IEEE P802.11  
Wireless LANs

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| Telecon Minutes for REVmd CRC- Feb 7 and 14 2020 | | | | |
| Date: 2020-02-14 | | | | |
| Author(s): | | | | |
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Abstract

TGmd will hold teleconferences before the March 2020 session: January 31, February 7, 14 and March 13th at 10am Eastern (2 hours) for the purpose of Initial SA ballot comment resolution and presentations. This File has the minutes for the February Telecons.

See the dial-in instructions in the calendar:

R0: February 07, 2020

R1: February 14, 2020

1. **IEEE 802.11md REVmd CRC Telecon February 7, 2020 10:00 – 12:00 ET**
   1. **Called to order** at 10:04 am by the TG Chair Dorothy STANLEY (HPE).
   2. **Attendance**:
      1. Dorothy STANLEY (HPE)
      2. Jon ROSDAHL (Qualcomm)
      3. Michael MONTEMURRO (Blackberry)
      4. Edward AU (Huawei)
      5. Emily QI (Intel)
      6. Joseph LEVY (Interdigital)
      7. Mark HAMILTON (Ruckus/CommScope)
      8. Menzo WENTINK (QUALCOMM)
      9. Mark RISON (SAMSUNG)
   3. **Review Patent Policy**
      1. No issues reported.
   4. **Review Participation Policies**
      1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   5. **Review Agenda:**

1.       Call to order, attendance, and patent policy

a.       **Patent Policy: Ways to inform IEEE:**

1. Cause an LOA to be submitted to the IEEE-SA ([patcom@ieee.org](mailto:patcom@ieee.org)); or
2. Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
3. Speak up now and respond to this Call for Potentially Essential Patents

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

b.      Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

c. Confirm attendance and location for the April adhoc.

2.       Editor report – Emily QI/Edward AU

3.       Comment resolution

1. **2020-02-07**
   1. Review doc 11-20-150r6 Menzo Wentink (Qualcomm)- 60 Mins
   2. Doc 11-20-282r0 - Michael MONTEMURRO (Blackberry) – 10 Mins
   3. GEN CIDs – Jon ROSDAHL – 40 mins

4. AOB

5. Adjourn

* + 1. No objection to the updated Agenda
    2. Note that the link in the Meeting announcement needs to point to Calendar as the WebEx meeting ids are unique per telecon.
  1. **Editor Report** Emily QI (Intel)
     1. Completed D3.1
     2. Thanks to the reviewers
     3. Word Version of D3.1 has been posted as well.
     4. 3 issues identified, but was out of scope of review, but Emily will bring a submission for later consideration.
  2. **Review doc 11-20-282r0** - Michael MONTEMURRO (Blackberry)
     1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0282-00-000m-sb1-revmd-phy-sec-comment-resolutions.docx>
     2. CID 4476 (PHY)
        1. Review Comment
        2. Review proposed change
        3. Proposed Resolution: Accept
        4. No objection – Mark Ready for Motion
     3. CID 4568 (PHY)
        1. Review Comment
        2. Review proposed change
        3. Proposed Resolution: Accept
        4. No objection – Mark Ready for Motion
  3. **Review doc 11-20/0150r6** Menzo WENTINK (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0150-06-000m-assorted-crs-revmd-draft-3-0.docx>
     2. CID 4001 (GEN)
        1. Review Comment
        2. Review history of discussion on CID proposals.
        3. Discussion:
           1. Should this be restricted to only Beacons, or should we include FILS discovery etc.?
           2. Long CCA wording may need a different description.
           3. It should be “medium busy”.
           4. Extended period – should it be quantified?
           5. Discussion on what the values should be used in the quantification.
           6. Discussion on the topic will need more work.
           7. Menzo to send to the reflector for more feedback.
           8. Plan to close during the AdHoc.
     3. CID 4002 (MAC)
        1. Review Comment
        2. Review Resolution that was previously prepared: (MAC: 2020-01-15 00:41:35Z)
        3. Review proposed update to the proposed resolution.
        4. Proposed Resolution: CID 4002 (MAC): REVISED (MAC: 2020-02-07 15:53:07Z) -

At 992.60 replace the paragraph (which continues on the next page) with the following two paragraphs:

"The Supported Rates and BSS Membership Selectors element specifies any combination of up to eight BSS membership selectors and rates in the OperationalRateSet parameter, as described in the MLME-JOIN.request and MLME-START.request primitives.

