IEEE P802.11  
Wireless LANs

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| Telecon Minutes for REVme - June telecons | | | | |
| Date: 2021-07-15 | | | | |
| Author(s): | | | | |
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|  |  |  |  |  |

Abstract

REVme Telecon Minutes June 7 and 14 and 21, 2021:

R0: minutes for June 7, 14 and 21.

R1: corrected hyperlink in 1.9.3.6 – “r2”

Action items:

* + 1. ACTION ITEM #1: Stephen will update and bring back for approval on June 21. Also, will identify the CIDs that are addressed, and provide proposed resolutions.
       1. ACTIONI ITEM #2: Robert STACEY will come back with a suggestion to replace these figures with a Table.
       2. ACTION ITEM #3: Edward and Emily QI to discuss at the Editor’s meeting and suggest an update to the Style Guide on this topic.
       3. ACTION ITEM #4: All, Open call for volunteers willing to help with the task of redrawing the figures with the references.
       4. ACTION ITEM #5: Nehru to send email to Menzo WENTINK and Jouni MALINEN to review and confirm “adding a subclause to clarify RSNA policy selection for TDLS direct links” will not affect existing implementations.

1. **TGme (REVme) Telecon Monday June 7, 2021 at 10-12:00 ET**
   1. Called to Order at 10:04am ET by the TGme chair, Michael Montemurro (Huawei)
   2. Attendance:
      1. IMAT Reported:

|  |  |
| --- | --- |
| Name | Affiliation |
| 1. Bhandaru, Nehru | Broadcom Corporation |
| 1. Coffey, John | Realtek Semiconductor Corp. |
| 1. Hamilton, Mark | Ruckus/CommScope |
| 1. Henry, Jerome | Cisco Systems, Inc. |
| 1. Kim, Youhan | Qualcomm Incorporated |
| 1. Kwon, Young Hoon | NXP Semiconductors |
| 1. Levy, Joseph | InterDigital, Inc. |
| 1. McCann, Stephen | Huawei Technologies Co., Ltd |
| 1. NANDAGOPALAN, SAI SHANKAR | Infineon Technologies |
| 1. Patwardhan, Gaurav | Hewlett Packard Enterprise |
| 1. RISON, Mark | Samsung Cambridge Solution Centre |
| 1. Smith, Graham | SR Technologies |
| 1. Stacey, Robert | Intel Corporation |
| 1. Sun, Bo | ZTE Corporation |
| 1. Wentink, Menzo | Qualcomm Incorporated |

* + 1. In addition to IMAT:
       1. Mike Montemurro (Huawei)
       2. Edward Au (Huawei)
       3. Ming Gan (Huawei)
       4. Dibakar Das (Intel)
       5. Yonggang Fang (MediaTek)
       6. Al Petrick (InterDigital)
       7. Rui Yang (InterDigital)
       8. Kurt Lumbatis (CommScope)
       9. Graham Smith (SRT)
  1. Patent policies read and referenced.
  2. Attendance reminder
  3. Review Agenda – 11-21/883r2:
     1. [https://mentor.ieee.org/802.11/dcn/21/11-21-0883-02-000m-may-july-teleconference-agenda.docx](https://mentor.ieee.org/802.11/dcn/21/11-21-0883-02-000m-may-july-teleconference-agenda.docx )
     2. Proposed Agenda July 7:

**The draft agenda for July 7 teleconference:**

1 Call to order, attendance (<https://imat.ieee.org/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. Patent, Participation and policy related slides: See slides 4-19 in <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>

2. Editor report – Emily QI/Edward AU –

3. Comment resolutions:

1. HS 2.0 ANQP communication – Document 11-21/879 – Stephen MCCANN (Huawei)
2. Document 11-21/769 – Emily QI (Intel) – Editor CIDs
3. Documents 11-21/730, 11-21/803 – Edward AU(Huawei) – Editor2 CIDs
4. Document 11-21/809 – Nehru BHANDARU (Broadcom) – Security CIDs

