IEEE P802.11  
Wireless LANs

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| Minutes for REVmd - July 2019 - Vienna | | | | |
| Date: 2019-07-18 | | | | |
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Abstract

Minutes for the 802.11md (REVmd) meetings during the 2019 July 802 Plenary held in at the Austria Centre Vienna, Vienna Austria.

1. **802.11md (REVmd) Meetings – July 2019 IEEE 802 Wireless Interim – Vienna - Monday PM1 13:30-15:30** 
   1. **Called to order** at 1:31 pm by the chair, Dorothy STANLEY (HPE)
   2. **Review patent policy**
      1. No issues noted.
   3. **Review Participation slide**:
      1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   4. **Review Agenda doc 11-19/960r3**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-03-000m-2019-july-tgmd-agenda.pptx>
      2. Moved: Jouni MALIN 2nd: Michael MONTEMURRO
      3. Results: No objection to approval of Agenda
   5. **Editor Report – Edward AU**
      1. See doc: 11-17/092r18
         1. <https://mentor.ieee.org/802.11/dcn/17/11-17-0920-18-000m-802-11revmd-editor-s-report.ppt>
      2. Review Status of Reference Documents
      3. About 157 CIDs ready for Motion
      4. About 228 CIDs left to process
   6. **Review doc 11-19/610r1 Emily QI (Intel) presented by Edward Au (Huawei)**
      1. CID 2234 (MAC)
         1. Review Comment
         2. Review proposed change examples for context.
         3. Review analysis of the patterns of concern.
         4. Discussion on matching the Editor Style guide for repeating fields.
         5. How to depict the fields without changing the description?
         6. Discussion on need to define the “n” as well as defining the “STA Info List Field”.
         7. The discussion on how to proceed was filled with many options. The list of changes will need to be discussed offline.
         8. The Idea is to move the changes toward the Editorial Style Guide, but the inconsistencies will need to be worked out.
         9. Edward will work on trying to resolve the CID in Emily’s absence.
   7. **PHY and 11aj CIDs – Michael MONTEMURRO – also 2048, 2387 and 2678 (45 mins)**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1034-02-000m-proposed-resolutions-for-11aj-related-comments-in-revmd-lb236.doc>
      2. These resolutions were provided by Shiwen HE and Jiamin CHEN – Thanks to their submission.
      3. CID 2035 (PHY)
         1. Review comment
         2. Proposed resolution: Revised at the cited location “txt” to “tx”
         3. Mark Ready for Motion
      4. CID 2357 (PHY)
         1. Review comment
         2. Discussion on the changes being proposed for the MIB variables cannot be implemented as is. Need to back them out.
         3. “CMMG Control field” needs to be searched for to ensure all cases covered.
         4. Discussion on introducing “variant” version does not seem a welcomed path.
         5. The document is a good path to move forward, but the context of the changes is not fully appreciated, and a further change would be needed to get the update.
         6. ACTION ITEM: Assign to Mark RISON/Mark Hamilton to prepare an updated resolution.
      5. CID 2041 and 2042 (PHY)
         1. Review Comment
         2. Discussion on if there needs to be a different direction.
         3. Comment was from Assaf.
         4. We have discussed this in the past, and the discussion then was not to make a quick fix but need a better resolution.
         5. ACTION ITEM: Mike to check with Assaf on if this resolution is sufficient.
      6. CID 2048 (PHY)
         1. Skipped over it.
         2. Waiting on response from Assaf.
      7. CID 2047 (PHY)
         1. Review Comment
         2. This was previously an accept, but after review, we have an updated resolution.
         3. Proposed Resolution: Revised; Make the changes shown under “Proposed changes” for CID 2047 in 11-19/1034r3: <<https://mentor.ieee.org/802.11/dcn/19/11-19-1034-03-000m-proposed-resolutions-for-11aj-related-comments-in-revmd-lb236.doc> >, which make the change proposed by the commenter, and additionally make a similar change in Clauses 20 and 25.
         4. Mark Ready for Motion
   8. **Review doc 11-19/1136r1 Mike MONTEMURRO (Blackberry)**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1136-01-000m-lb-236-additional-comment-resolutions.docx>
      2. CID 2198 (GEN)
         1. Review Comment
         2. Proposed Resolution: REVISED (GEN: 2019-07-15 12:33:11Z) Relative to D2.0,

In 6.3.31.3.2 remove the reference to dot11RMNNeighborReport.

Replace:

“A set of Neighbor List elements derived from the MIB table dot11RMNeighborReportTable, each representing a neighboring AP being reported as defined in the Neighbor Report element format.”

With:

“A set of Neighbor List elements for each for the neighboring APs being reported on as described in 11.10.10.3 and defined in the Neighbor Report element format.”

At p2282.10, replace:

“The mechanism by which the contents of this table are determined is outside the scope of this standard, but it may include information from measurement reports received from the STAs within the BSS, information obtained via a management interface, or the DS.”

With:

“The mechanism by which the contents of this table are determined is outside the scope of this standard, but it may include information from measurement reports received from the STAs within the BSS, information provisioned in dot11RMNeighborReportTable, or the DS.”

* + - 1. Discussion on the proposal and if we needed to remove “and defined in the Neighbor Report element format.” – The Proposed resolution was updated with the deletion.
      2. After more debate and noticing other issues that may need to be corrected, the CID was reassigned to Joseph LEVY.
      3. Add to Insufficient information Category and prepare Resolution for Reject – insufficient Information.
    1. CID 2436 (PHY)
       1. Review Comment
       2. Concern that Protected and Encrypted are tied together or not consistently.
       3. Discussion the use of protected does not always mean encrypted.
       4. Discussion on if there is value in adding “protected” in front of all the “robust Management” instances. “Unprotected robust Management Frames” is not defined.
       5. More work needs to be done – Assign to Jouni Melanin
    2. CID 2440 (PHY)
       1. Review Comment
       2. Discussion on the listing of all or some of the fields in the description.
       3. There is a “for each of the …fields”, so all fields need to be included.
       4. Discussion on if the “Key Data Length = length of Key Data field in octets” is true in all cases. It was determined it would be.
       5. Proposed Resolution: Revised. REVISED (PHY: 2019-07-16 06:40:34Z) - The cited clauses include the value of all fields of the IEEE 802.1X EAPoL key frame and provide guidance on the implementation of the key exchanges. Relative to D2.0,

In clause 12.7.7.3, (p2638.10), replace:

“Key Data Length = 0

Key Data = (M58)

— OCI KDE when dot11RSNAOperatingChannelValidationActivated on the Authenticator(M58)”

With:

“Key Data Length = length of Key Data field in octets

Key Data = OCI KDE when dot11RSNAOperatingChannelValidationActivated on the Authenticator”

At 2629.62, replace:

“Key Data Length = length of Key Data field in octets of included RSNEs and GTK”

With

“Key Data Length = length of Key Data field in octets”

At 2637.3, replace:

“Key Data Length = Cipher-suite dependent(#1408) ; see Table 12-5 (Cipher suite key lengths)”

With

“Key Data Length = length of Key Data field in octets”

* + - 1. No objection – Mark Ready for Motion
    1. CID 2505 (PHY)
       1. Review Comment
       2. Discussion on of the SA Query Transaction Identifier.
       3. Proposed Resolution: Revised. Make the proposed change at the following locations: “2573.12, 2573.14, 2573.18, 2573.20, 2573.41, and 2573.44”
       4. There may be a couple locations to be added to the resolution.
       5. Mark Ready for Motion with the extra locations added.
    2. CID 2509 (PHY)
       1. Review Comment
       2. Proposed Resolution: Revised. Relative to D2.0,

Key-wrap algorithms are cryptographic algorithms that encrypt and integrity protect key material. Therefore the use of the term “wrapped” is correct.

The Key Wrap field does contain wrapped keying material so the current text is correct.

