IEEE P802.11  
Wireless LANs

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| Telecon Minutes for REVme 2022 May 802 Wireless Interim | | | | |
| Date: 2022-05-15 | | | | |
| Author(s): | | | | |
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| Mark Hamilton |  |  |  |  |

Abstract

Minutes for the REVme (802.11me) Telecons during the IEEE 802 Wireless interim May 6-21.

Telecons for TGme were held from May 10 to May 16.

R0: May 10-13 Minutes: Action items list and References will be added in next revision.

1. **TGme (REVme) Telecon –Tuesday, May 10, 2022 at 16:00-18:00 ET**
   1. **Called to order** 4:03pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
      1. Introductions of Officers.
         1. Vice Chair - Mark HAMILTON (Ruckus/CommScope)
         2. Vice Chair - Mark RISON (Samsung)
         3. Editor - Emily QI (Intel)
         4. Editor – Edward AU (Huawei)
         5. Secretary - Jon ROSDAHL (Qualcomm)
      2. Editors will join telecon later.
   2. **Review Patent Policy and Copyright policy and Participation Policies.**
      1. See slides 12-21 11-22/0567r2:
      2. [**https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx)
      3. No issues noted.
   3. **Review Agenda:**
      1. **See doc 11-22/567r2**
         1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx>
         2. Daily Agenda plan reviewed:
      * Tuesday May 10, 4pm ET
        + Chair’s Welcome, Policy & patent reminder
        + Approve agenda
        + Motions
          - Telecon and March plenary minutes (Slide 6)
        + TG Officer Elections
        + Comment Resolution
          - CID 2267 – Au (Huawei)
          - CID 1040 – De La Olivia Delgado (InterDigital)
          - CID 1276 – document 11-22/253 – Halasz (Morse Micro)
          - CID 1413 – document 11-22/641 – Halasz (Morse Micro)
          - CID 1469 – document 11-22/680 – Halasz (Morse Micro)
          - CID 1490 – document 11-22/644 – Halasz (Morse Micro)
          - CID 2219 – document 11-22/563 – Torab (Meta)
          - ED1 CIDs – 11-22/319 – Qi (Intel)
        + Recess
      * Wednesday May 11, 4pm ET
        + Editor Report – 11-21/687
        + Comment Resolution
          - GEN CIDs – Rosdahl (Qualcomm)
        + Recess
      * Thursday May 12, 4pm ET
        + Comment Resolution
          - CID 2243, 2244, 2390, 2391 – document 11-22 Lin (InterDigital)
          - PHY CIDs – document 11-22/576 – Hart (Cisco)
          - PHY CIDs – document 11-22/520 – Kim (Qualcomm)
          - CID 1220 – Coffey (Realtek)
          - MAC CIDs – Hamilton (Ruckus-Commscope)
        + Recess
      * Friday May 13, 1:30pm ET
        + Comment Resolution
          - CID 2022 – document 11-22/522 – Asterjadhi (Qualcomm)
          - CIDs 1082, 1699, 1813 – Malinen (Qualcomm)
          - SEC CIDs – Montemurro (Huawei)
        + Recess
        + Monday May 16, 4pm ET
          - Motions

11-22/0059rX – slides x-y

* + - * + Comment Resolution

CID 2267 – Au (Huawei)

CID 1349 – Levy (InterDigital)

SEC CIDs – Montemurro (Huawei)