4. AOB

5. Adjourn

* + 1. Agenda approval
       1. Agreed to remove 11-21/769, as Emily will not be on the call
    2. Approved updated agenda by unanimous consent
  1. **Editor’s report** (Edward AU):
     1. TGax is being rolled into the draft.
     2. Intention is to have REVme 0.1, including TGax, by the July plenary.
  2. **Review Doc 11-21/0879r1**: Stephen MCCANN (Huawei), Jerome HENRY (Cisco)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0879-01-000m-discussion-about-wfa-hotspot-marketing-re-anqp.docx> ()
     2. WG11 received Liaison doc 11-21/787r0
        1. (<https://mentor.ieee.org/802.11/dcn/21/11-21-0787-00-0000-communication-from-wfa-hotspot-marketing-tg-re-anqp.docx>)
     3. Liaison from Wi-Fi Alliance about ANQP, requesting some clarification work be done in the 802.11 draft. This document addresses each question, with a potential solution suggestion. Thanks to Mark RISON for his help/co-authorship.
        1. Question 1)
           1. No comments
        2. Question 2)
           1. The first sentence of the cited paragraph in the Potential Solution is confusing, and we could clarify this, as well.
           2. Query List ANQP-element response is not defined or used anywhere else. Could reword that phrase.
        3. Question 3)
           1. Change “AP uses” to “AP shall use”
        4. Question 4)
           1. Two options to address this: restate/clarify the existing rules (the non-AP STA may interpret ANQP-elements in any order) or add a new definition of an order.
           2. Adding an order is likely to be contrary to many existing implementations.
           3. Wi-Fi Alliance asked how to interpret elements that have overlapping semantics. Add a sentence that this is implementation dependent.
        5. Question 5)
           1. Triggered discussion to simplify the response to Question 2, to remove the two negatives. Agreed we need the two negatives to make this a restrictive recommendation.
           2. To answer the question, we can include a reference to the language that says the GAP response can only carry one advertisement protocol.
     4. ACTION ITEM #1: Stephen will update and bring back for approval on June 21. Also, will identify the CIDs that are addressed, and provide proposed resolutions.
  3. **Review doc 11-21/0730r2** (Edward AU):
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0730-02-000m-proposed-resolution-for-revme-cc35-comments.docx>
     2. CID 319 (ED2):
        1. Reviewed Comment
        2. Found additional locations.
        3. Agree with the proposed change but there are 14, rather than 12, locations in D0.0.
        4. Proposed Resolution: REVISED (ED2: 2021-06-07 15:37:37Z) Agree with the proposed change but there are 14, rather than 12, locations in D0.0.

Please replace “an SIFS” with “a SIFS” at the following 14 locations in D0.0:

1920.15, 1920.23, 1921.23, 1921.26, 1922.8, 1922.10, 1922.11, 1922.15, 1922.21, 1922.23, 1922.27, 3464.16, 3464.26, 3479.47.

* + - 1. No objection – Mark Ready for motion
    1. CID 298 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:38:58Z) Note to the Editors at the following 5 locations in D0.0: 2580.5, 2677.54, 2679.40, 2681.2, 2682.5. At 2677.54, please also insert a space before 800.
       3. No objection – Mark Ready for motion
    2. CID 330 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:39:30Z).
       3. No objection – Mark Ready for motion
    3. CID 297 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:40:20Z)

Note to the Editors at the following 6 locations in D0.0: 2291.57, 2292.10 (Figure 11-29), 2293.4, 2293.12, 3801.38, 3801.39.

* + - 1. No objection – Mark Ready for motion
    1. CID 338 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:40:55Z)

Note to the Editors at the following 2 locations in D0.0:1477.1, 2399.55.

* + - 1. No objection – Mark Ready for motion
    1. CID 320 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:41:19Z)

Note to the Editors at the following 8 locations in D0.0: 792.20, 1680.16, 1715.25, 1716.47, 3445.22, 3464.16, 3464.27, 3479.47.