At p1148.1, change "Key Length field is" to "The Key Length field is" and "RSC field contains" to "The RSC field contains"

* + - 1. Discussion on the word “wrapped”. What is it? Does it contain an ITGK or not? There is a normative reference to the RFC on the key wraping.
      2. Mark Ready for Motion
    1. CID 2565 (GEN)
       1. Review Comment
       2. Proposed Resolution: Rejected. The term packet is precise when used in the context of cryptographic encapsulation. The term used consistently and is in line with normative references RFC3610 and NIST Special Publication 800-38D.
       3. Mark Ready for Motion
  1. **Review doc 11-19/0551r6 Mark HAMILTON**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0551-06-000m-revmd-lb236-comments-assigned-to-hamilton.docx>
     2. CID 2692 (MAC)
        1. Review comment
        2. Review proposed changes
        3. Discussion on the use of Probe Request.
        4. Add Some hint to include the SSID List could be added to “c)”.
        5. Need to explain continuation TXOP in “d)”
        6. Work with the Editors to fix-up the references.
        7. We could reject the comment with the explanation on what the differences are in “e)”
        8. More work on this will need to be done on this CID.
  2. **Recess at 3:30pm**

1. **Monday PM2 - 802.11md - REVmd – F2F, Monday 15 July 2019, 16:00- 18:00 ET**
   1. **Call to Order** at 16:03 ET by the Acting TG Chair, Mike MONTEMURRO (BlackBerry)
   2. **Attendance reminder**
   3. **Review Patent Policy**
      1. Call for essential patents
      2. No issues noted
   4. **Review Agenda** – 11-19/0960r4
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-04-000m-2019-july-tgmd-agenda.pptx>
      2. Review draft agenda comment processing:
         1. Monday PM2
            * 11-19-1195 – Menzo WENTINK (60 mins)
            * 11-19-1045 – Assaf KASHER (35 mins)
            * 11-19-720, 11-19-721, 11-19-586r5 – Thomas DERHAM (20 mins)
      3. No objection to proposed agenda
   5. **Review Doc: 11-19-1195r2** – Menzo WENTINK (Qualcomm)
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-02-000m-assorted-crs.docx>
      2. CID 2099 (MAC):
         1. Reviewed comment, and proposed resolution.
         2. Discussed possible Resolution: Revised.
            * agree with the comment.
            * The cited note is
            * "NOTE 2—After transmitting a PPDU containing an RDG, if the response is corrupted so that the state of the RDG/More PPDU subfield is unknown, the RD initiator of the RD exchange is not allowed to transmit after a SIFS. Transmission can occur a PIFS after deassertion of CS."
            * 1880.37 delete NOTE 2
            * 1880.35 insert
            * "After transmitting a PPDU containing an RDG, if the response is corrupted so that the state of the RDG/More PPDU subfield is unknown, the RD initiator of the RD exchange shall not transmit after a SIFS.
         3. Ask Carlos Cordeiro for feedback. In particular, the second part of the comment.
         4. Consider this use of the phrase “is corrupted”, and making that normative text – is that too vague? It would be that it doesn’t receive a response (per our definition of “received”).
         5. CIDs 2111 is on the same text and topic. Will bring back with CID 2099.
      3. CID 2111 (MAC):
         1. Propose to reject the comment, as RAV is covered by the current text.
         2. Proposed Resolution: REJECTED (MAC: 2019-07-18 09:30:44Z): The sentence correctly refers to the remaining NAV timer value and the remaining RAV timer value with this text: "is less than the remaining TXNAV timer value and, if dot11MCCAActivated is true, the remaining RAV timer value"
         3. Ready for motion.
      4. CID 2117 (MAC):
         1. Believe making the feature obsolete is sufficient.
         2. Proposed Resolution: REJECTED (MAC: 2019-07-18 09:32:08Z):. The mention of obsolete should be sufficient indication to set the cited field to 0.
         3. Ready for motion.
      5. CID 2248 (MAC):
         1. Review Comment
         2. Discussion: Agree with the comment.
         3. The second statement is probably just missing non-S1G.
         4. Proposed Resolution: REVISED (MAC: 2019-07-18 09:32:48Z):

Agree with the comment. The second statement is likely missing non-S1G.

At 1844.56 add "non-S1G" after "non-HT non-DMG".

* + - 1. Ready for motion.
    1. CID 2359 (MAC), 2394 (MAC):
       1. Reviewed comments. Same resolution for both of them, per detailed changes shown below.
       2. There are some changes proposed that go beyond what the commenter requested but are in the same direction. (The changes in (b), for example.)
       3. Discussion about all the possible cases, and how they map to these (reworded) bullets. It seems that all the cases are covered, and the CW update rules below the bullet list is handled correctly (with the new wording).
       4. But, case e) has the CW being “doubled”. Why is that, if we think it makes sense to continue the TXOP, shouldn’t we keep the same CW?
       5. Should the CW be left unchanged in case e)? But, similarly to e), the STA could do a PIFS recovery, so in effect, it could drop CW to result in a PIFS, so why not allow it to be anything at this point?
       6. Menzo thinks this is making no technical change, just clarifying what it already said.
       7. Menzo, Mark Rison and Mark Hamilton to work on this off-line. ACTION ITEM: Chair will also send a note to the WG reflector suggesting everyone review this.
    2. Out of time for this document, for this meeting. Will come back later.
  1. **Review Doc: 11-19-1045r0** – Assaf KASHER(Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1045-00-000m-lb236-dmg-beamtracking-cids.docx>
     2. CID 2071 (MAC), CID 2070 (MAC), CID 2066 (MAC):
        1. The straw poll was actually taken in TGay, not TGaz.
        2. Did TGay really mean to change DMG, or to make beamtracking mandatory in TGay? It was phrased to indicate it would apply to DMG, since otherwise it would just be a TGay submission – it was understood to be a change to take to REVmd.
        3. How do we make a DMG mechanism mandatory now; what about existing implementations? Currently (see Table 10-29 in D2.2), it is mandatory to perform BRP with Feedback=BS-FBCK, for both transmit and responding. So, the spec is self-contradictory with 9.4.2.127.4.
        4. Should we treat “beamforming not supported” as deprecated, in our usual method (propose to make it as such now while notifying the WG members to comment, and then publish as deprecated, to potentially be obsoleted/removed/etc., later).
        5. Should we send a liaison to Wi-Fi Alliance confirming that they view is consistent?
        6. As a general rule, we (REVmd) are very careful to not potentially make existing devices non-compliant. However, in this case, the beamtracking unsupported mode of operation is broken, because there is no clause 10 text to support it. So, we are trying to fix up broken spec text, and that is different from our usual removal of a feature that is possible to be compliant with.
        7. We just added the beamtracking unsupported feature in REVmc, for some reason. Do we now think it should be removed? Do we understand why that makes sense now, but REVmc thought the feature was important? Isn’t that a reason to go through the “deprecated” process?
        8. Maybe we need a joint discussion with REVmd experts and TGay experts, to understand the points above.
        9. No agreement about whether this makes existing implementations non-compliant, or if that risk is acceptable in this case. More feedback on that point is needed.
        10. ACTION ITEM #2: Edward AU will work with Dorothy STANLEY to arrange getting this feedback.
     3. CID 2063 (MAC):
        1. Reviewed the comment, and proposed resolution.
        2. Are these all the references to PHY header fields in clause 10? These are all the ones in subclause 10.43.7.
        3. Minor wording adjustment suggested. Assaf will post an r1.
        4. Incorporate the changes for CID 2063, in 11-19/1045r1.
        5. Proposed Resolution: REVISED (MAC: 2019-07-18 09:40:39Z): Incorporate the changes for CID 2063, in 11-19/1045r1 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1045-01-000m-lb236-dmg-beamtracking-cids.docx>).
        6. Ready for motion.
     4. CID 2064 (MAC):
        1. Reviewed proposed resolution.
        2. No objections. Incorporate the changes shown for CID 2063 in 11-19/1045r1.
        3. Proposed Resolution: REVISED (MAC: 2019-07-18 09:43:43Z): Incorporate the changes for CID 2064, in 11-19/1045r1 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1045-01-000m-lb236-dmg-beamtracking-cids.docx> ).
        4. Ready for motion.
     5. CID 2061 (MAC):
        1. Reviewed proposed resolution.
        2. No objections. Incorporate the changes shown for CID 2063 in 11-19/1045r1.
        3. Proposed Resolution: REVISED (MAC: 2019-07-18 09:43:04Z): Incorporate the changes for CID 2061, in 11-19/1045r1 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1045-01-000m-lb236-dmg-beamtracking-cids.docx> ).
        4. Ready for motion.
     6. CID 2060 (MAC):
        1. For comparisons, we should say “equal to” not “set to”. Suggest making that change throughout. (Two locations.)
        2. Can we take this opportunity to look through clause 10, and fix all the references to PHY header fields?
        3. Action ITEM #3: Assaf will take the action to look through clause 10, for other instances of PHY header field references, and bring this back.
     7. CID 2094 (MAC):
        1. There are at least two ways to choose the “correct” taps, at least one of which is expensive. Suggestion is to leave this as implementation-dependent.
        2. Slight modification of the wording of the added text. Suggest: Insert as a new 4th sentence in the paragraph at P1295.42: “Selection of which taps are sent is implementation dependent.”
        3. Proposed Resolution: REVISED (MAC: 2019-07-18 09:46:07Z): Insert as a new 4th sentence in the paragraph at P1295.42: “Selection of which taps are sent is implementation dependent.”
        4. No objection. Ready for motion.
     8. CID 2106 (MAC):
        1. Are there existing implementation issues with the new requirement that the FBCK-REQ field shall be set to 0?
        2. Would like more time to think about this off-line.
  2. **Reconvene tomorrow in AM2**.
  3. **Recessed 18:00 pm**