* + - * + Timeline, Teleconferences, Adhoc, Plan for May
    - AoB
    - Adjourned.
      1. Request for adding Doc11-22/330 by PoKai,
         1. Scheduled for June 20, 2022 Telecon.
      2. No objection for Approval of Agenda.
  1. **Motion Approve past Minutes:**
     1. **Motion:** Approve the minutes in the following documents
* **March plenary:** [**https://mentor.ieee.org/802.11/dcn/22/11-22-0462-05-000m-telecon-minutes-for-revme-2022-march-802-electronic-plenary.docx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0462-05-000m-telecon-minutes-for-revme-2022-march-802-electronic-plenary.docx)
* **REVme March teleconferences:** [**https://mentor.ieee.org/802.11/dcn/22/11-22-0517-01-000m-telecon-minutes-for-revme-march-21-and-28.docx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0517-01-000m-telecon-minutes-for-revme-march-21-and-28.docx)
* **REVme April teleconferences:** [**https://mentor.ieee.org/802.11/dcn/22/11-22-0609-02-000m-telecon-minutes-for-revme-april-4-11-22.docx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0609-02-000m-telecon-minutes-for-revme-april-4-11-22.docx)
* **REVme Adhoc:** [**https://mentor.ieee.org/802.11/dcn/22/11-22-0679-00-000m-minutes-for-revme-ad-hoc-april-26-28-2022.docx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0679-00-000m-minutes-for-revme-ad-hoc-april-26-28-2022.docx)
  + 1. Moved: Stephen MCCAAN
    2. Seconded: Jon Rosdahl
    3. Results: No objection – Unanimous Consent – Motion passes.
  1. **Vice Chair Election/Editor/Secretary Confirmation**
     1. Call for nominations
        1. No new nominations
     2. Close call for nominations at 16:16
     3. **Motion:** Confirm the following TGme Vice Chairs: *Mark Hamilton, and Mark Rison,*and confirm Emily Qi and Edward Au as TGme Editors, and confirm Jon Rosdahl as TGme Secretary
     4. Moved: Dan HARKINS
     5. Seconded: Stephen MCCANN
     6. Discussion: None
     7. Result: No Objection – Unanimous Consent – Motion passes.
  2. **Comment Resolution:**
     1. CID 2267 (ED2) – Edward AU (Huawei)
        1. Review comment
        2. Note that the VISO figure is clipped.
        3. Proposed Resolution: Accpet
        4. No Objection – Mark Ready for Motion.
  3. **Review Document: 11=22/0738r1-** CID 1040 – De La Olivia Delgado (InterDigital)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0738-01-000m-cid-1040.pptx>
     2. Not in proper format.
     3. Secretary fixed it up and sent to Author.
     4. Updated Document with proper header and footer creating 11-22/738r2
        1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0738-02-000m-cid-1040.pptx>
     5. CID 1040 (MAC):
        1. 802.1CQ is progressing through (.1) ballot. It includes BARC, for MAC address claiming. But, MAC address claiming is not ideal with 802.11 - would require a two-step process. This proposes an alternative, to support BARC without claiming.
        2. C: Concern with using ANQP or GAS, as they are both not secure and can be snooped.
        3. C: This overlaps with work already underway in TGbi.
        4. Discussion on which Task Group would be the better target.
        5. The Direction is probably to reject the comment and discuss in TGbi. (or TGbh).
        6. Discussion on value of pursuing here or other TGs.
        7. Proposed Resolution: CID 1040 (MAC): REJECTED (MAC: 2022-05-10 20:40:08Z): The commenter has withdrawn the comment.
        8. No Objection – Mark Ready for Motion.
  4. **Review doc 11-22/641r0** Dave HALASZ (Morse Micro)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0641-00-000m-cid-1413.docx>
     2. CID 1413 (GEN)
        1. Review Comment
        2. Review submission
        3. Proposed Resolution REVISED (GEN: 2022-05-10 20:50:35Z) CID 1413 (GEN): Incorporate the changes in <https://mentor.ieee.org/802.11/dcn/22/11-22-0641-00-000m-cid-1413.docx>
        4. No objection – Mark Ready for Motion.
  5. **Review doc 11-22/680r1** Dave HALASZ (Morse Micro)
     1. Document: <https://mentor.ieee.org/802.11/dcn/22/11-22-0680-01-000m-cid-1469.docx>
     2. CID 1469 (MAC)
        1. Review comment
        2. Review submission
        3. There is concern on how it was described.
        4. The Standard was created another group changed some behaviour, but we cannot just change the standard.
        5. CID 1469 (MAC): More work needed. MAC: 2022-05-10 20:53:33Z - Reviewed 11-22/0680r1. Request to clarify "no BSS membership selector is declared." Also, off-line discussion to agree wording of the clause 11 changes.
  6. **Review doc 11-22/644r1** Dave HALASZ (Morse Micro)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0644-01-000m-cid-1490.docx>
     2. CID 1490 (MAC)
        1. Review Comment
        2. Review proposed changes.
        3. Note microseconds acronym is “us”
        4. CID 1490 (MAC): More work needed (round up, or round to nearest?).
        5. Need to address “see below”
  7. **Review doc 11-22/0319r4** - Editor1 AdHoc Comments - Emily QI (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0319-04-000m-revme-wg-lb258-editor1-ad-hoc-comments.docx>
     2. CID 2308 (ED1)
        1. Review comment
        2. Review discussion in submission.
        3. Discussion on moving “That”.
        4. Proposed Change: Change the sentence as follows:

20 MHz-only non-access-point (non-AP) high-efficiency station (HE STA): A non-AP HE STA, in the frequency band in which it operates, that indicates in the Supported Channel Width Set subfield in the HE PHY Capabilities Information field in the HE Capabilities element that it does not support a channel width greater than 20 MHz

* + - 1. Updated changes proposed: STA that indicates in the xxx that it does not support a channel width greater than 20 MHz in the frequency band in which it operates.
      2. Reduction of the sentence was made as the bits are defined in the 2.4GHz.
      3. Proposed Resolution: Revised. Change the cited sentence to:

“20 MHz-only non-access-point (non-AP) high-efficiency station (HE STA): A non-AP HE STA that indicates in the Supported Channel Width Set subfield in the HE PHY Capabilities Information field in the HE Capabilities element that it does not support a channel width greater than 20 MHz.”

* + - 1. No Objection – Mark Ready for Motion.
  1. **Review doc 11-22/0563r1** Payam TORAB (Meta)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0563-01-000m-htc-subfield-and-ht-control-field-clarifications-for-dmg.docx>
     2. CID 2219 (MAC)
        1. Review Comment
        2. The comment was to be rejected, but in further review there was some changes to the cited area that needed some modification.
        3. Discussion on setting the HT Control field.
        4. CID 2219 (MAC): REJECTED (MAC: 2022-05-10 21:23:23Z) - The HT Control field is not present in frames transmitted by DMG STAs.
        5. No Objection – Mark Ready for Motion.
        6. More discussion on this submission may occur and may come back at a later time.
  2. **Return to Review doc 11-22/0319r4** Editor Adhoc Comments - Emily QI (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0319-04-000m-revme-wg-lb258-editor1-ad-hoc-comments.docx>
     2. CID 2309 (ED1)
        1. Review comment
        2. Review discussion in submission.
        3. Remove comma that should not be added.
        4. Proposed Resolution: Revised.

“20 MHz operating non-access-point (non-AP) high-efficiency station (HE STA): A non-AP HE STA that is operating in a 20 MHz channel width mode, such as a 20 MHz-only non-AP HE STA or an HE STA that has reduced its operating channel width to 20 MHz using operating mode indication (OMI).”

