IEEE P802.11
Wireless LANs

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| Minutes for TGbe MAC Ad-Hoc teleconferences in March 2022 Plenary |
| Date: 2022-03-09 |
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Abstract

This document contains the meeting minutes for the TGbe MAC ad hoc teleconferences in March 2022 Plenary.

Revisions:

* Rev0: Added the minute from the telephone conference held on March 07.
* Rev1: Added the minute from the telephone conference held on March 09.
* Rev2: Added the minute from the telephone conferences held on March 10.

**Monday 7 March 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary.
2. The Chair reminded the members that they need to register for the plenary in order to attend the call
3. 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.
4. The Chair goes through the IEEE copyright policy.
5. The Chair recommends using IMAT for recording the attendance.
	* Please record your attendance during the conference call by using the IMAT system:
		+ 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) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
6. The Chair asked whether there is comment about agenda in 11-22/0271r2. The agenda was approved.

 **Submissions**

1. 1681r14 SP

Discussion:

C: There are still TBDs. We should not have TBDs.

C: use CFSTAofsoftAP instead of CFEHTSTAofsoftAP

C: 9.8, what M for MLD AP? You can add it in 9.8.1 instead of 9.8.

C: FR5 9.6 is missing M.

C: 9.7.3 WNM is optional

**SP: Do you support to accept the resolution in 11-21/1681r15 for the following CIDs?**

* **4281, 5533, 6672, 6748, 7287**

No objection

1. [0239r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0239-01-00be-cc36-cr-for-remaining-cids-on-aar.docx) CC36 CR for Remaining CIDs on AAR Ming Gan [10C]

Discussion: None

**SP: Do you support to accept the resolution in 11-21/0239r1 for the following CIDs?**

* **4136 8153 4140 4141 4805 4142 7341 7554 7680 8065**

No objection

1. [1877r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1877-01-00be-cr-for-mld-individually-addressed-management-frame-delivery.docx) CR for MLD individually addressed MGMT frame delivery Po-Kai Huang [14C]

Discussion:

C: Name of Figure is wrong. Multi-link Link Information.

C: Link info can be included in TWT element.

C: Option 1, all link level managements should include link information? Perlink management or MLD level management? Not cross link shall include?

C: Option 2, last note, is that common for everything?

SP1: which way do you support to indicate the link where a link level management frame is applied

Option 1: link ID in frame payload

Option2: Address 3 in frame header

Abstain

58 option 1, 21 option 2, 21 abstain

1. 442r1

Discussion:

C: There is a huge harm of this for AAD or protection.

C: Last paragraph, bullet, what does it mean? Is this frame body? Is it element?

A: Link ID is ESPC or TWT setup frame? Option 1 provide only 1 ID.

C: Only TWT setup frame.

C: we haven’t discussed for group addressed frame. Suggesting taking out all group frames stuffs.

A: The first is general. But I can remove it. Are you ok with A3?

C: I’m fine with IG bit. But third bullet needs to be discussed.

A: Got it.

1. [0075r2](https://mentor.ieee.org/802.11/dcn/22/11-22-0075-01-00be-cr-for-cids-on-sta-id.docx) CR for CIDs on STA ID Yongho Seok [10C]

C: No Beam change and no STBC in EHT MU PPDU

C: We have other rules for inactive-subchannels in subclause 35.

A: Let me check them

C: 5344, the comment is not for EMLSR?

A: I added the new text regarding that. This is natural way.

C: Why adding single radio there?

The chair asked whether there are any other businesses before recessing the meeting. No response was received.

The teleconference was recessed at 21:00 ET

**Wednesday 9 March 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary.
2. The Chair reminded the members that they need to register for the plenary in order to attend the call
3. 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.
4. The Chair goes through the IEEE copyright policy.
5. The Chair recommends using IMAT for recording the attendance.
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	* 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) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
6. The Chair asked whether there is comment about agenda in 11-22/0271r4. A discussion on a rule of adding documents. Quarantined documents could be added on the fly if no objection. The agenda was approved after some modifications.

 **Submissions**

1. [0075r3](https://mentor.ieee.org/802.11/dcn/22/11-22-0075-03-00be-cr-for-cids-on-sta-id.docx) CR for CIDs on STA ID Yongho Seok [10C Q&A+SP]

Discussion:

C: Some discussion on 5344. Want separate SP. This CID is totally different topic from the remaining CIDs

A: I want one SP with all CIDs. Only one objection.

