

C: but this is not good for STA MLD’s link disablement.

C: same concern.

A: non-AP MLD can teardown the mapping if it doesn’t want it.

C: clarificaiton question: the non-AP MLD can reject or teardown, am I right?

A: right.

C: the second bullet should be removed.

C: the SP is quite confusing. Does this SP allow both sides to do the request?

A: yes.

A: I can remove the second bullet if this can satisfy the no comments of 2nd bullet.

SP (updated poll per discussion):

* **Do you agree in R1:**
  + An MLD may initiate a TID-to-link mapping negotiation with an associated MLD that supports TID-to-link mapping by sending an individually addressed request frame
    - The proposed TID-to-link mapping is established if the responding MLD responds with a response frame indicating ACCEPT
    - A multi-link multi-radio (MLMR) non-AP MLD should accept AP MLD’s proposed TID-to-link mapping by responding with an individually addressed response frame indicating ACCEPT (This rule is TBD)
    - An MLD may suggest a TID-to-link mapping by transmitting an individually addressed frame indicating SUGGEST
    - An MLD may teardown a negotiated TID-to-link mapping by sending an individually addressed teardown frame

50Y, 22N, 30A

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* 1. [**1554r3**](https://mentor.ieee.org/802.11/dcn/20/11-20-1554-03-00be-ml-reconfiguration.pptx) **ML reconfiguration Payam Torab**

Discussion:

No time for discussion and SP.

The meeting was adjourned at 11:00 EDT.