* + - 1. No Objection – Mark Ready for Motion.
    1. CID 1259 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Proposed Resolution: CID 2309 (ED1): Revised. Incorporate changes in 11-22/319r5. Change the cited text to: A STA shall reply to a transmit beam refinement training request with a BRP frame containing a DMG Beam Refinement element with the TX-TRN-OK field and TX-train-response field both set to 1 and the BS-FBCK field set to indicate the TRN-T subfield on which the responding STA received the best signal (the determination of best signal is implementation dependent).
       4. No Objection – Mark Ready for Motion.
    2. CID 1250 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Need to not delete the “EDMG Short BRP” which names the subfield.
       4. Discussion on if the article choice is correct.
       5. Proposed Resolution: CID 1260 (ED1): Revised. Incorporate changes in 11-22/319r5, for CID 1260.
       6. No Objection – Mark Ready for Motion.
    3. CID 1358 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Other locations noted.
       4. Proposed Resolution: Revised;

This is an editorial error. The issue is fixed in D1.2.

Also, at the following locations in D1.2: 900.37, 2180.16, 2621.61, 2628.31, 1168.49, 2004.27, 2397.42,

Change “((11ay)An A-MPDU carried in an EDMG PPDU can include MPDUs with different values for the TID field as described in 10.70 (EDMG A-MPDU with multiple TIDs(11ay)).)”

To: “9.8 (MAC frame format for PV1 frames)”.

* + - 1. No Objection – Mark Ready for Motion.
    1. CID 1180 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Proposed Resolution: Accepted.
       4. No Objection – Mark Ready for Motion.
    2. CID 1180 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Proposed Resolution: Accepted.
       4. No Objection – Mark Ready for Motion.
    3. CID 1340 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Discussed the changes in 11-22/1128 document changes may be similar.
       4. Proposed Resolution: Revise. In D1.2, add a new subclause number “9.3.2.2.3 Mesh A-MSDU subframe format”.
       5. No Objection – Mark Ready for Motion.
    4. CID 1348 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Proposed Resolution: Accepted.
       4. No Objection – Mark Ready for Motion.
    5. CID 1356 (ED1)
       1. Review comment
       2. Review discussion in submission.
       3. Proposed Resolution: Revised. Replace "direct-link" with "direct link". Note to Editor: Delete the hyphen from "direct-link" occurrences throughout the Standard.
       4. No Objection – Mark Ready for Motion.
  1. **Recess 18:03**

1. **TGme (REVme) Telecon –Wednesday, May 11, 2022 at 16:00-18:00 ET**
   1. **Called to order** 4:02pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
      1. Introductions of Officers.
         1. Vice Chair - Mark HAMILTON (Ruckus/CommScope)
         2. Vice Chair - Mark RISON (Samsung)
         3. Editor - Emily QI (Intel)
         4. Editor – Edward AU (Huawei)
         5. Secretary - Jon ROSDAHL (Qualcomm)
   2. **Review Patent Policy and Copyright policy and Participation Policies.**
      1. See slides 12-21 in doc 11-22/0567r2:
      2. [**https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx)
      3. No issues noted.
   3. **Review Agenda for Wednesday** in 11-22/567r3:
      1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0567-03-000m-tgm-agenda-may-2022-session.pptx>
      2. Wednesday:
         1. Editor Report – 11-21/687
         2. Comment Resolution
         3. GEN CIDs – Rosdahl (Qualcomm)
         4. Recess
      3. No objection to proposed Agenda.
   4. **Editors’ report** – Emily QI (Intel):
      1. Presented 11-21/0687r7 (<https://mentor.ieee.org/802.11/dcn/21/11-21-0687-07-000m-802-11revme-editor-s-report.pptx>)
      2. D1.2 posted in April (in members’ area). All approved comment resolutions through Feb/Mar 2022.
      3. Word docs and figures also available (same area)
      4. Master spreadsheet updated (11-22/0065r6)
         1. https://mentor.ieee.org/802.11/dcn/22/11-22-0065-06-000m-revme-wg-ballot-comments.xls
      5. 389 comments have been resolved; 160 are ready for motion (not including this week so far).
      6. Reminder about comments assignees (slide 6)
      7. ACTION ITEM #1: Mike to fix one comment assigned to “Mark Rision”
   5. **GEN Review comments** – Jon ROSDAHL (Qualcomm)
      1. GEN Review Comments
      2. CID 1947 (GEN):
         1. Review Comment
         2. Initially Proposed Accepted.
         3. Many parameters are missing in this figure. ANonce is not important in Message 3, and should not be added, it just adds confusion in this context.
         4. P3215.63 lists the ANonce. Agreed, but it is still not important. Then, suggest adding words that the parameter lists are not complete.
         5. This figure is meant to be clear about what information is used to establish keys, and ANonce in Message 3 is not for that purpose.
         6. Straw poll: Do you agree with the resolution of CID 1947 as “Reject - The list of parameters is not a complete list, and ANonce is not adding any benefit. See page 3215 line 62 has the details for message 3. The purpose of the figure is to show the “Establishing pairwise and group keys”. Results: 13-4-13-26.
         7. Proposed Resolution: REJECTED (GEN: 2022-05-11 20:23:33Z) Reject - The list of parameters is not a complete list, and ANonce is not adding any benefit. See page 3215 Line 62 has the details for message 3. The purpose of the figure is to show the "Establishing pairwise and group keys".
         8. Mark Ready for Motion.
      3. CID 1334 (GEN):
         1. Review comment
         2. Proposed Resolution: ACCEPTED (GEN: 2022-05-11 20:26:38Z)
         3. No objection -- Ready for Motion.
      4. CID 1526 (GEN):
         1. Review Comment
         2. Initially propose Accepted.
         3. But, an IBSS doesn’t have association, so “associated in a QoS BSS” already excludes an IBSS.
         4. Yes, but that is pretty subtle. How about saying “a member of” if the “associated” concept is redundant (and potentially confusing)?
         5. Proposed Resolution: REVISED (GEN: 2022-05-11 20:33:51Z) change the cited sentence "A range of 0 to 15 is supported by QoS STAs associated in a QoS BSS; whereas a range of 0 to 7 is supported by QoS STAs that are members of a QoS IBSS."

to

"A range of 0 to 15 is supported by QoS STAs that are members of a QoS BSS that is not an IBSS; whereas a range of 0 to 7 is supported by QoS STAs that are members of a QoS IBSS..”