* + - 1. No objection – Mark Ready for motion
    1. CID 388 (ED2):
       1. Reviewed Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:41:47Z)
       3. No objection – Mark Ready for motion
    2. CID 264 (ED2):
       1. Review Comment
       2. Editors talk to IEEE SA Staff. There is no way to overlay something with xrefs that will automatically update.
       3. Seeking volunteers who are willing to work on making the changes to move xrefs from within figures, to be in the text instead.
       4. Noted that 11ax editor tried to do this in that amendment.
       5. This will particularly difficult to do, and keep the purpose of the Figure, for Figures like 21-3, which are intended to be a cross-reference.
       6. ACTIONI ITEM #2: Robert STACEY will come back with a suggestion to replace these figures with a Table.
       7. ACTION ITEM #3: Edward and Emily QI to discuss at the Editor’s meeting and suggest an update to the Style Guide on this topic.
       8. One option is to put a NOTE immediately after the Figure. Could do that, or update body text, case-by-case.
       9. Not sure we should remove all the references, especially in flow diagrams.
       10. We’ll consider case-by-case; there really is no “default” action.
       11. ACTION ITEM #4: All, Open call for volunteers willing to help with the task of redrawing the figures with the references.
       12. Note that the Editors are busy with the 11ax roll-in, so they will not put effort into this comment, themselves.
    3. CID 306 (ED2):
       1. Review Comment
       2. Edward checked the existing uses, mostly have “non-AP” (etc) come first.
       3. Proposed Resolution: REVISED (ED2: 2021-06-07 15:42:12Z)

Replace “S1G non-AP STA” with “non-AP S1G STA” at the following 19 locations in D0.0: 189.26, 1732.29, 1732.35, 1850.54, 2069.45, 2070.9, 2105.29, 2152.32, 2152.36, 2152.40, 2152.43, 2152.47, 2152.51, 2152.56, 2152.59, 2240.2, 2362.36, 3291.41, 3423.9.

Replace “non-S1G non-AP STA” with “non-AP non-S1G STA” at the following location in D0.0: 2362.45.

* + - 1. No objection – Mark Ready for Motion.
    1. CID 470 (ED2):
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:42:32Z).
       3. No objection – Mark Ready for Motion.
    2. CID 300 (ED2):
       1. Review Comment
       2. Found an additional location and added specific locations.
       3. Proposed resolution: REVISED (ED2: 2021-06-07 15:42:58Z)

Replace “Transmitter Address” with “transmitter address” at the following locations in D0.0: 229.62, 229.63, 2776.46, 3907.18.

Replace “Receiver Address” with “receiver address” at the following locations in D0.0: 2267.56, 2776.47.

* + - 1. No objection – Mark Ready for Motion.
    1. CID 280 (ED2):
       1. Review Comment
       2. Proposed change to make 1919.21 consistent with 1931.1.
       3. Also add a “the” before “basic rate”; add “rate set” after “basic rate”.
       4. Disagree. The term is “basic HT-MCS Set”.
       5. HT does not need the potentially plural expected frame or feedback response.
       6. Proposed Resolution: Revised.

At 1919.21 in D0.0, replace

“An HT beamformer may use the following worst-case parameters to estimate the duration of the expected frame that contains the feedback response: lowest rate in basic HT-MCS set, HT-mixed format, no grouping.”

with

“An HT beamformer may use the worst case parameters to estimate the duration of the expected frame that contains the feedback response, such as the lowest rate in the basic rate set, HT-MCS set, HT-mixed format, and no grouping.”

* + - 1. Move to MAC, to discuss the “basic rate set” addition.
      2. Action: ED2: 2021-06-07 15:43:23Z - Transfer to MAC and assign to Mark Rison.
    1. CID 327 (ED2):
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (ED2: 2021-06-07 15:44:22Z).
       3. No objection – Mark Ready for Motion.
  1. **Review Doc: 11-21/0809r1** (Nehru BHANDARU):
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-01-000m-cc35-crs-a.docx>
     2. CID 163 (SEC):
        1. Review Comment
        2. Generally, agree with the commenter. Provided detailed changes.
        3. Some additional editorial changes from off-line comments.
        4. Proposed Resolution: REVISED

- Agree with the commentor. TKIP does not support MPDU aggregation.

TGm editor: Please make changes as described in 11-21/0809r2 for CID 163: <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-02-000m-cc35-crs-a.docx>

* + - 1. No objection – Mark Ready for Motion.
    1. CID 215 (SEC):
       1. Review Comment
       2. Generally, agree with the commenter.
       3. Added a few additional similar changes.
       4. There is no such field as GCM/CCM Nonce.
       5. Updated resolution to remove “field” and change “Nonce Flags subfield” to “Nonce Flags field”.
       6. Proposed Resolution: REVISED (SEC: 2021-06-07 18:04:39Z)

- Agree in principle with the commentor. In addition, there is usage of “Nonce Flags” in the §12.5.3.3.4 (CCM) that also merits a similar change.