SP: Do you support to accept the resolution in 11-22/75r3 for the following CIDs?

* + 7860, 7938, 7088, 4166, 6339, 7939, 7089, 7889, 4165, 5110, 5343, 5344

47Y/ 23N/ 38A

1. 1210r7, Kaiying

Discussion:

C: Can we have 30us instead 20us for a margin? Too restricted.

A: Adjustment rule of a single AP will use the baseline rule.

C: Same. We already have 100ppm. Why do we need to have such a restriction?

C: what will be included for NSTR Mobile AP MLD? What will NSTR Mobile AP MLD do when the subfiled is set to 1?

A: Beacon Interval Present subfield and DTIM Info Present subfield will be set to 1.

C: How about the regular AP MLD if the NSTR mobile AP MLD has the same TSF timer?

A: This is not for regular AP MLD.

C: Still want to have 30us.

A: Ok.

SP: Do you support to accept the resolution in 11-21/1210r8 for the following CIDs?

* 6177, 7826, 4078, 4079, 5065, 5066, 5107, 5701, 5702, 5703, 4247, 6965, 7622, 6971, 6972, 6967

61Y /26N /20A

1. [0184r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0184-00-00be-cr-for-group-addressed-bus-by-tim.docx) Group addressed BUs by TIM Ming Gan [14C]

Discussion:

C: If there are 16 virtual BSSs, then do we have 32 bits?

A: Is it common scenario? 2 or 4 can be common.

C: Pls separate the element.

C: N is 4, N is fixed value or could be changed.

A: Fixed number is preferable. But, if anyone want to change, I’m ok with it.

SP: Do you support to accept the resolution in 11-22/0184r1 for the following CIDs?

* 4279 6306 6307 8043 4074 4075 5943 5992 6609 6610 6611 6612 6635 7885

39Y /35N /27A

1. [0214r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0214-01-00be-cc36-cr-emlsr.docx) CR EMLSR Minyoung Park [21C]

C: One or more spatial streams is reduantant, you can remove it.

A: I’m fine.

C: I want to have more time to review this carefully.

A: which parts?

C: Definition part and third part.

C: What is the multiple receive chains? Does the spec have such a text? The spec does not restrict anything. Single receive chain is possible?

A: What is the benefit?

C: Do we have such a text like multiple receive chains?

C: In the subclause, the non-HT PPDU and OFDMA PPDU are mentioned. But you only mention the non-HT PPDU here.

A: Other CID already resolved it. It was accepted.

C: 4422 is covered at one of notes in EMLMR section. Looks this is same.

A: This is normative texts.

C: MU-RTS can be used for MU for this procedure? How can the AP know which STA responds?

A: Same as the normal procedure. Anyway, AP can receive the Ack to data. It’s same.

C: I think BSRP is better than MU-RTS for MU.

A: That is AP’s implementation choice.

C: Why not mentioning multiple users at MU-RTS figure like BSRP figure? Some people can misunderstand that MU-RTS can only be used for single user.

A: There is no such restriction in the spec.

C: on that link is weired. Clarify.

A: I can change to on the link on which the initial Control frame was received.

SP: Do you support to accept the resolution in 11-22/0214r2 for the following CIDs?

* 4697, 6776,7336,5933, 4241, 6960,7831,7832,7334,6325, 4698,6963,7063, 7337, 8357,44Y /12N /29A

The chair asked whether there is any objection to extended the meeting. No response.

The chair asked whether there are any other businesses before recessing the meeting. No response was received.

The teleconference was recessed at 21:04 ET

**Thursday, March 10, 2022, 09:00 – 11:00am ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 09:02 ET. The Chair introduces himself and the Secretary.
2. The Chair reminded the members that they need to register for the plenary in order to attend the call
3. 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.
4. The Chair goes through the IEEE copyright policy.
5. The Chair recommends using IMAT for recording the attendance.
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	* 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) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
6. The Chair asked whether there is comment about agenda in 11-22/0271r5. A discussion on a rule of adding documents. Quarantined documents could be added on the fly if no objection. The agenda was approved after some modifications.

 **Submissions**

1. 1877r4, Po-kai

SP 1: Do you support to accept the resolution in 11-21/1877r4 for the following CID?

* 6032

36Y, 27N, 35A

SP2: Do you support to accept the resolution in 11-21/1877r5 for the following CIDs?