1. **802.11md (REVmd) Meetings – July 2019 IEEE 802 Wireless Interim – Vienna – Tuesday AM2 10:30-12:30** 
   1. **Called to order** at 1:31 pm by the chair, Dorothy STANLEY (HPE)
   2. **Review patent policy**
      1. No issues noted.
   3. **Thanks to Mike MONTEMORRO and Mark HAMILTON for taking care of the PM2 meeting yesterday.**
   4. **Review Agenda doc 11-19/960r5**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-05-000m-2019-july-tgmd-agenda.pptx>
      2. New slide added for Future telecons to capture presentations and topics we don’t have time for this week.
      3. Tuesday AM2

* 11-19-1195 – Menzo WENTINK (60 mins)
* CID 2004, 2007 – 11-19-405, 11-19-396 – Abhishek 2359
* (30 mins)
* 11-19-1173 – Dan Harkins (30 mins)
  + 1. No changes for today’s list.
  1. **Review doc 11-19/1195r3** Menzo WENTINK (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-03-000m-assorted-crs.docx>
     2. CID 2359 and 2394 (MAC)
        1. Review the comments
        2. Review the changes to the NOTE that are proposed.
        3. Proposed resolution for CID 2359 and 2394: Revised - make changes shown under CID 2394 in 11-19-1195-04-000m-assorted-crs.docx.

The changes clarify that there are three options when a non-initial transmission fails: PIFS recovery, intra-TXOP backoff, or wait for the TXNAV timer to expire.

In addition, the proposed changes remove a spurious reference to item f).

* + - 1. The resolution does not address the basic question of the CID, so we need address the specific question in addition to be there.
      2. Updated Proposed resolution for CID 2359: Revised - make changes shown under CID 2394 in 11-19-1195-04-000m-assorted-crs.docx.

There are three options defined in normative text, for PIFS recovery, intra-TXOP backoff and waiting for the TXNAV timer to expire. The Note ties these three together, with the changes included.

The changes clarify that there are three options when a non-initial transmission fails: PIFS recovery, intra-TXOP backoff, or wait for the TXNAV timer to expire.

In addition, the proposed changes remove a spurious reference to item f).

* + - 1. Updated Proposed resolution for CID 2394: Revised - make changes shown under CID 2394 in 11-19-1195-03-000m-assorted-crs.docx.

The changes clarify that there are three options when a non-initial transmission fails: PIFS recovery, intra-TXOP backoff, or wait for the TXNAV timer to expire.

In addition, the proposed changes remove a spurious reference to item f).

* + - 1. The group discussed the proposed change yesterday, and could not agree with that solution, this resolution had better consensus.
      2. Mark Ready for Motion
    1. CID 2424 and 2425 (MAC)
       1. Review comment
       2. No rationale for why a figure was needed was given.
       3. Proposed Resolution for CID 2424 and 2425: REJECTED (MAC: 2019-07-16 09:02:09Z): the figure is for illustration only. The rules are defined in 10.24.2.7 (Sharing an EDCA TXOP). The comment does not provide a rationale for why the extra figure is needed.
       4. No Objection – Mark Ready for Motion
    2. CID 2426 (MAC)
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (MAC: 2019-07-16 09:04:27Z)
       3. No Objection - Mark Ready for Motion
    3. CID 2429 (MAC)
       1. Review Comment
       2. The intent of the proposed change was acceptable, but the consequences of the changes needed to be addressed. The proposed resolution addresses those consequences.
       3. On Page 11, mark in yellow text that needs to be checked offline to ensure accuracy.
       4. Review the “dot11RobustAVStreamingIplemented is true” paragraph (page 12).
       5. Review changes proposed to 10.24.2.12.1
       6. More review may be needed.
    4. CID 2430 (MAC)
       1. Review Comment
       2. Proposed Resolution: REJECTED (MAC: 2019-07-16 09:23:03Z): The comment does not identify a technical issue, with LRC, SLRC, SRC or SSRC.
       3. No objection – Mark Ready for Motion
    5. CID 2432 (MAC)
       1. Review Comment.
       2. Review proposed changes.
       3. Proposed Resolution for CID 2432 (MAC): REVISED (MAC: 2019-07-16 09:28:23Z): Incorporate changes as shown in 11-19/1195r4 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx>), which adds a bullet in the direction suggested by the commenter and clarifies related text.
       4. No objection – Mark ready for Motion
    6. CID 2433 (MAC)
       1. Review Comment
       2. This is similar to CID 2432, but it contains more requested changes without sufficient detail to implement.
       3. Proposed Resolution for CID 2433 (MAC): REJECTED (MAC: 2019-07-16 09:31:45Z): The Comment does not provide sufficient detail to understand the changes that would satisfy the commenter.
       4. No Objection – Mark Ready for Motion
    7. CID 2434 (MAC)
       1. Review Comment
       2. Proposed Resolution: CID 2434 (MAC): REJECTED (MAC: 2019-07-16 09:34:15Z): The cited references are for DCF, which was not addressed when deleting the long retry counters for EDCA.
       3. No objection – Mark Ready for Motion.
  1. **Review doc 11-19/396r5** Abhishek PATIL (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0396-05-000m-resolution-for-cids-related-to-multiple-bssid.docx>
     2. CID 2013 (MAC)
        1. Review comment
        2. Review proposed changes
        3. Discussion on correcting the article usage on page 7.
        4. Proposed Resolution for CID 2013 (MAC): REVISED (MAC: 2019-07-16 09:37:47Z): Incorporate changes as shown in 11-19/0396r5 (<https://mentor.ieee.org/802.11/dcn/19/11-19-0396-05-000m-resolution-for-cids-related-to-multiple-bssid.docx>) for CID 2013.

The text in clause 11.2.3.15 is revised to clarify that the Address 1 field for TIM frame is set to broadcast address. Further changes were made to clarify that in a multiple BSSID set, only the TxBSSID transmits the TIM frame. Clause 9.3.3.1 is updated to clearly specify the values for Address 2 and Address 3 field in case where the AP’s BSS is a single BSSID or belongs to a multiple BSSID set. In addition, included reference to TIM frame for traffic indication.