TGm editor: Pease make changes as described in 11-21/0809/r2 for CID215:

<https://mentor.ieee.org/802.11/dcn/21/11-21-0809-02-000m-cc35-crs-a.docx>

* + - 1. No objection – Mark Ready for Motion.
    1. CID 199 (SEC):
       1. Review Comment
       2. Proposed change is to add a subclause to clarify RSNA policy selection for TDLS direct links.
       3. ACTION ITEM #5: Nehru to send email to Menzo WENTINK and Jouni MALINEN to review and confirm “adding a subclause to clarify RSNA policy selection for TDLS direct links” will not affect existing implementations.
       4. Will continue discussion off-line.
    2. CID 360 (SEC):
       1. Review Comment
       2. Had off-line discussion on this.
       3. What happened to the discussion that we do not modify the actual frame contents, only the value used for the AAD?
       4. There was a suggestion to define a phrase “masked out”, to make it clear we are modifying a temporary copy, not the actual field.
       5. More work needed.
  1. **Adjourned at 12:00**

1. **TGme (REVme) Telecon Monday June 14th, 2021 at 10-12:00 ET**
   1. Called to Order at 10:04am ET by the TGme chair, Michael Montemurro (Huawei)
   2. Attendance:
      1. IMAT Reported:

|  |  |
| --- | --- |
| Name | Affiliation |
| 1. Aboulmagd, Osama | Huawei Technologies Co., Ltd |
| 1. Au, Kwok Shum | Huawei Technologies Co., Ltd |
| 1. Bhandaru, Nehru | Broadcom Corporation |
| 1. Das, Subir | Perspecta Labs Inc |
| 1. Derham, Thomas | Broadcom Corporation |
| 1. Ghaderipoor, Alireza | MediaTek Inc. |
| 1. Hamilton, Mark | Ruckus/CommScope |
| 1. Harkins, Daniel | Aruba Networks, Inc. |
| 1. Hart, Brian | Cisco Systems, Inc. |
| 1. Henry, Jerome | Cisco Systems, Inc. |
| 1. Kakani, Naveen | Qualcomm Incorporated |
| 1. Kim, Youhan | Qualcomm Incorporated |
| 1. Kwon, Young Hoon | NXP Semiconductors |
| 1. Malinen, Jouni | Qualcomm Incorporated |
| 1. McCann, Stephen | Huawei Technologies Co., Ltd |
| 1. Montemurro, Michael | Huawei Technologies Co., Ltd |
| 1. Petrick, Albert | Jones-Petrick and Associates, LLC. |
| 1. Qi, Emily | Intel Corporation |
| 1. RISON, Mark | Samsung Cambridge Solution Centre |
| 1. Rosdahl, Jon | Qualcomm Technologies, Inc. |
| 1. Smith, Graham | SR Technologies |
| 1. Stacey, Robert | Intel Corporation |
| 1. Van Zelst, Allert | Qualcomm Incorporated |
| 1. Wentink, Menzo | Qualcomm Incorporated |

* 1. Patent policies read and referenced.
  2. Attendance reminder
  3. Review Agenda – 11-21/883r4:
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0883-04-000m-may-july-teleconference-agenda.docx>
     2. Proposed Agenda July 14:

**The draft agenda for July14 teleconference:**

1 Call to order, attendance (<https://imat.ieee.org/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. Patent, Participation and policy related slides: See slides 4-19 in <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>

2. Editor report – Emily QI/Edward AU –

3. Comment resolutions:

c) Monday June 14, 2021

1.Motions (document 11-21/758r2)

a. Editor-1 comments

b. GEN-SEC-MAC comments

2. Comment resolution

a. Document 11-21/871 – Dan (HPE) – Rejected Groups in SAE

b. Document 11-21/985 – Brian (Cisco)

c. Document 11-21/822 – Youhan (Qualcomm) – CC35 Delta SNR Comments

d. Document 11-21/823 – Youhan (Qualcomm) – CC35 PHY Comments

4. AOB

5. Adjourn

* + - 1. No objection to the agenda
  1. **Editor Report –** Emily QI (Intel)
     1. We have implemented the CIDs approved.
     2. Expect to have the roll-in of 11ax by the plenary meeting.
  2. **Motions:** 
     1. **Motion #2 – EDITOR1 CIDs (2021-06-14)**
        1. Approve the comment resolutions in the

“Motion-EDITOR1-B” tab (4 CIDs) in 11-21/738r3: <https://mentor.ieee.org/802.11/dcn/21/11-21-0738-03-000m-revme-wg-cc35-editor1-ad-hoc-comments.xlsx>

and incorporate the text changes into the TGme draft.