Each octet of the Supported Rates field describes a single supported rate or BSS membership selector (see Figure 9-147 (Supported Rates and BSS Membership Selectors element format))."

At 1007.45 delete:

"The Information field is encoded as 1 to 255 octets, where each octet describes a single supported rate or BSS membership selector (see Figure 9-171 (Extended Supported Rates and BSS Membership Selectors element format)).".

The deleted sentence at 1007.45 is a duplication of the definition of the Information field below, which is then called Extended Supported Rates field.

* + - 1. Updated the resolution – still ready for motion
    1. CID 4041
       1. Tomo is working on this CID.
    2. CID 4143
       1. Still being worked on
    3. CID 4144 and 4149
       1. Osama is working on
    4. CID 4153 (MAC)
       1. Still open
    5. CID 4264 (MAC)
       1. Assign to Mark RISON
    6. CID 4270 (PHY)
       1. Review Comment
       2. Discussion on the proposed changes
       3. Association does not maintain state, but Re-association does (should).
       4. "TDLS agreements" is explicitly in the list that is \_not\_ affected by reassocaition to the same AP. See 11.3.5.4.
       5. Proposed Resolution: REVISED (PHY: 2020-02-07 16:04:35Z) - "A TDLS Teardown frame with Reason Code LEAVING\_NETWORK\_DEAUTH shall be transmitted to all TDLS peer STAs (via the AP or via the direct path) prior to reassociation with a different AP, deauthentication, disassociation, or association."

to

"A TDLS Teardown frame with Reason Code LEAVING\_NETWORK\_DEAUTH shall be transmitted to all TDLS peer STAs (via the AP or via the direct path) prior to transmitting a Disassociation frame or a Deauthentication frame to the AP."

At 904.32, in the "Meaning" column, change

"Deauthenticated because sending STA is leaving (or has left) the IBSS or ESS"

to

"Deauthenticated because sending STA is leaving (or has left) the BSS"

* + - 1. No objection – Mark Ready for Motion
    1. CID 4271 (PHY)
       1. Review comment
       2. Review Proposed changes.
       3. Discussion on the MIB access methods
       4. Proposed resolution: REVISED (PHY: 2020-02-07 16:20:23Z) - Incorporate the changes in document 11-20/0150r7

<<https://mentor.ieee.org/802.11/dcn/20/11-20-0150-07-000m-assorted-crs-revmd-draft-3-0.docx> > under CID 4271 after "Changes:"