* + - 1. No objection – Mark Ready for Motion
    1. Final 7 items noted in the End of document labelled Discussion:
       1. Review each of the 7 items and proposed changes.
       2. A separate motion will be prepared to incorporate page 9-13 For 11-19/396r5 for all 7 items.
  1. **Review Doc 11-19/0405r2** Abhishek PATIL (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0405-02-000m-resolution-for-cids-2004-2007.docx>
     2. CID 2004 (MAC)
        1. Review Comment.
        2. Review Proposed changes.
        3. A change to the proposed changes was made, so the resolution will have to point to R3.
        4. Discussion on not changing any MIB variable names. The global change was similar to a MIB name. There are 270 locations to make the name change.
        5. Proposed Resolution for CID 2004 (MAC): REVISED (MAC: 2019-07-16 09:56:25Z): Incorporate the changes shown in 11-19/0405r3 (https://mentor.ieee.org/802.11/dcn/19/11-19-0405-03-000m-resolution-for-cids-2004-2007.docx).

The subelement name is not changed. After extensive offline discussion, the spec text is updated to clarify that the term co-located BSSID applies to FTM context when carried in FTM frame and refers to BSSs that are co-located within the same physical device as the reporting STA when carried in Neighbor Report. In addition, the resolution provides instructions to the editor to have a consistent name (co-located) across the spec.

* + - 1. Request to add to Editor’s Style Guide exception list for co-located has a hyphen.
      2. Mark ready for Motion
    1. CID 2007 (MAC)
       1. Review comment
       2. Review proposed changes
       3. Proposed Resolution for CID 2007 (MAC): REVISED (MAC: 2019-07-16 09:56:25Z): Incorporate the changes shown in 11-19/0405r3 (<https://mentor.ieee.org/802.11/dcn/19/11-19-0405-03-000m-resolution-for-cids-2004-2007.docx>).

Agree with the comment. It is not clear that the Measurement Report element carries the Co-Located BSSID List subelement. The text in clause 9.4.5.19 is updated to clarify that the subelement is carried in measurement Report (sub)element of the Neighbor Report element.

* + - 1. No objection – Mark Ready for Motion
  1. **Review doc 11-19/1173 Dan Harkins (HPE)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1173-04-000m-pwe-in-constant-time.docx>
     2. **Abstract:** The countermeasures against side channel attack that SAE puts into the hunting and pecking loop is inefficient and fragile. Recent attacks—e.g. Dragonblood—underscore this problem. PWE should be discovered in a deterministic method which is computable in constant time without repetitive looping. Do to the minimal number of restrictions on curve type, an appealing way of hashing to an elliptic curve is the Shallue-Woestijne-Ulas (SWU) method. For FFC groups, the branching and looping has been removed in order to generate an FFC PWE directly
     3. Review submission
     4. Discussion on the use of the SWU algorithm being in constant time. The curves that are used are noted in the Note.
     5. Request that the note be changed to include more clarity to use constant time to determine the curve chosen.
     6. Discussion on if this is a security or optimization issue. This addresses the Dragonblood attack, so it is important.
     7. Discussion on why the ability to use the full SAE list of curves, but the curves must be of a specific set of curves for to make this work. (see note).
     8. Discussion on how to limit the downgrade of the SAE algorithm.
     9. Discussion on the effect of having or not having a loop, and if the “constant time” element is constant.
     10. Request to have this method voted on.
     11. Request to wait on a vote and get more review to be voted on in September.
     12. Dan will not be at the September interim, but offline work will be expected to allow consideration in September.
  2. **Recess 12:30pm**

1. **802.11md (REVmd) Meetings – July 2019 IEEE 802 Wireless Interim – Vienna – Tuesday PM1 13:30-15:30** 
   1. **Called to order** at 1:31 pm by the chair, Dorothy STANLEY (HPE)
   2. **Review patent policy**
      1. No issues noted.
   3. **Review Agenda doc 11-19/960r5**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-05-000m-2019-july-tgmd-agenda.pptx>
      2. No changes – no objection to continue with agenda
   4. **Motions:** 
      1. **Motion V1: Approve prior TGmd minutes**
         1. Approve the minutes of March and May meeting minutes:

* [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0251-00-000m-minutes-for-revmd-march-2019-vancouver.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0251-00-000m-minutes-for-revmd-march-2019-vancouver.docx)
* [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0911-00-000m-minutes-for-revmd-may-2019-atlanta.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0911-00-000m-minutes-for-revmd-may-2019-atlanta.docx)

Teleconference minutes:

* [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0975-06-000m-telecon-minutes-for-revmd-may-june.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0975-06-000m-telecon-minutes-for-revmd-may-june.docx)
* [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-1238-00-000m-telecon-minutes-for-revmd-july-11.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-1238-00-000m-telecon-minutes-for-revmd-july-11.docx)
  + - 1. Moved: Michael MONTEMURRO
      2. Seconded: Jon ROSDAHL
      3. **Result Motion V1: No objection – Unanimous – motion Passes**
    1. **Motion 119 – May meeting and telecon CIDs**
       1. Approve the comment resolutions in the

“Motion-EDITOR-N” in <https://mentor.ieee.org/802.11/dcn/19/11-19-0142-09-000m-revmd-wg-lb236-comments-for-editor-ad-hoc.xls>

“Motion MAC-AC” tab in <https://mentor.ieee.org/802.11/dcn/17/11-17-0927-43-000m-revmd-mac-comments.xls>

“PHY Motion F”, tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>

“GEN Motion Portland” , “GEN Motion Telecon” and “GEN Motion Telecon – July 11” tabs in <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-06-000m-revmd-lb236-gen-comments.xls>

and incorporate the indicated changes into the TGmd draft.

* + - 1. Moved: Jon Rosdahl
      2. Seconded: Michael MONTEMURRO
      3. **Result Motion #119: 10-0-1 Motion Passes**
    1. **Motion - Deferred– May CIDs - 2**
       1. Aprove the comment resolutions in the

“Motion CCA-ED”, tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>

and incorporate the indicated changes into the TGmd draft.

* + - 1. Discussion – There is a concern that this is not ready for Motion now. As it has not been motioned yet, we will wait for this one until Thursday.
    1. **Motion –Deferred - Telecon CIDs - 2**
       1. Approve the comment resolutions in the

“GEN Motion present” tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-06-000m-revmd-lb236-gen-comments.xls>

and incorporate the indicated changes into the TGmd draft.

* + - 1. Discussion – Request to wait until Thursday for this Motion also.
    1. **Motion #120– Additional PHY fixes**
       1. Incorporate the text changes indicated in the “Additional changes” section on page 7 of <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-02-000m-cids-2709-2710-2711.docx>
       2. Moved: Jouni MALINEN 2nd: Michael MONTEMURRO
       3. **Results Motion #120: No Objection – Unanimous Consent – Motion Passes**
    2. **Motion #121 – Additional Multiple BSSID fixes**
       1. Incorporate the text changes indicated on pages 9 through 13 of <https://mentor.ieee.org/802.11/dcn/19/11-19-0396-05-000m-resolution-for-cids-related-to-multiple-bssid.docx>
       2. Moved: 2nd: Edward AU
       3. **Results Motion #121**: No Objection – Unanimous Consent – Motion Passes
    3. Thursday we will have motion for the two skipped and a motion to cover the CIDs that we have processed Monday and Tuesday.
  1. **Request to think about an AdHoc face to face meeting the week of August 19th.**
     1. This topic will come up on Thursday
     2. Request to check schedules for opportunity.
  2. **Review doc 11-19/286r7 Roger MARKS (EthAirNet Associates, Huawei)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0286-07-000m-mac-address-policy-anqp-and-beacon-element.docx>
     2. Abstract: This contribution proposes the basis of a resolution to LB236 Comment 2685, suggesting an ANQP element providing information regarding the address types and address allocation mechanisms supported by the network. The contribution considers local address types specified in IEEE Std 802 (as amended by IEEE 802c) and the possibility of addresses assigned by an IEEE 802.1CQ Local Address Allocation Protocol (LAAP).

This contribution uses Draft P802.11REVmd/D2.0 as a baseline.