* + - 1. No objection -- Ready for Motion.
    1. CID 1365 (GEN):
       1. Review Comment
       2. Initially proposed Accepted.
       3. Note that “Association Request frame” needs to change to “Reassociation Request frame” in the second location.
       4. Also, the “and”s and “or”s are not clear.
       5. Proposed Resolution: REVISED (GEN: 2022-05-11 20:46:48Z). At P424.23, Change "Indicates the preferred BSS max idle period parameters. This parameter is optionally present if dot11WirelessManagementImplemented and dot11BSSMaxIdlePeriodIndicationByNonAPSTA are true, or if dot11S1GOptionImplemented is true; otherwise not present."

To

"Indicates the preferred BSS max idle period parameters. This parameter is present if the BSS Max Idle Period element was present in the Association Request frame and if dot11WirelessManagementImplemented and dot11BSSMaxIdlePeriodIndicationByNonAPSTA are true, or dot11S1GOptionImplemented is true; is not present otherwise."

Also at 450.24, Change "Indicates the preferred BSS max idle period parameters. This parameter is optionally present if dot11WirelessManagementImplemented and dot11BSSMaxIdlePeriodIndicationByNonAPSTA are true, or if dot11S1GOptionImplemented is true; otherwise not present.

To

"Indicates the preferred BSS max idle period parameters. This parameter is present if the BSS Max Idle Period element was present in the Reassociation Request frame and if dot11WirelessManagementImplemented and dot11BSSMaxIdlePeriodIndicationByNonAPSTA are true, or dot11S1GOptionImplemented is true; is not present otherwise."

* + - 1. No objection – Mark Ready for Motion.
    1. CID 1236 (GEN):
       1. Review Comment initially proposed Accepted.
       2. Why is the RSNI wording different from the RCPI wording?
       3. On review, believe the RSNI and RCPI should be the same language.
       4. Also at P541.19 there is other wording.
       5. Proposed Resolution: REVISED (GEN: 2022-05-11 20:56:52Z) at P425.11 Replace:

"The RSNI value represents the measured RSNI of the received PPDU containing at the time the corresponding Association Request frame was received."

with

"The RSNI value represents the measured RSNI of the received PPDU containing the corresponding Association Request frame."

Also, at 451.16 Replace "The RSNI value represents the measured RSNI of the received PPDU

containing the corresponding Reassociation Request frame was received."

with

"The RSNI value represents the measured RSNI of the received PPDU containing the corresponding Reassociation Request frame."

* + - 1. No Objection – Mark Ready for Motion.
    1. CID 1505 (GEN):
       1. Review Comment initially proposed Accepted.
       2. This CID is in 11-22/0353.
       3. Mark Submission Required and Assign to Mark RISON.
    2. CID 1716 (GEN):
       1. Review comment
       2. If these interfaces were meant to be helpful to how real implementations work, this primitive would be helpful.
       3. This is in doc 11-22/722.
       4. Where is ARC going with issues like this, in their clause 6 changes?
       5. Do not wait for ARC.
       6. If this is a useful concept, then it should be mentioned in the text, in clause 11, rather than deleted from here.
       7. Set to Submission Required, and assign to Menzo, to be considered in 11-22/722.
    3. CID 2320 (GEN):
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (GEN: 2022-05-11 21:10:35Z).
       3. No objection – Mark Ready for Motion.
    4. CID 1321 (GEN):
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (GEN: 2022-05-11 21:12:09Z).
       3. No objection – Mark Ready for Motion.
    5. CID 1717 (GEN):
       1. Review Comment
       2. This is an example of the problems in subclause 6.3, and why ARC is trying to simplify.
       3. This seems like useful information; we need a better reason to remove it.
       4. Note that this EssLinkParameterSet is referenced in other places, as well. We would need to double-check those locations, before deleting it.
       5. Note that this is in the 802.21 interface section. We should not remove items without confirming with any 802.21 cross-references.
       6. Discussion about whether the standard has any mechanism described for how such an RSSI is obtained from the PHY. If not, we could add that; otherwise we should remove this as the information cannot be generated.
       7. Clearly, this works in the real-world. Do we need to specify every bit of such information in our spec, when clearly implementers know how to do this?
       8. There is separate work going on to clean up RSSI versus RCPI. Perhaps that can solve the problem, by mapping those.
       9. Set to Submission Required and assign to Youhan KIM.
    6. CID 1060 (GEN):
       1. Review Comment
       2. Initially proposed Accepted.
       3. Not convinced that aTxPHYDelay in equation 10-4 is really “not relevant”.
       4. ACTION ITEM #2: Jon ROSDAHL to send CID 1060 (GEN) information to the WG and REVme reflectors.
       5. Come back next time GEN is reviewed.
    7. CID 2364 (GEN):
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (GEN: 2022-05-11 21:29:18Z).
       3. No objection. – Mark Ready for Motoin
    8. 2361 (GEN):
       1. Review comment
       2. Proposed Rejected. The Supported Bands clearly does not include 6 GHz.
       3. Also, asked a WUR expert and was told that WUR does not support 6 GHz.
       4. Proposed Resolution: REJECTED (GEN: 2022-05-11 21:38:59Z) 6 GHz is intentionally not a supported band for the WUR definition.