* + - 1. No objection – Mark Ready for Motion
    1. CID 4289 (PHY)
       1. Still open
    2. CID 4291 (PHY)
       1. Review Comment
       2. Need to update resolution to the CID.
       3. Discussion on the syntax of using the “()” around the “QOS”.
       4. More work is needed
  1. **Review GEN AdHoc comments** – Jon ROSDAHL (Qualcomm)
     1. CID 4783 (GEN)
        1. Emily QI will take an action to check whether a MIB variable name can be changed.
        2. There are other variables in the MIB where names can be changed.
        3. Wait for feedback from Emily
     2. CID 4539 (GEN)
        1. Review Comment
        2. Proposed Resolution: ACCEPTED (GEN: 2020-02-07 16:41:50Z)
        3. No objection – Mark Ready for Motion.
     3. CID 4514 (GEN)
        1. Review Comment
        2. Proposed Resolution: ACCEPTED (GEN: 2020-02-07 16:43:24Z).
        3. No objection – Mark Ready for Motion.
     4. CID 4475 (GEN)
        1. Review Comment
        2. Discussion:
           1. We try to minimize the use of hyphenation, but in some cases, it is required.
           2. The issue is that when the document is prepared and formatted, automatic hyphens are added at the end of lines.
           3. The issue is not technical or editorial with the draft. It’s a tool issue.
           4. The Editors do not how to resolve this.
           5. There could be a PDF viewer that would allow hyphened variables
        3. The comment does not propose a technical or editorial change to the document.
        4. Proposed Resolution: REJECTED. (GEN) REJECTED (GEN: 2020-02-07 16:54:57Z) It is not known how to resolve this request with the FrameMaker tool. This document will be professionally edited during publication. This request will be referred to the publication editor.
        5. No objection – Mark Ready for Motion.
     5. CID 4416 (GEN)
        1. Review comment
        2. Menzo WENTINK worked on a similar comment.
        3. Assign CID 4416 to Menzo.
     6. CID 4409 (GEN)
        1. Proposed Resolution: ACCEPTED (GEN: 2020-02-07 16:58:31Z)
        2. No objection – Mark Ready for Motion.
     7. Updated GEN Comment Spreadsheet 11-20/147r3 to be posted:
        1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0147-03-000m-sb1-revmd-gen-comments.xls>
  2. Confirmed April AdHoc is in Cambridge England – April 21-23, 2020.
     1. Mark RISON (Samsung) is host.
     2. Please send RSVP via email.
  3. February REVmd CRC AdHoc in Sunrise Fl – Feb 18-20, 2020
     1. Please Send Graham SMITH (Sr Technologies) RSVP via email.
  4. Adjourned 12:01 pm ET

1. **IEEE 802.11md REVmd CRC Telecon February 14, 2020 10:00 – 12:00 ET**
   1. **Called to order** at 10:03 am ET by the TG Chair Dorothy STANLEY (HPE).
   2. **Attendance**:
      1. Dorothy STANLEY (HPE)
      2. Jon ROSDAHL (Qualcomm)
      3. Michael MONTEMURRO (Blackberry)
      4. Edward AU (Huawei)
      5. Emily QI (Intel)
      6. Joseph LEVY (Interdigital)
      7. Mark HAMILTON (Ruckus/CommScope)
      8. Mark RISON (SAMSUNG)
      9. Yujin Noh (Newracom)
      10. Kazuyuki Sakoda (Sony)
      11. Osama ABOUL-MAGD (Huawei)
      12. Sean Coffee (Realtek)
   3. **Review Patent Policy**
      1. No issues reported.
   4. **Review Participation Policies**
      1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   5. **Review Agenda: 234r5**
      1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0234-05-000m-2020-jan-mar-teleconference-and-adhoc-agendas.docx>
      2. Comment resolution portion of agenda:
2. **2020-02-14**
   1. Kaz SAKODA - <https://mentor.ieee.org/802.11/dcn/20/11-20-0274-00-000m-suggested-resolution-to-mesh-comment.docx>
   2. Yujin NOH – 11-20-0244
   3. Emily QI – 11-20-0247
   4. Nehru BHANDARU - <https://mentor.ieee.org/802.11/dcn/20/11-20-0246>
      1. No objection to the proposed agenda
   5. **Editor Report -** Emily QI – (Intel)
      1. Nothing to report today.
   6. **Review doc 11-20/274r0** Kaz SAKODA (Sony)
      1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0274-00-000m-suggested-resolution-to-mesh-comment.docx>
      2. CID 4425 (PHY)
         1. Review Comment
         2. Review proposed changes
         3. Proposed resolution: REVISED (PHY: 2020-02-14 15:17:08Z) - Incorporate the changes under Proposed Resolution in document https://mentor.ieee.org/802.11/dcn/20/11-20-0274-00-000m-suggested-resolution-to-mesh-comment.docx which update the definition of input parameters r and e\_f.
         4. No objection – Mark Ready for Motion
   7. **Review doc 11-20/244r0** Yujin NOH (Newracom)
      1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0244-00-000m-resolutions-to-s1g-phy.docx>
      2. CID 4137 (PHY)
         1. Review Comment
         2. Review proposed changes
         3. Proposed resolution: Rejected. To be specific, the Reserved SIG Indication is used as one of criteria in PHY receive procedure whether the PHY shall issue the error condition PHY-RXEND.indication(FormatViolation) in different amendments (e.g. 11ac, 11ah and 11ax) when its reserved bit set to 0.