* + 1. CID 2685
       1. Review doc 11-19/1307r0
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1307-00-000m-illustrations-of-local-mac-address-policy-anqp-proposal.pptx>
          2. Abstract: This contribution provides figures intended to illustrate the proposal in “Local MAC Address Policy ANQP” (IEEE 802.11-19/0286r7).
          3. Review submission as an introduction and illustration of the topic.
          4. Discussion on the change of the proposal on slide 5 vs slide 6, and the fact that slide 5 has more restrictions.
          5. Discussion on which boxes they can or cannot use.
       2. This proposal is trying to allow more quadrants to be used, but there is still a restriction on the “red box” areas.
       3. Discussion on how to indicate the local administration. How to indicate the policy is present or not.
       4. Encouragement given for more offline discussion.
  1. **Review Doc 11-19/306r5 Mathew FISCHER (Broadcom)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0306-05-000m-temporary-limited-connection.docx>
     2. Abstract: Proposed language to create a mechanism in the BlockAck frame to signal a request by a receiver to Temporarily Limit the Connection
     3. Review submission history
        1. Review new updated additions
     4. Discussion
        1. Edit change requested for field names to not use acronym.
           1. Editorial Guidelines do not allow acronyms in the field names
        2. Discussion on 10.26.10a – Mitigation discussion on the “should” vs “shall”. There is no “shall” there.
        3. Discussion on the interference in a limited connection and the problem of spanning multiple TXOPs.
        4. Discussion on how Local interference is identified. The difference of the TLC vs IMR.
        5. More discussion will be done offline.
     5. Bring back again later.
  2. **Review doc 11-19/1189r1 Tomoko Adachi (Toshiba)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1189-01-000m-resolutions-to-comments-on-channel-center-frequency.docx>
     2. CID 2702 (MAC)
        1. Review comment
        2. Review proposed resolution: REVISED (MAC: 2019-07-16 12:34:00Z): Incorporate the changes in 11-19/1189r1 indicated for CID 2702, which makes the clarification requested.
        3. Mark Ready for Motion
        4. There may be some comments to adjust this resolution.
     3. CID 2703 (MAC)
        1. Review Comment
        2. Proposed Resolution: CID 2703 (MAC): REJECTED (MAC: 2019-07-16 12:37:00Z): Notes from 6 to 8 in Table 9-273 already covers what the comment says.
        3. This set of Notes may have been created with another comment, but we can provide more input on this before Thursday.
     4. **CID 2704 (MAC)**
        1. Review Comment
        2. Review proposed changes
        3. Discussion:
           1. Editor noted that we are not using the word “up to”. This would need to be changed.
           2. A Request to have time to review.
           3. The plan is to motion on Thursday.
           4. These CIDs will have a separate motion.
           5. The old way does not seem to be present in this resolution, so we may want to change the proposal as CID 2702 does restore the previous functionality.
           6. There was a critical need for the changes
           7. The legacy devices may not have complaint implementation that this would then break.
        4. There is concern that the change is not really required, but the current and new devices may add more confusion and does not fix anything.
        5. Request to move to September rather than Thursday.
        6. More work will be needed.
  3. **Review of CID 2343**
     1. This comment was assigned to Robert Stacy, and he is on sabbatical.
     2. We need someone else to address this CID.
     3. Assign to Youhan Kim
  4. **Review doc 11-19/551r7** Mark HAMILTON (Ruckus/ARRIS)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0551-06-000m-revmd-lb236-comments-assigned-to-hamilton.docx>
  5. CID 2480 (MAC)
     1. Review Comment
     2. Review Proposed changes
     3. The table is under ANA control, so we may need to check there.
     4. These missing elements should be in the table as reserved and should be marked reserved in the ANA table also.
     5. 77 in the ANA is used by 11w – AssociationComebackTime
     6. 227 is unused, “status available”
     7. Discussion on what the element ids are defined in the ANA database.
     8. The Standard and the ANA database may write different words for the different columns.
     9. The Allocation of 77 was used by 11w and then may have been used by 11r, but that needs to be fixed in either case.
     10. Discussion on the default status of the element ID, and we should have something in table 9.94 and should delete the sentence in 9.3.3 that says when the reserved ids are to be used.
     11. The ANA corrections need to be made offline and out of band.
     12. The CID should deal with the standard specially
     13. Proposed Resolution: Revised.

Add a row in the Element IDs table for entries 77 and 227, with “Element” column of “Reserved” and “Element ID extension”, “Extensible” and “Fragmentable” columns left blank.

Note to commenter, entries for 218 and 219 were added as a result of resolution for CID 2214.

* + 1. Mark Ready for Motion
    2. CID 2009 (MAC)
       1. Review Comment
       2. Review rationale for the rejection.
       3. Proposed Resolution: Rejected. The negative style of this subclause is necessary (even if harder to read) to create clear “shall” (or “shall not”) requirements, and not a “may” statement which is less clear about specific requirements. Further, listing specific rules for why the STA shall not respond, here, avoids any confusion with requirements elsewhere in the draft that have additional reasons that a STA shall not respond.
       4. Discussion there may be other reason to not make the change.
       5. No Objection – Mark Ready for Motion
    3. CID 2188 (MAC)
       1. Review Comment
       2. Review changes
       3. Discussion on the value of the existing or the new language and which was clearer.
       4. Proposed Resolution: Revised. Change “is to be sent” to “requests to be sent”
       5. No Objection - Mark Ready for Motion
    4. CID 2250 (MAC)
       1. Review Comment
       2. Do not need “just” in the resolution change.
       3. Proposed Resolution: Revised. Add to the start of the cited sentence, add, “If the reassociation is to the same AP (as described above), …”
       4. No Objection – Mark Ready for Motion
    5. CID 2252 (MAC)
       1. Review Comment
       2. Proposed Resolution: Accept
       3. No objection – Mark ready for Motion
  1. **Recess at 3:30pm**

1. **802.11md (REVmd) Meetings – July 2019 IEEE 802 Wireless Interim – Vienna – Thursday, 18 July, 2019, PM1 13:30-15:30** 
   1. **Called to order** at 1:31 pm by the chair, Dorothy STANLEY (HPE)
   2. **Review patent policy**
      1. No issues noted.
   3. **Review Agenda doc 11-19/960r6**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-06-000m-2019-july-tgmd-agenda.pptx>
      2. No changes/objections to continue with Agenda
   4. **Review Doc: 11-19-0848r0** – Jon ROSDAHL (Qualcomm)
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0838-00-000m-11-19-0838-00-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx>
      2. CID 2446 (GEN):
         1. Reviewed comment, and proposed resolution.
         2. We discussed this in May and decided to add the hyphen in these uses.
         3. Does the Style Guide have guidance on this scenario?
         4. We’ll come back to this, when we can consult with an Editor.
      3. CID 2645 (GEN):
         1. Reviewed comment, and proposed resolution.
         2. 11-19/0838r0 lists about 9 locations to fix, not changing the ones in Annex J, which are in programming code.
         3. Some of these are in the TKIP clause and should not be changed. (The ones on P2569 and P2570.)
         4. Proposed Resolution: Revised; Incorporate the proposed resolution changes for CID 2645 in doc 11-19/0838r1 <<https://mentor.ieee.org/802.11/dcn/19/11-19-0838-00-000m-11-19-0838-01-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx>> which addresses the commenters proposed changes and gives the explicit change instructions.
         5. No objections. Ready for motion.
      4. CID 2699 (GEN):
         1. Thanks to Tomo ADACHI for providing explicit changes.
         2. Reviewed those proposed changes.
         3. Rather than deleting entries in the PICS, we mark them as “Reserved”, so that the numbering doesn’t change on remaining items.
         4. Change the instructions for FT17 and FR17 to mark these as Reserved and clear the other cells on those rows.
         5. Proposed Resolution: REVISED (GEN: 2019-07-18 12:09:37Z) Incorporate the proposed resolution changes for CID 2699 in doc 11-19/0838r1 <<https://mentor.ieee.org/802.11/dcn/19/11-19-0838-01-000m-11-19-0838-01-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx>> which addresses the commenters proposed changes and gives the explicit change instructions.
         6. No objections. Mark ready for motion.
      5. CID 2446 (GEN):
         1. Return to this one.
         2. There is no Style Guide rule for this.
         3. We could choose whichever direction results in less changes. That would be to add the hyphen, in this case.
         4. Consider adding a new rule, or another exception to the existing hyphen rule in the Style Guide. We’ll let the Editors decide what to do in the Style Guide.
         5. No objection to the resolution, in the direction to add the hyphen.
         6. Proposed Resolution: REVISED (GEN: 2019-07-18 12:09:04Z) Incorporate the proposed resolution changes for CID 2446 in doc 11-19/0838r1 < <https://mentor.ieee.org/802.11/dcn/19/11-19-0838-01-000m-11-19-0838-01-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx> > which addresses the commenters proposed changes and gives the explicit change instructions.
         7. Ready for motion.
   5. **Consider comments on “GEN Discuss” tab** in GEN ad hoc resolution spreadsheet, 11-19/0449r7
      1. (<https://mentor.ieee.org/802.11/dcn/19/11-19-0449-07-000m-revmd-lb236-gen-comments.xls>).
      2. CID 2635 (GEN):
         1. Cleaned up the editing instructions to make sure they are clear.
         2. Proposed Resolution: Revised.