Clause 30.1 Introduction describes the bands used for WUR.

No Change is necessary.

* + - 1. Mark Ready for Motion.
    1. CID 2354 (GEN):
       1. Review Comment
       2. Proposed Resolution: REJECTED (GEN: 2022-05-11 21:39:47Z) The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
       3. No objection – Mark Ready for Motion.
    2. CID 2358 (GEN):
       1. Review Comment
       2. Discussion of possible resolution: Rejected. The subclause seems to be consistent,
       3. But, other subclauses in this clause are not consistent. However, there is no clear direction, or any need for the change.
       4. Proposed ResolutionREJECTED (GEN: 2022-05-11 21:43:10Z) the cited clause is "26.5.2.5 UL MU CS mechanism" and it consistently uses "non-AP STA " throughout the clause.
       5. No objection – Mark Ready for Motion.
    3. CID 2389 (GEN):
       1. Review Comment
       2. Proposed Resolution: REVISED (GEN: 2022-05-11 21:47:04Z) Change the title of 26.10 to "HE spatial reuse operation".
       3. Is there anything special about spatial reuse, that this subclause needs the “HE” designation, but all/many of the other subclauses don’t need it? Is there any ‘rule’ for this in the PHY clauses? Editor says there is no rule.
       4. If this is correct, we should do it, to remove any ambiguity.
       5. This could spin off into a whole bunch of more changes to add “HE” to all the legacy spatial reuse uses. Other potential locations would have to justify a needed change on a case-by-case basis.
       6. No objection to the proposed “Revised.”
       7. Mark Ready for Motion.
    4. CID 2357 (GEN):
       1. Review Comment
       2. Discuss proposed resolution to Revise, to remove the note.
       3. This note is useful, because it is in the clause about 6 GHz, and it is helpful to keep the reminder.
       4. Suggest Rejected. The note is pointing out specified normative behaviors, and it helps the reader to be reminded.
       5. Proposed Resolution: REJECTED (GEN: 2022-05-11 21:56:01Z) the note is correct, and having it located in both 26.17.2.2 and 26.15.6 and helps the reader understand that specific requirements of which band the Beacon type is transmitted.
       6. No Objection – Mark Ready for Motion.
    5. CID 1147 (GEN):
       1. Review Comment
       2. Discuss proposal for Accepted.
       3. Editor comments that such updates are a standard part of preparing the standard for publication.
       4. ACTION ITEM #3 Emily QI to post to the reflector the Editor’s process for noting self referencing draft references.
       5. Proposed Resolution: REVISED (GEN: 2022-05-11 21:58:45Z) Revised. At 4921.10, add an Editor Note: Any <year> below will be replaced by the year of publication by the IEEE-SA publication editor. At 4921.15, Change “IEEE Std 802.11-2020” to “IEEE Std 802.11-<year>”..
    6. CID 2236 (GEN):
       1. Review Comment
       2. Proposed Accepted.
       3. Do we need this note at all? Do we need to mention all regulatory history?
       4. Come back to this.
       5. Out of time
  1. **Recess at 18:02 ET**

1. **TGme (REVme) Telecon –Thursday, May 12, 2022 at 16:00-18:00 ET**
   1. **Called to order** 4:01pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
      1. Introductions of Officers.
         1. Vice Chair - Mark HAMILTON (Ruckus/CommScope)
         2. Vice Chair - Mark RISON (Samsung)
         3. Editor - Emily QI (Intel)
         4. Editor – Edward AU (Huawei)
         5. Secretary - Jon ROSDAHL (Qualcomm)
      2. Editors will join later in the call.
   2. **Review Patent Policy and Copyright policy and Participation Policies.**
      1. See slides 12-21 in doc 11-22/0567r2:
      2. [**https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx)
      3. No issues noted.
   3. **Review Agenda for Thursday** in 11-22/567r3:
      1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0567-03-000m-tgm-agenda-may-2022-session.pptx>
      2. Today’s Comment Resolution:
2. CID 2243, 2244, 2390, 2391 – document 11-22 Lin (InterDigital)
3. PHY CIDs – document 11-22/576 – Brian HART (Cisco)
4. PHY CIDs – document 11-22/520 – Youhan KIM (Qualcomm)
5. CID 1220 – Coffey (Realtek)
6. MAC CIDs – Hamilton (Ruckus-Commscope)
7. Recess
   * 1. No objection to proposed Agenda but will reorder for those present.
   1. **Review Document 11-22/520r4 – PHY CIDs – Youhan KIM (Qualcomm)**
      1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0520-03-000m-lb258-phy-cids-part-1.docx>
      2. CID 1070 (PHY)
         1. Review comment
         2. Review submission discussion.
         3. Review proposed text updates.
         4. Proposed Resolution: REVISED

**Note to commenter:**

TRIGVECTOR is used to configure an AP to receive an HE TB PPDU, and the AP does not know the frequency difference between AP and non-AP STA. Hence, TRIGVECTOR does not need a RELATIVE\_TX\_RX\_FREQ\_OFFSET parameter.

While passing the frequency error to MAC is one way, please note that the TB PPDU is the PPDU transmitted immediately after receiving the triggering PPDU. Hence, it seems simpler to remind the readers that the frequency error to be compensated for an HE TB PPDU transmission was measures in the PPDU last received prior to the HE TB PPDU transmission. Whether or how the information is passed to MAC or not is an implementation detail.

The proposed text udpates below adds a NOTE indicating that the triggering PPDU from which the frequency error was measured for an HE TB PPDU transmission is the last received PPDU.