However, not to add the note - a proposed note is not necessary because 1) weak CRC4 is not a technical approach 2) when CRC8 is supported in 11ac, reserved bits are still setting to 1.

* + - 1. Discussion on the resolution text include information that this bit is always set to one.
      2. Updating the resolution to “the bits are set to one”
      3. Updated Resolution: REJECTED (PHY: 2020-02-14 15:27:30Z) - To be specific, the Reserved SIG Indication is used as one of criteria in PHY receive procedure whether the PHY shall issue the error condition PHY-RXEND.indication(FormatViolation) in different amendments (e.g. 11ac, 11ah and 11ax) when its reserved bit set to 0.

However, not to add the note - a proposed note is not necessary because 1) weak CRC4 is not a technical approach 2) when CRC8 is supported in 11ac, the bits are set to 1.

* + - 1. Mark Ready for Motion
    1. CID 4142 (PHY)
       1. Review comment
       2. Review proposed Resolution.
       3. Proposed resolution: REVISED (PHY: 2020-02-14 15:30:08Z) - N1MHz in Equation (23-64) needs to be replaced with N2MHz. N2MHz is the number of 2 MHz subchannels that are contained within the whole bandwidth of the current PPDU.

Typo %s are shown in several equations. It should be ~ such as D ̃.

The equations to be updated are below.

Equation (23-55), (23-56), (23-57), (23-59), (23-62) and (23-64).

As for Equation (23-59), there are two %s.

* + - 1. No objection – Mark Ready for Motion
    1. CID 4236 (PHY)
       1. Review comment
       2. Review proposed changes
       3. D3.0 - P3528.41 is the deletion paragraph
       4. Proposed Resolution: ACCEPTED (PHY: 2020-02-14 15:31:13Z)

NOTE to Editor: Delete the second instance of the duplicated text. The change is at 3528.41.

* + - 1. No objection – Mark Ready for Motion
    1. CID 4405 (PHY)
       1. Review comment
       2. Review discussion
       3. Discussion on the proposed option 2 change.
       4. The changes shown are minimalized to just the changes.
          1. SIG-1 no changes
          2. SIG-2 change to include Bit B0-B1-B4
          3. Change to field
          4. SIG-3 and SIG-4 changes to two cells
          5. SIG-5 and SIG-6 only change numbering
       5. The basic change is to change bit numbers
       6. Making the length field span the SIG-3 and S1G-4 span.
       7. The Number of the bit alignment was discussed.
       8. Editor asked for update for indicating the changes
       9. The next CID has some more table changes that can be included.
       10. It was noted that the LSB/MSB may need to be indicated to be clear in the description of the bits.
       11. We may need to have a length part 1 and length part 2 in the table that is not referenced, but there is a reference to a “length field” that is not defined that may need more review in the future.
       12. D3.0 p3390. Figure 23-16 - review the need of the figure.
       13. Discussion on if the figure or the text is needed. Lines 3-10 has text that is referring to the figure. We would need to change the text to reference to the table rather than the figure.
       14. Straw Poll
           1. Do we want to take Option 1 (reject) or Option 2 (make change)?
           2. Results: Option 1: 6 Option 2: 1 Abstain: 3
       15. Review Propose rejection reason.
       16. Need to add an explanation of the S1G\_1M to the first part.
       17. We have not reviewed Table 23-11 as extensively as Table 23-18.
       18. Proposed Resolution: REJECTED (PHY: 2020-02-14 16:02:09Z) - HT-SIG field, VHT-SIG field, HE-SIG field consist of two SIG symbols with resetting. (e.g. starting B0 in the 2nd SIG symbol).

SIG field in S1G\_1M PPDU is only one exception because one symbol contains only 6 bits (not 24 or 26 bits). Since Length field is 9 bits, it would be better to keep counting without resetting.

The exception for SIG\_1M PPDU is described at the beginning of clause 23.3.8.3.5.