Change "Specifies the parameters within the Multi-band element that identify the local MAC entity." to "Specifies the parameters within the Multi-band element that identify and are supported by the local MAC entity."

Change "Specifies the parameters within the Multi-band element that are supported by the remote (peer) MAC entity." to "Specifies the parameters within the Multi-band element that identify and are supported by the remote (peer) MAC entity."

* + - 1. There are multiple locations with this text. Fix all of them.
      2. Added locations to the resolutions, in D2.3: p350.41, p362.14, p367.41, p381.22. And, for the second sentence: p350.46, p362.20, p367.46, p381.28.
      3. REVISED (GEN: 2019-07-18 12:17:00Z)

In D2.3, p350.41, p362.14, p367.41, and 381.22 - Change "Specifies the parameters within the Multi-band element that identify the local MAC entity."

to

"Specifies the parameters within the Multi-band element that identify and are supported by the local MAC entity."

In D2.3, p350.46, p362.20, p367.46 and 381.28 Change

"Specifies the parameters within the Multi-band element that are supported by the remote (peer) MAC entity."

To

"Specifies the parameters within the Multi-band element that identify and are supported by the remote (peer) MAC entity.

* + - 1. No objections. Mark Ready for motion.
    1. CID 2604 (GEN):
       1. We need a submission for these changes.
       2. Reject. Insufficient detail, unless we get a submission.
       3. Assign to Mark RISON
    2. CID 2536 (GEN):
       1. Do we need to be consistent, and make other changes in clause 8? At least the sentence at D2.3 p773.36, needs to say “member” to align with the new title of Table 8-5.
       2. It will take off-line work to find cases like this.
       3. We also need to pick a noun for these; is “member” the best choice” Maybe “entry” because these are from Table 8-5?
       4. Assign to Mark Rison to work off-line and bring back.
    3. CID 2273 (GEN):
       1. This is being worked by Edward and Mark Hamilton
       2. Assign to Edward. Mark HAMILTON has edited the figures and given them to Edward
  1. **Review Doc: 11-19-0856r5 – Mark RISON (Samsung)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-05-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>
     2. CID 2601 (PHY):
        1. Reviewed, again, the latest revised resolution.
        2. Also delete the two “valid”s (with “a” and with and “or” not an “a”) at P2953.30.
        3. At P2953.35, change “a valid signal” to “an ERP-OFDM or ERP-DSSS/CCK sync symbols”
        4. Proposed Resolution: Revised; In the table in 6.5.4.3 When generated (in the aCCATime row), in 17.3.10.6 CCA requirements, in 18.4.6 CCA performance, in 19.3.19.5.4 CCA sensitivity in 20 MHz, in 19.3.19.5.5 CCA sensitivity in 40 MHz (2x), in 20.4.4.2.2 CCA, in 20.5.4.2.2 CCA, in 24.4.4.2.2 CCA, in 24.5.4.2.2 CCA, 25.4.6.2.2 CCA, 25.5.7.2.2 CCA, 25.6.9.3.2 CCA: change “a valid” to “a” or “an”, as appropriate for the starting sound of the following word.

In 18.4.6, change "or valid" to "or". In 18.4.6, change “a valid ERP-OFDM signal or valid ERP-DSS/CCK sync symbols" to "a valid ERP-OFDM signal or valid ERP-DSS/CCK sync symbols"

* + - 1. No objections. Mark Ready for motion.
    1. CID 2316 (GEN):
       1. Still in progress.
    2. CID 2366 (GEN):
       1. This was discussed in about 2009 and agreed to have three classes of such “variables”.
       2. Suggestion is to consistently call the ‘local variable’ style, a “MAC variable”.
       3. Discussion about what to do with variables like aSlotTime and aCWmin, which are both a characteristic from the PHY, and a “local variable” being used within the MAC. Do we create a new name for the local variable, to disambiguate them, or try to make a general rule to tell the reader which one we mean in various contexts?
       4. Straw poll: Distinct names preferred: 6, overloaded same names: 0.
       5. What name to use? Suggesting MACSlotTime. Or macSlotTime. Prefer the second.
       6. Upon further review, there are many places to change in the MAC (~ 50-60). Maybe the overloading is better. Or, maybe change the PHY’s name, instead of the MAC’s name. It turns out there about the same number of MAC ones and PHY ones.
       7. There are also external references to the name (in implementations, documentation, research papers, etc.)
       8. Leaning toward some sort of sentence or NOTE to allow continuing to use the same name for these two. Mark Rison will work off-line.
       9. Put in the AdHoc Notes: GEN: 2019-07-18 13:29:24Z - Discussion on the "aSlotTime" vs "macSlotTime" or do we just make a note to point out the overloading. Straw poll to change name, then after a long discussion, we reverted to make a note.
  1. **Will reconvene in PM2.**
  2. **Recessed 15:30 pm**

1. **802.11md (REVmd) Meetings – July 2019 IEEE 802 Wireless Interim – Vienna – Thursday, 18 July 2019, PM2 16:00-18:00** 
   1. **Called to order** at 4:02pm by the chair, Dorothy STANLEY (HPE)
   2. **Review patent policy**
      1. No issues noted.
   3. **Review Agenda doc 11-19/960r7**
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-07-000m-2019-july-tgmd-agenda.pptx>
      2. No changes/objections to continue with Agenda
   4. **Motions:**
      1. **Motion 122 – May CIDs – 2**
         1. Approve the comment resolutions in the

“Motion CCA-ED”, tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>

and incorporate the indicated changes into the TGmd draft.

* + - 1. Moved: Menzo WENTINK 2nd: Stephen McCann
      2. **Results Motion #122: 13-0-2 Motion Passes**
    1. **Motion 123– July meeting CIDs**
       1. Approve the comment resolutions in the

“Motion MAC-AD” tab in <https://mentor.ieee.org/802.11/dcn/17/11-17-0927-44-000m-revmd-mac-comments.xls>, for CID 2432, changing the resolution. Text from “Incorporate changes as shown in 11-19/1195r4 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx> )” to “Incorporate changes as shown in 11-19/1195r4 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx> ) for CID 2432”

“PHY Motion G”, tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>

“GEN Motion Vienna” tab in <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-07-000m-revmd-lb236-gen-comments.xls>

and incorporate the indicated changes into the TGmd draft.