**Instruction to TGme Editor:**

Implement the proposed text updates for CID 1070 in 11-22/520r4: <https://mentor.ieee.org/802.11/dcn/22/11-22-0520-04-000m-lb258-phy-cides-part-1.docx>

* + - 1. No objection – Mark Ready for Motion.
    1. CID 2365 and 2110 (PHY)
       1. Review comment
       2. Review submission discussion.
       3. Review proposed text updates.
       4. Discussion on the MIB renaming process.
       5. The MIB name change will need to be done later following the renaming process.
       6. Discussion on the CCA-OCSED being included in Note 2 or not.
       7. Discussion on the process of inserting 17.3.10.6.2.
       8. Discussion on how the Note should be included (and where).
       9. Proposed Resolution for both CIDs (2365 and 2110): REVISED

**Note to commenter:**

The proposed text updates below separate out the CCA requirements for operating classes requiring CCA-ED into a separate subclause and renames CCA-ED to CCA-OCSED (Operating Class Specific ED).

**Instruction to TGme Editor:**

Implement the proposed text updates for CIDs 2365 and 2110 in 11-22/520r4: <https://mentor.ieee.org/802.11/dcn/22/11-22-0520-04-000m-lb258-phy-cides-part-1.docx>

* + - 1. No objection – Mark Ready for Motion.
    1. CID 1247 (PHY)
       1. Review comment
       2. Review submission discussion.
       3. Review proposed text updates.
       4. Discussion on the updated text and the use of “antenna connector”.
       5. Proposed Resolution: REVISED

**Note to commenter:**

The proposed text update below clarifies that 17.3.8.7 on deals with the case in which the antenna connecter is exposed as the commenter has suggested. Furthermore, similar change is made to 19.3.17 and 23.3.16 as well.

**Instruction to TGme Editor:**

Implement the proposed text updates for CID 1247 in 11-22/520r4: <https://mentor.ieee.org/802.11/dcn/22/11-22-0520-04-000m-lb258-phy-cides-part-1.docx>

* + - 1. No objection – Mark Ready for Motion.
    1. CID 2091 (PHY)
       1. Review comment
       2. Review submission discussion.
       3. Review proposed text updates.
       4. Discussion on the updated text.
       5. Proposed Resolution: REVISED

**Note to commenter:**

There are 12 instances of “each output port” in REVme D1.2, and most of them should not be changed to “except where otherwise noted, each output port”. The proposed text update below updates two locations of “each output port”.

**Instruction to TGme Editor:**

Implement the proposed text updates for CID 2091 in 11-22/520r4: <https://mentor.ieee.org/802.11/dcn/22/11-22-0520-04-000m-lb258-phy-cides-part-1.docx>

* + - 1. No objection – Mark Ready for Motion.
  1. **Review Document 11-22/652r4** - CID 2243, 2244, 2390, 2391 – Zinan LIN (InterDigital)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0652-04-000m-proposed-resolution-for-revme-lb258-cid-2243-2244-2390-2391.docx>
     2. CID 2243, 2244, 2390, 2391 (MAC)
        1. Review comments.
        2. Review submission discussion.
        3. Discussion on the units of PSR and how it is applied to channels wider than 20 MHz .
        4. More work will need to be done to complete the consensus process.
  2. **CID 1220 – Coffey (Realtek)**
     1. Will postpone for now.
  3. **Review Document 11-22/576** – PHY CIDs –Brian HART (Cisco)
     1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0576-00-000m-misc-phy-and-lower-level-cids.docx>
     2. CID 1052 (PHY)
        1. Review comment
        2. Review submission discussion.
        3. Discussion on holding off making the change for now as it seems to be a new requirement.
        4. Will take offline for more discussion.
     3. CID 1054 (PHY)
        1. Review Comment.
        2. Review submission discussion.
        3. As the review was being done a few typos were identified so an R1 will need to be generated.
        4. Note that the figure change is editorial but need the Editors to be aware.
        5. VISO files will need to be prepared and sent to the Editors.
        6. If the VISO files are embedded, it will be a new revision.
        7. Proposed Resolution: CID 1054 (PHY): Incorporate the changes shown in 11-22/0576r1 (<https://mentor.ieee.org/802.11/dcn/22/11-22-0576-01-000m-misc-phy-and-lower-level-cids.docx> ), for CID 1054.
     4. CID 1056 (MAC)
        1. Review Comment.
        2. Review submission discussion.
        3. Adds a Vendor Specific Trigger type.
        4. Ran out of Time, will need to have more discussion on the reflector.
  4. **MAC Review CIDs – Hamilton (Ruckus-Commscope)**
     1. MAC Comments – see doc: 11-21/0793r18:
        1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0793-18-000m-revme-mac-comments.xls>
     2. CID 1124 (MAC)
        1. Review Comment.
        2. Review context p4127.30.
        3. Discussion on if removing or changing is the correct direction.
        4. Proposed Resolution: Accepted.
        5. No Objection – Mark Ready for Motion.
     3. CID 1201 (MAC)
        1. Review comment.
        2. Review the proposed change.
        3. The only change is removal of “it”.
        4. Concern on the direction, so Alfred A. will verify the change is valid.
        5. Proposed Resolution: Accepted
        6. No Objection – Mark Ready for Motion.
     4. CID 1205 (MAC)
        1. Review comment.
        2. Review and discuss the proposed change.
        3. Proposed Resolution: Accepted.
        4. No Objection – Mark Ready for Motion.
     5. CID 1253 (MAC)
        1. Mark Submission Required, Assign to Joseph LEVY.
     6. CID 1249 (MAC)
        1. Review comment
        2. Review and discuss the proposed change.
        3. Discussion on when Quiet Channel Element.
        4. We could list the channels that are not allowed rather than a double negative. This would allow 320 Mhz to be allowed in the future.
        5. Proposed Resolution: REVISED (MAC: 2022-05-12 21:49:55Z) - MAC: 2022-05-12 21:49:17Z

Change

"An AP shall

not transmit a Quiet Channel element if the BSS bandwidth is neither 160 MHz nor 80+80 MHz."

to

"An AP shall

not transmit a Quiet Channel element if the BSS bandwidth is 20, 40 or 80 MHz."