* 6244, 4038, 4251, 6618, 4399, 5220, 5763, 6613, 6614, 6615, 6616, 6252, 4072, 4400,

41Y, 32N, 28A

1. [1913r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1913-05-00be-cc36-cr-consideration-on-edca-operation-for-restricted-twt.pptx) CR-Cons. on EDCA Op. for Restricted TWT Liuming Lu [5C SP]

Discussion:

C: Do you think that non-trigger-enabled r-TWT is a good direction? Trigger-enabled r-TWT has MU benefit.

SP1: Do you support to have r-TWT prioritized  EDCA Parameter Set for a r-TWT scheduled STA during the r-TWT SP of which it is a member?

33Y, 51N, 26A

SP2: Do you support to have r-TWT deprioritized  EDCA Parameter Set for a r-TWT scheduled STA outside the r-TWT SP of which it is a member?

23Y, 49N, 30A

1. [1317r6](https://mentor.ieee.org/802.11/dcn/21/11-21-1317-04-00be-cc36-cr-for-cids-related-to-35-11-3.docx) CR-for-cids-related-to-35-11-3 Yonggang Fang [20C SP]

SP 1: Do you support to accept the resolution in 11-21/1317r6 for the following CIDs?

4176, 4449, 4450, 5627, 5870, 5871, 7547, 4177, 4178, 4179, 4338, 5628, 6516, 6747, 7863, 5629, 5621, 5626, , 5624, 5619

No objection

1. [1224r12](https://mentor.ieee.org/802.11/dcn/21/11-21-1224-11-00be-cc-36-cr-for-restricted-twt-setup.docx) CR for Restricted TWT Setup Muhammad K. Haider [4C SP]

Discussion:

C: This is mandatory? If AP supports r-TWT, AP supports this.

A: This is optional.

SP 1: Do you support to accept the resolution in 11-21/1244r12 for the following CIDs?

4778, 6408, 6409, 6423

37Y/36N/32A

1. [1436r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1436-00-00be-resolution-for-cids-related-to-tdls-operation-with-mlo-part-2.docx) Res. for CIDs related to TDLS operation with MLO (p2) Mike Montemurro [2C SP]

SP 1: Do you support to accept the resolution in 11-21/1436r2 for the following CIDs?

4031, 8296

No objection

1. [1147r7](https://mentor.ieee.org/802.11/dcn/21/11-21-1147-06-00be-cc36-cr-35-6-restricted-twt-announcement.docx) CR-35.6 Restricted TWT Announcement Chunyu Hu [10C SP]

Discussion:

C: neighboring BSS stuff does not cover all things.

C: In the figure, are you removing the subfield of restricted TWT schedule Full?

C: Does it mean, last part, that AP announces only active r-TWT SPs?

A: It’s up to AP. It follows the baseline.

C: Could you defer the SP for more review?

C: Is there any for inactive in baseline? If inactive, may include or don’t include?

1. [1699r3](https://mentor.ieee.org/802.11/dcn/21/11-21-1699-03-00be-cc36-cr-for-r-twt-rbo-before-service-period.docx) CR for r-TWT RBO before service period Abdel Karim Ajami [3C SP]

Discussion:

C: You can change QSRC instead of short restry count.

C: Quiet element is optional in r-TWT. I think 5949 is valid.

A: It could be addressed in other contribution.

A: If the transmission time is too short, the STA will defer the transmission.

SP 1: Do you support to accept the resolution in 11-21/1699r3 for the following CIDs?

6416, 6968, 5949

56Y, 26N, 28A

The chair asked whether there are any other businesses before recessing the meeting. No response was received.

The teleconference was recessed at 11:00 ET

**Thursday 10 March 2022, 19:00 – 21:00 ET (TGbe MAC ad hoc conference call)**

Chairman: Liwen Chu (NXP)

Secretary: Jeongki Kim (Ofinno)

This meeting took place using a webex session.

**Introduction**

1. The Chair (Liwen, NXP) calls the meeting to order at 19:02 ET. The Chair introduces himself and the Secretary.
2. The Chair reminded the members that they need to register for the plenary in order to attend the call
3. 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.
4. The Chair goes through the IEEE copyright policy.
5. The Chair recommends using IMAT for recording the attendance.
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	* 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) and Jeongki Kim (jeongki.kim.ieee@gmail.com)
6. The Chair asked whether there is comment about agenda in 11-22/0271r8. A discussion on a rule of adding documents. Quarantined documents could be added on the fly if no objection. The agenda was approved after some modifications.