* + - 1. For CID 2432, need to fix the resolution:
         1. Updated Resolution: REVISED (MAC: 2019-07-16 09:28:23Z): Incorporate changes as shown in 11-19/1195r4 (<https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx> ) for CID 2432, which adds a bullet in the direction suggested by the commenter and clarifies related text.
      2. Moved: Mark Hamilton 2nd: Menzo WENTINK
      3. **Results Motion 123: 14-1-1 motion Passes**
    1. **Motion deferred – Vienna CIDs - 2**
       1. Approve the comment resolutions in the

“Motion MAC-Center-Freq” tab in <https://mentor.ieee.org/802.11/dcn/17/11-17-0927-44-000m-revmd-mac-comments.xls>

and incorporate the indicated changes into the TGmd draft.

* + - 1. Discussion: We think that the case could not happen, so we do not need to have this change added for something that cannot happen.
         1. Request for delay until September and handle with Neighbor report CID.
         2. CID 2702 assign to Menzo
    1. **Motion Deferred: GEN Motion Present** 
       1. There is an alternate proposal for this CID 2606 to be presented. Defer the motion for now.
  1. **Review doc 11-19/660r0**– Ganesh VENKATESAN (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0660-00-000m-resolution-to-cid-2115.docx>
     2. CID 2115 (MAC)
        1. Review Comment
        2. Review proposed changes
        3. The basic change is fix references to subfields to be called out properly.
        4. Discussion on the need for <2450 which was deleted.
        5. Discussion on the capability and setting the ASAP field.
        6. Discussion on the potential change that need more discussion offline.
     3. Bring back on a telecon later.
  2. **Announcement that doc 11-19/1173r8** – security document that addresses the Dragonblood issue has been posted and will be discussed on a later call.
  3. **Review doc 11-19/1258r0 Marc EMMELMANN (Self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1256-00-000m-suggested-comment-resolution-for-cid-2233-on-remmd-d2-0.docx>
     2. CID 2233 (MAC)
        1. Review Comment
        2. Review proposed changes
        3. Discussion on the change - do not use “may”
        4. No objection Mark Ready for Motion
        5. Question on AP-CSN List being an capitalized.
        6. Change to “AP-CSN list”
        7. Proposed Resolution: CID 2233 (MAC): REVISED (MAC: 2019-07-18 14:44:30Z): Convert the quoted sentence into a “note” after the paragraph, i.e. to:

“Note -- The AP might maintain the AP-CSN values in the AP-CSN list for a duration whose value is out of the scope of this standard.”

And do a global search (5 occurrences) for "AP-CSN List" and replace it with "AP-CSN list".

* + - 1. No Objection – Mark Ready for Motion
  1. **Review doc 11-19/125r0 Marc EMMELMANN (Self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1252-00-000m-suggested-comment-resolution-for-cid-2548-on-remmd-d2-0.docx>
     2. CID 2548 (MAC)
        1. Review comment
        2. Review discussion in submission justifying a rejection.
        3. Proposed Resolution: The sentence " The AP verifies that the extracted source MAC address is equal to the source MAC address of the (Re)Association frame. If these are different, the AP shall discard the FILS HLP Container element;" is required because of the following security reason. If the AP does not filter by the source address, a malicious non-AP STA can send fake frames to the network.
        4. Discussion on if the reject reason is appropriate or not.
        5. The previous resolution in CID 1543 should be used for an updated proposed resolution.
        6. Updated Resolution for CID 2548 (MAC): REJECTED (MAC: 2019-07-18 14:49:14Z): The FILS HLP Container element is reused in association responses, in which both the source and destination address fields are required and may not match the addresses of the AP or STA. Instead of defining another (new) element, the existing is reused (e.g. see D1.4 P 2461 L55).
        7. No Objection - Mark Ready for Motion
  2. **Review doc 11-19/1290r1 Marc EMMELMANN (Self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1290-00-000m-suggested-comment-resolution-for-cid-2623-and-2624-on-remmd-d2-0.docx>
     2. CID 2623 and CID 2624 (MAC)
        1. Review Comments
        2. Review discussion on the rational for the rejection.
        3. Proposed Resolution: The comment resolution committee discussed the comment and did not agree on an existing potential for confusion that requires a change to be made.

The same topic has been discussed as part of the resolution of a previously submitted comment (CID 1324) and the comment resolution committee stands to the outcome of the previous discussion.

* + - 1. Discussion about the use of “Shared Key”
      2. The CID 1324 resolution: REJECTED (PHY: 2018-04-12 15:14:38Z) The term “FILS Shared Key” is unambiguous.
      3. Suggestion of proposal for removing the clause would not be clear that it could be removed.
      4. The same reason from last time is sufficient for now, and if/when we get a submission to make a change, we can address it then.
      5. Proposed Resolution for CIDs 2623 (MAC) and 2524 (MAC): REJECTED (MAC: 2019-07-18 14:58:55Z): REJECTED (MAC: 2019-07-18 14:58:37Z): The term "FILS Shared Key authentication" and "Shared Key authentication" are well-defined in the Standard and are distinct and unambiguous.
      6. No objection - Mark Ready for Motion
  1. **Review doc 11-19/1289 Marc EMMELMANN (self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1289-00-000m-suggested-comment-resolution-for-cid-2651-on-remmd-d2-0.docx>
     2. CID 2651 (MAC)
        1. Review Comment
        2. Review rational for the reject resolution.
        3. Discussion on the paragraph to be deleted.
        4. Change FILS setup with FILS exchange.
        5. Discussion on the actual wording to use.
        6. Proposed resolution: REVISED (MAC: 2019-07-18 15:09:19Z): Replace the first sentence of the cited paragraph of 4.10.7 with the following two sentences:

A FILS authentication exchange results in a PMKSA, which can be cached. A FILS STA can benefit from such caching, as a FILS STA performing subsequent authentications can supply a list of PMK identifiers in its initial Authentication frame.

* + - 1. No objection – Mark Ready for Motion
  1. **Review doc 11-19/1249 Marc EMMELMANN (self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1249-00-000m-suggested-comment-resolution-for-cid-2423-on-remmd-d2-0.docx>
     2. CID 2423 (MAC)
        1. Review comment
        2. Discussion on removing the Vendor Specific element in the FILS area would be better as it is in the generic Action Frame rules.
        3. Decline to use the proposed reject, and
        4. Proposed Resolution: REVISED (MAC: 2019-07-18 15:24:03Z): Accept the proposed change. Also delete the Vendor Specific element row in Table 9-381.
        5. No objection – Mark Ready for Motion
  2. **Review doc 11-19/1278r0 Marc EMMELMANN (self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1278-00-000m-suggested-comment-resolution-for-cid-2247-and-2525-on-remmd-d2-0.docx>
     2. CID 2247 and 2525 (MAC)
        1. Review Comments
        2. The discussion in the submission was reviewed.
        3. Review the proposed changes.
        4. Proposed Resolution: REVISED

Delete "fast initial link setup category (FILSC)" definition in subclause 3.2.

In 3.2: add a DILS definition "differentiated initial link setup (DILS): A mechanism for restricting fast initial link setup (FILS) to certain categories of stations."

Delete FILSC acronym in subclause 3.4.

In 3.4 add the DILS acronym: “DILS -- differentiated initial link setup”

In 9.4.2.186, replace "FILS Type" field name with "DILS Fields Present" (4 occurrences, including the figure caption), and also in 11.46.5.3 (1 occurrence).

In 9.4.2.186: change "The Differentiated FILS Time field contains an unsigned integer that specifies the time duration for the validity of the MAC Address Filter field or the FILS User Priority field" to "The Differentiated FILS Time field contains an unsigned integer that specifies the time duration for the DILS restrictions (see 11.46.5.3)"

* + - 1. Discussion on changing the name “DILS Fields Present” to something else. Suggestion was to change to “DILS Flags”.
      2. Change “Differentiated FILS Time” to “DILS Duration”
      3. Updated Proposed Resolution: CID 2247 and 2525 (MAC): REVISED (MAC: 2019-07-18 15:28:26Z): Delete "fast initial link setup category (FILSC)" definition in subclause 3.2.

In 3.2: add a DILS definition "differentiated initial link setup (DILS): A mechanism for restricting fast initial link setup (FILS) to certain categories of stations."

Delete the FILSC acronym in subclause 3.4.