* + - 1. Mark Ready for Motion
    1. CID 4452 (PHY)
       1. Review comment
       2. Review proposed changes
       3. Proposed resolution: REVISED (PHY: 2020-02-14 16:10:54Z) - Incorporate the changes in 11-20-0244r0 <<https://mentor.ieee.org/802.11/dcn/20/11-20-0244-00-000m-resolutions-to-s1g-phy.docx>> for CID 4452, which make changes in the direction proposed by the commenter.
       4. No objection – Mark ready for Motion
  1. **Review Doc 11-20-0247** Emily QI (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0247-01-000m-initial-sb-proposed-resolutions-for-bp-comments.doc>
     2. CID 4047 (MAC)
        1. Review comment
        2. Review discussion
        3. Review proposed changes.
        4. Proposed Resolution: Revised; At 2645.41 of D3.0 (12.6.23 Protection of Beacon frames), at a para as below:

“If an AP is not a member of a multiple BSSID set, the group management cipher suite that is used by the BSS to protect group addressed robust Management frames shall be used for the protection of Beacon frames. For Multiple BSSIDs, the group management cipher suite that is used by the BSS corresponding to the transmitted BSSID shall be used for the protection of Beacon frames.”.

* + - 1. Discussion on if there is a need for the statement addition is needed.
      2. Use a single sentence: “The group management cipher suit of the AP Transmitting a Beacon is used to protect Beacon frames.”
      3. Updated Proposed Resolution: REVISED (MAC: 2020-02-14 16:17:29Z): At 2645.41 of D3.0 (12.6.23 Protection of Beacon frames), add a para: "The group management cipher suite of the AP transmitting a Beacon is used to protect Beacon frames."
      4. No objection – Mark Ready for Motion
    1. CID 4049 (PHY)
       1. Review Comment
       2. Review proposed changes
       3. Discussion on what the table covers.
       4. Discussion on the details did not have consensus.
       5. More work will need to be done.
    2. CID 4046 (PHY)
       1. Review Comment
       2. Review discussion
       3. Discussion on the need to have a “shall use OCVC”.
       4. Discussion on the wording of “bit validation”.
       5. Discussion on where the “bit mismatch” shall disassociate.
       6. Discussion on “discard” (p2553.42) when a condition fails.
       7. Discussion on when we want to ignore, discard, not use Beacon.
       8. Notes: Location: change to 11.55. What happens if there is a mismatch (e.g. channel is wrong), ignore, discard, or what with the beacon. The non-AP STA shall disassociate with the AP when enough mismatching has occurred.
       9. Receiving a Beacon that doesn’t match the operating channel is a condition to consider.
       10. Need more discussion offline.
    3. CID 4165 (MAC)
       1. Review Comment
       2. Discussion on who uses S1G frames.
       3. Proposed resolution: CID 4165 (MAC): REJECTED (MAC: 2020-02-14 16:58:43Z): 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.
       4. If we get a submission to address this CID differently, then we can consider it then.
       5. Mark Ready for Motion
  1. **Review proposed Agenda** Times for next week.
     1. Travel safe wished to all
  2. **Adjourned 12:00pm ET**

**References:**

**February 7, 2020**

1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0234-03-000m-2020-jan-mar-teleconference-and-adhoc-agendas.docx>
2. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
3. <https://mentor.ieee.org/802.11/dcn/20/11-20-0282-00-000m-sb1-revmd-phy-sec-comment-resolutions.docx>
4. <https://mentor.ieee.org/802.11/dcn/20/11-20-0150-06-000m-assorted-crs-revmd-draft-3-0.docx>
5. <https://mentor.ieee.org/802.11/dcn/20/11-20-0150-07-000m-assorted-crs-revmd-draft-3-0.docx>
6. <https://mentor.ieee.org/802.11/dcn/20/11-20-0147-03-000m-sb1-revmd-gen-comments.xls>

**February 14, 2020**

1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0234-05-000m-2020-jan-mar-teleconference-and-adhoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/20/11-20-0274-00-000m-suggested-resolution-to-mesh-comment.docx>
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4. <https://mentor.ieee.org/802.11/dcn/20/11-20-0247-01-000m-initial-sb-proposed-resolutions-for-bp-comments.doc>