 **Submissions**

1. [1147r7](https://mentor.ieee.org/802.11/dcn/21/11-21-1147-07-00be-cc36-cr-35-6-restricted-twt-announcement.docx) CR-35.6 Restricted TWT Announcement Chunyu Hu [10C SP only]

Discussion:

C: Could you provide the detail of occupation of r-TWT SP?

C: OBSS obeying?

C: I think r-TWT SP is defined for active SP. Why do you define to advertise the inactive r-TWT SP? It’s premature to add 0 and 3.

C: For the second highlight text, do you mean AP does not include the element for inactive SP?

SP: Do you support to accept the resolution in 11-21/1147r8 for the following CIDs?

4156, 4433, 4783, 5938, 6412, 6746, 7858, 6948, 4151

33Y, 49N, 16A

1. [1840r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1840-03-00be-cc36-cr-for-emlmr-links.docx) CR for EMLMR Links Yuxin Lu [7C SP]

Discussion:

C: I’d like to know size of EMLMR Supported MCS and NSS Set. How about new fields for EMLSR? Could use the same fields.

A: I focus on EMLMR here. You have a documentation for it. We can discuss it with your doc.

SP: Do you support to accept the resolution in 11-21/1840r4 for the following CIDs?

* 4704 5671 6216 6778 6883 8358 4425

49Y, 16N, 38A

1. [0193r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0193-01-00be-cc36-cr-clause-9.docx) CR Clause 9 Minyoung Park [5C SP]

SP: Do you support to accept the resolution in 11-21/0193r1 for the following CIDs?

- 8264, 4000, 5822, 8274, 4009

No objection

1. [1699r4](https://mentor.ieee.org/802.11/dcn/21/11-21-1699-04-00be-cc36-cr-for-r-twt-rbo-before-service-period.docx) CR for r-TWT RBO before service period Abdel Karim Ajami [3C SP only]

Discussion:

C: This is STA’s implementation choice. Do we need to specify it?

A: We want to minimize the impact of the whole SP. It is just helpful to avoid this collision.

C: Concept is fine.

C: What is the next step?

A: Instead of holding RBO with zero, the STA can pick up new RBO.

C: I did not quite get that although I understand it.

SP: Do you support to accept the resolution in 11-21/1699r4 for the following CIDs?

6416, 6968, 5949

52Y, 21N, 28A

1. [0196r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0196-00-00be-cc36-cr-ml-traffic-indication.docx) CR ML Traffic Indication Minyoung Park [45C]

Discussion:

C: TIM element can be included in the TIM frame in addition to Beacon.

A: TIM frame does carry the legacy TIM element. This is for ML TIM.

C: Need to clarify the text for assigning AIDs with orders.

C: Assigning AIDs could be AP’s implementation.

C: Suggestion: the order of AID assignment should be: pre-EHT, non-AP MLD that do not support T2LM and non-AP MLDs that do support T2LM. This is recommendation.

C: Traffic indication with TID-to-link mapping is too restricted.

C: For resolution of 5041, there is not TIM element but just Traffic element. Need to be together with TIM element.

A: I mentioned TIDs in the texts. It indicates the specific AP in the MLD.

C: 11be should allow AP MLD reassign a different AID to an associated non-AP MLD to reduce ML traffic IE.

C: The first sentence could be redundant.

A: No harm. We can do at the next round if it’s redundant

SP: Do you support to accept the resolution in 11-21/196r1 for the following CIDs?

6499, 4069, 4392, 4066, 5990, 5147, 4390, 4391, 4710, 6246,

6253, 4748, 5381, 6372, 8238, 5761, 6251, 6249, 4397, 4071,

4393, 6734, 4113, 5041, 4070, 5194, 7726, 5219, 8037, 4469,

5148, 6733, 4118, 5725, 4394, 4395, 4396, 6250, 7821, 8180,

4929, 4930, 8181, 6894, 4398, 8239

No objection

1. [0308r1](https://mentor.ieee.org/802.11/dcn/22/11-22-0308-00-00be-cc36-resolution-for-cids-related-to-ml-advertisement-part-3.docx) Resolution for CIDs related to ML advertisement - Part 3 Abhishek Patil [24C]

Discussion:

C: Why do you describe it? Is it for HE STA?

C: 6GHz STA that is not an EHT STA with removing them.

C: What is the operation of the EHT STA if we remove it?

The chair asked whether there are any other businesses before recessing the meeting. No response was received.

The teleconference was recessed at 21:00 ET