* + - 1. No Objection – Mark Ready for Motion.
    1. CID 1271 (MAC)
       1. Review comment
       2. Review proposed Change.
       3. Proposed Resolution: Accepted
       4. No Objection – Mark Ready for Motion.
    2. CID 1324 (MAC)
       1. Review comment
       2. Review proposed Change, Note that Short A-MSDUs don’t have SA and DA fields.
       3. More work will need to be done.
       4. There may be a document that has this worked on. Mark RISON to identify the document.
          1. The document Mark RISON is referring to for CID 1324 in 11-21/816.
       5. Assign to Mark HAMILTON and mark submission required.
    3. CID 1533 (MAC)
       1. Review comment.
       2. Review proposed change.
       3. More discussion is needed.
       4. Out of Time.
  1. **Recess 18:00**

1. **TGme (REVme) Telecon –Friday, May 13, 2022 at 13:00-15:00 ET**
   1. **Called to order** 1:32pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
      1. Introductions of Officers.
         1. Vice Chair - Mark HAMILTON (Ruckus/CommScope)
         2. Vice Chair - Mark RISON (Samsung)
         3. Editor - Emily QI (Intel)
         4. Editor – Edward AU (Huawei)
         5. Secretary - Jon ROSDAHL (Qualcomm)
      2. Editors will join later in the call.
   2. **Review Patent Policy and Copyright policy and Participation Policies.**
      1. See slides 12-21 in doc 11-22/0567r2:
      2. [**https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0567-02-000m-tgm-agenda-may-2022-session.pptx)
      3. No issues noted.
   3. **Review Agenda for Wednesday** in 11-22/567r4
      1. [**https://mentor.ieee.org/802.11/dcn/22/11-22-0567-04-000m-tgm-agenda-may-2022-session.pptx**](https://mentor.ieee.org/802.11/dcn/22/11-22-0567-04-000m-tgm-agenda-may-2022-session.pptx)
      2. **Friday May 13, 1:30pm ET**
2. **Comment Resolution**
   1. **CID 1032 – document 11-22/522 – Asterjadhi (Qualcomm)**
   2. **CIDs 1082, 1699, 1813 – Malinen (Qualcomm)**
   3. **SEC CIDs – Montemurro (Huawei)**
3. **Recess**
   * 1. No objection to proposed agenda.
   1. **Review Document: 11-22/522r0** CID 1032 - Alfred ASTERJADHI, (Qualcomm)
      1. CID 1032 (MAC):
         1. Proposed to add a sentence <get quote>
         2. But, QoS STAs could be HCCA, etc. (beyond EDCA). Checked the context, and it appears that 10.2.3.2 applies to HCCA behavior.
         3. Concern that we are adding behavior requirements in clause 9. The existing statement about non-QoS STAs should also be moved to a behavior clause. The whole paragraph should be moved to clause 10, perhaps. Proposed “rule”, clause 9 should say “this field can be set to 5…” and clause 10/11 should say “a STA shall set the field to 5…”
         4. Straw poll: Do you support resolving CID 1032 as shown in 11-22/522r0?
         5. Results: Y: 3 N: 8 Abstain: 11
         6. ACTION ITEM #4: Alfred ASTERJADHI to come back with a resolution that considers the comments above for CID 1032 (MAC).
         7. Comment about general direction: Don’t need to try to clean up all of clause 9 for behavioral statements, but we should at least not make it any worse by adding new behavioral text in clause 9.
      2. CID 1029 (GEN):
         1. Proposed that we understand, and it is a good point. However, reject for lack of specific detail.
         2. Discuss proposed resolution: Rejected –The comment raises a good simplification point. However, the comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
         3. Can we just remove all these definitions (the many definitions like “20 GHz mask PHY PPDU)?
         4. We need to be careful, because for example in VHT you can send a 20 MHz PPDU with an 80 MHz mask. So that is called sending an “80 MHz mask PPDU”.
         5. Proposed Resolution: Rejected –The comment raises a good simplification point. However, the comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
         6. No objection – Mark Ready for Motion.
   2. **Review Document 11-22/0740r2** Jouni MALINEN (Qualcomm)
      1. <https://mentor.ieee.org/802.11/dcn/22/11-22-0740-02-000m-proposed-resolutions-to-some-lb258-comments.docx>.
      2. CID 1082 (SEC):
         1. There appear to be deployed implementations which differ in interpretation/use of this bit. So, we can clarify, but need to note that such implementations exist. 12.7.6 implies a behavior in its text, which might be considered an example.
         2. Prefer Option A. Implementations that did not implement the Standard correctly should be fixed.
         3. The Standard is ambiguous, so it is hard to state the implementations are incorrect.
         4. Concern that Option A is talking about the initial handshake, when we really mean to be talking about that a PTKSA is not shared (yet). Reworded.
         5. Should we clarify that there are existing known implementations that have set this bit to 0, rather than implying that it should be expected that going forward implementations might set the bit to 0. Are we opening the door for ongoing “incorrect” behavior in new implementations?
         6. The best we can do is to clarify what should be done, and assume implementations will pick up the change going forward.
         7. Given this mess, this bit is “dead”, and there is no point trying to worry about careful wording.
         8. If we go with Option A, should we do anything about the implications in 12.7.6 about this bit? Bring this as a new comment, if anyone is interested.
         9. Proposed Resolution; REVISED (SEC: 2022-05-13 18:20:07Z) - Incorporate the changes in <https://mentor.ieee.org/802.11/dcn/22/11-22-0740-03-000m-proposed-resolutions-to-some-lb258-comments.docx> under "CID 1082 changes - option A".
         10. Mark Ready for Motion.
      3. CID 1277 (SEC):
         1. Reviewed the changes in context (as shown in the document).
         2. Proposed some additional clean-up.
         3. Minor rewording (“and” -> “that is”).
         4. Looked at the figure updates, in the context of the CID 1278 changes, shown just below in the document.
         5. Proposed Resolution: REVISED (SEC: 2022-05-13 18:26:51Z) - Make the changes marked as "The proposed changes for CID 1277" in <https://mentor.ieee.org/802.11/dcn/22/11-22-0740-03-000m-proposed-resolutions-to-some-lb258-comments.docx>. This changes the text to the direction proposed in the comment and includes additional cleanup to address items that came up while reviewing the exact changes.
         6. Mark Ready for Motion.
      4. CID 1278 (SEC):
         1. Reviewed figure updates in document.
         2. No objections.
         3. Proposed Resolution: Revised. Replace "1(<123>)" with "1(123)" in Nothing->Nothing transition and "Rej(<123>)" with "Rej(123)" in Committed->Nothing transition of Figure 12-4.