In 3.4 add the DILS acronym: "DILS -- differentiated initial link setup"

In 9.4.2.186, replace "FILSC Type" field name with "DILS Flags" (4 occurrences, including the figure caption), and also in 11.46.5.3 (1 occurrence).

In 9.4.2.186: change "The Differentiated FILS Time field contains an unsigned integer that specifies the time duration for the validity of the MAC Address Filter field or the FILS User Priority field" to "The DILS Duration field contains an unsigned integer that specifies the time duration for the DILS restrictions (see 11.46.5.3)"

Change "Differentiated FILS Time" to "DILS Duration", globally.

* + - 1. No objection Mark Ready for Motion
  1. **Review doc 11-19/1255r0 Marc EMMELMANN (self)**
     1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1255-00-000m-suggested-comment-resolution-for-cid-2652-on-remmd-d2-0.docx>
     2. CID 2652 (MAC)
        1. Review Comment
        2. Discussion on the adjective preceding AP/STA for each Amendment.
        3. Straw Poll: agree with the accept.
        4. Result of Straw Poll: 7-0-5
     3. Proposed resolution: CID 2652 (MAC): ACCEPTED (MAC: 2019-07-18 15:44:25Z)
     4. No objection – Mark Ready for Motion
  2. **Review the schedule for July to Sept.**
     1. About 170 comments left to resolve
     2. We seem to resolve about 5-10 comments per 2-hour block.
     3. Currently 60 have been marked as insufficient detail, and we expect to get some of those with resolution. So, we will need 16 two-hour sessions to complete the processing of the comments. We will get 6 at the Interim, so we need to find 10 more 2-hour slots.
     4. Face to face AdHoc is possible for the week of Aug 20-22.
        1. Currently we have proposals for Montreal or Toronto.
        2. Plan for Aug 20-21-22
        3. Teleconference will be allowed.
     5. Telecon schedule:
        1. Tuesday July 30, Aug 6, 27, Sept 3 at 3pm ET 2 Hours.
        2. Friday Aug 2, Aug 9, and Sept 6 - 10 am ET 2 hours
     6. Site selection – No objection to Toronto
        1. Michael MONTEMURRO to host at Blackberry
  3. **Adjourned 5:58pm**

**References:**

**Monday PM1:**

1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-03-000m-2019-july-tgmd-agenda.pptx>
3. <https://mentor.ieee.org/802.11/dcn/17/11-17-0920-18-000m-802-11revmd-editor-s-report.ppt>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-1034-02-000m-proposed-resolutions-for-11aj-related-comments-in-revmd-lb236.doc>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-1034-03-000m-proposed-resolutions-for-11aj-related-comments-in-revmd-lb236.doc>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-1136-01-000m-lb-236-additional-comment-resolutions.docx>
7. <https://mentor.ieee.org/802.11/dcn/19/11-19-0551-06-000m-revmd-lb236-comments-assigned-to-hamilton.docx>

**Monday PM2:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-04-000m-2019-july-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-02-000m-assorted-crs.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-1045-00-000m-lb236-dmg-beamtracking-cids.docx>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-1045-01-000m-lb236-dmg-beamtracking-cids.docx>

**Tuesday AM2:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-05-000m-2019-july-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-03-000m-assorted-crs.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0396-05-000m-resolution-for-cids-related-to-multiple-bssid.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0405-02-000m-resolution-for-cids-2004-2007.docx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0405-03-000m-resolution-for-cids-2004-2007.docx>
7. <https://mentor.ieee.org/802.11/dcn/19/11-19-1173-04-000m-pwe-in-constant-time.docx>

**Tuesday PM1:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-05-000m-2019-july-tgmd-agenda.pptx>
2. [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0251-00-000m-minutes-for-revmd-march-2019-vancouver.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0251-00-000m-minutes-for-revmd-march-2019-vancouver.docx)
3. [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0911-00-000m-minutes-for-revmd-may-2019-atlanta.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0911-00-000m-minutes-for-revmd-may-2019-atlanta.docx)
4. [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-0975-06-000m-telecon-minutes-for-revmd-may-june.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0975-06-000m-telecon-minutes-for-revmd-may-june.docx)
5. [https://](NULL)[mentor.ieee.org/802.11/dcn/19/11-19-1238-00-000m-telecon-minutes-for-revmd-july-11.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-1238-00-000m-telecon-minutes-for-revmd-july-11.docx)
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0142-09-000m-revmd-wg-lb236-comments-for-editor-ad-hoc.xls>
7. [mentor.ieee.org/802.11/dcn/17/11-17-0927-43-000m-revmd-mac-comments.xls](https://mentor.ieee.org/802.11/dcn/17/11-17-0927-43-000m-revmd-mac-comments.xls)
8. <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>
9. <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-06-000m-revmd-lb236-gen-comments.xls>
10. <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>
11. <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-06-000m-revmd-lb236-gen-comments.xls>
12. <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-02-000m-cids-2709-2710-2711.docx>
13. <https://mentor.ieee.org/802.11/dcn/19/11-19-0396-05-000m-resolution-for-cids-related-to-multiple-bssid.docx>
14. <https://mentor.ieee.org/802.11/dcn/19/11-19-0286-07-000m-mac-address-policy-anqp-and-beacon-element.docx>
15. <https://mentor.ieee.org/802.11/dcn/19/11-19-1307-00-000m-illustrations-of-local-mac-address-policy-anqp-proposal.pptx>
16. <https://mentor.ieee.org/802.11/dcn/19/11-19-0306-05-000m-temporary-limited-connection.docx>
17. <https://mentor.ieee.org/802.11/dcn/19/11-19-1189-01-000m-resolutions-to-comments-on-channel-center-frequency.docx>
18. <https://mentor.ieee.org/802.11/dcn/19/11-19-0551-06-000m-revmd-lb236-comments-assigned-to-hamilton.docx>

**Thursday PM1:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-06-000m-2019-july-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0838-00-000m-11-19-0838-00-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0838-00-000m-11-19-0838-01-000m-lb236-gen-adhoc-cid-2446-2645-2699.docx>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-07-000m-revmd-lb236-gen-comments.xls>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-05-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>

**Thursday PM2:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0960-07-000m-2019-july-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>
3. <https://mentor.ieee.org/802.11/dcn/17/11-17-0927-44-000m-revmd-mac-comments.xls>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-1195-04-000m-assorted-crs.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0156-09-000m-lb236-revmd-phy-sec-comments.xlsx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0449-07-000m-revmd-lb236-gen-comments.xls>
7. <https://mentor.ieee.org/802.11/dcn/17/11-17-0927-44-000m-revmd-mac-comments.xls>
8. <https://mentor.ieee.org/802.11/dcn/19/11-19-0660-00-000m-resolution-to-cid-2115.docx>
9. <https://mentor.ieee.org/802.11/dcn/19/11-19-1256-00-000m-suggested-comment-resolution-for-cid-2233-on-remmd-d2-0.docx>
10. <https://mentor.ieee.org/802.11/dcn/19/11-19-1252-00-000m-suggested-comment-resolution-for-cid-2548-on-remmd-d2-0.docx>
11. <https://mentor.ieee.org/802.11/dcn/19/11-19-1290-00-000m-suggested-comment-resolution-for-cid-2623-and-2624-on-remmd-d2-0.docx>
12. <https://mentor.ieee.org/802.11/dcn/19/11-19-1289-00-000m-suggested-comment-resolution-for-cid-2651-on-remmd-d2-0.docx>
13. <https://mentor.ieee.org/802.11/dcn/19/11-19-1249-00-000m-suggested-comment-resolution-for-cid-2423-on-remmd-d2-0.docx>
14. <https://mentor.ieee.org/802.11/dcn/19/11-19-1278-00-000m-suggested-comment-resolution-for-cid-2247-and-2525-on-remmd-d2-0.docx>
15. <https://mentor.ieee.org/802.11/dcn/19/11-19-1255-00-000m-suggested-comment-resolution-for-cid-2652-on-remmd-d2-0.docx>