Note to editors: Figure 12-4 is Figure 12-15 in REVme/D1.2 and the Visio source of the figure with the proposed changes is attached in <this document>. Also note that CID 1277 modifies the same figure and combined edits as a Visio source are also attached in <this document>.

* + - 1. Mark Ready for Motion.
    1. CID 1699 (MAC):
       1. Propose a slightly different change, based on discussion in the document of the (subtle) details of how both non-AP STA and AP must behave, with the information they have in this scenario. This notes that the non-AP STA and AP end up in mismatched state, potentially, and perhaps we want to fix/change that, also (although with the usual problem that existing implementations won’t have seen this change). Without making such a technical change, the NOTE proposed in the comment is not actually correct.
       2. Option A, add the NOTE from the comment, but only for the non-AP (the AP NOTE being incorrect). Option B, add the technical change, and both the NOTEs from the comment.
       3. Support the idea that we go with “Option C” which is to add a mechanism where the AP says it will not drop the association if a reassociation to the same AP fails. But, we can’t do that now. We could perhaps (now) change the AP behavior to match the non-AP (current) behavior of dropping the association – that would be a change to item “n)” for the AP.
       4. Significant word-smithing and checking of a change to “n)” to confirm the nested “if”s and “otherwise”, to check that all cases are covered. Small word-smithing to the “k)” changes.
       5. Proposed Resolution: REVISED (MAC: 2022-05-13 18:53:44Z): Incorporate the changes in 11-22/0740r3 (https://mentor.ieee.org/802.11/dcn/22/11-22-0740-03-000m-proposed-resolutions-to-some-lb258-comments.docx) for CID 1699 Option B. This adds a NOTE for the non-AP STA and modifies 11.3.5.5 to match AP behavior to delete the SAs in 12.6.18, i.e., to delete them in this particular case of failing reassociation to the same AP when management frame protection is not used. Furthermore, the AP will go to State 2 instead State 3 in this specific case.
       6. Mark Ready for Motion.
    2. CID 1813 (MAC):
       1. Earlier discussion identified that some more changes are likely needed. This is discussed in the document, and different changes are suggested for the resolution.
       2. Noted that PBSS support of MFP is unclear, but that is beyond the scope of this comment.
       3. Proposed Resolution: REVISED (MAC: 2022-05-13 19:03:01Z): Make the changes marked as "The proposed changes for CID 1813" in 11-22/0740r3 (https://mentor.ieee.org/802.11/dcn/22/11-22-0740-03-000m-proposed-resolutions-to-some-lb258-comments.docx). This includes the changes proposed in the comment and additional changes to 4.5.4.9 to clean up the description of management frame protection protocol applicability to group addressed frames.
       4. Mark Ready for Motion.
  1. **Review SEC comments** (from database) Michael Montemurro
     1. CID 1791 (SEC)
        1. Comments:
        2. The correct subclause for consideration is 1.4, not 1.5.
        3. Discussed on whether the term "further processing" is needed.
        4. Better to add "a construction of the form" for the sake of consistency with the other word usage in 1.4.
        5. Discussed on whether the frame needs acknowledgment.
        6. Proposed Resolution: Revised: At the end of clause 1.4 (p182.55 in D1.0), add the following text: "A construction of the form "silently discarding a frame" means that the STA shall discard the frame without further processing and without any externally observable notification that it has done so."
        7. Mark Ready for Motion.
     2. CID 1738 (SEC)
        1. Comments: None.
        2. Proposed Resolution: Accepted.
        3. Mark Ready for Motion.
     3. CID 1713 (SEC)
        1. Comments: None.
        2. Proposed resolution; Accepted.
        3. Mark Ready for Motion.
     4. CID 1386 (SEC):
        1. postponed for further work by Mike
     5. CID 1559 (SEC)
        1. Comments:
           1. What is wrong with the original text "corresponding temporal key"? Look nothing wrong.
        2. Proposed Resolution: Rejected - PTK is the combination that includes the TK that is used in GCMP and CCMP. The temporal key is the correct term to use in the cited text.
        3. Mark Ready for Motion.
  2. **Adjourned 15:30 ET**



**References:**