* + - 1. Moved: Emily QI
      2. 2nd Stephen McCann
      3. **Results Motion #2:** Unanimous Consent.
    1. **Motion #3 –GEN, SEC, MAC CIDs (2021-06-14)**
       1. Approve the comment resolutions in the

“GEN May Motion 1” tab (16 CIDs) in 11-21/699r5: <<https://mentor.ieee.org/802.11/dcn/21/11-21-0699-05-000m-gen-adhoc-revme-cc35-comments.xls>> except CIDs 72, 73, 74, 75, 76, 77, 80 598, 599 and 600.

“Security Motion A” tab (13 CIDs) in 11-21/690r2: <<https://mentor.ieee.org/802.11/dcn/21/11-21-0690-02-000m-revme-cc35-sec-comments.xlsx>> except CID 589.

“Motion MAC-AA” tab (6 CIDs) in <https://mentor.ieee.org/802.11/dcn/21/11-21-0793-01-000m-revme-mac-comments.xls> except 596.

and incorporate the text changes into the TGme draft.

* + - 1. Moved: Jon Rosdahl
      2. Second: Stephen McCann
      3. **Results Motion #3: Unanimous Consent**
    1. **Motion #4: - 6 GHz regulatory CIDs (2021-06-14)**
       1. Approve the comment resolutions in 11-21/790r6:

<<https://mentor.ieee.org/802.11/dcn/21/11-21-0790-06-000m-revme-cc35-6ghz-comments.docx>> (4 CIDs – 596 (MAC), 598, 599, 600 (GEN))

and incorporate the text changes into the TGme draft.

* + - 1. Moved: Youhan KIM
      2. 2nd: Brian Hart
      3. Discussion:
         1. **Concern expressed on some of the terms of “standard Power”**
         2. Terms Standard Power AP is not introduced in this doc, it was introduced in 11ax-2021 amendment.
         3. Use of this term is used outside the FCC and in other regulatory bodies.
         4. A previous Strawpoll support the terminology in this revision.
         5. **Results Motion #4: 17/2/1 Motion Passes (tentative)**
    1. **Motion #5 – CID 589 (2021-06-14)**
       1. Approve the comment resolution for CID 589 in

“Security Motion A” tab in 11-21/690r2: <<https://mentor.ieee.org/802.11/dcn/21/11-21-0690-02-000m-revme-cc35-sec-comments.xlsx>>

* + - 1. Moved: Dan Harkins
      2. Second: Stephen McCann
      3. Discussion:
         1. Comment was assigned to Mark RISON, so he would like to present his alternative resolution.
         2. Review current resolution.
      4. **Results Motion #5:** 15/1/5 Motion Passes (Tentative)
  1. **Discussion policy WebEx identification:**
     1. Use of name and affiliation in WebEx sign on.
     2. It is preferred that you follow the format of [x] name (Affiliation)
        1. where x = voting status {V/NV}.
  2. **Review doc 11-21/0871r1** – **Rejected Groups in SAE** - Dan Harkins (HPE)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0871-01-000m-rejected-groups-in-sae.docx>
     2. No CID associated this, but presents some changes
     3. Review submission.
     4. Discussion on if this would cause issues with legacy devices.
     5. Suggestion to remove “Each rejected group shall be represented as an unsigned 16-bit integer using the bit ordering conventions of 9.2.2”
        1. Argument for leaving as is was given as it was in the existing document, and not part of the changes suggested in this submission.
     6. Discussion on response to rejection in the SAE session.
     7. Note that more comments were submitted via the reflector.
     8. This is an interoperable issue, and we should be careful in how to clarify to ensure implementations are able to follow the process.
     9. Duplicative information in Clause 12 are there for specific reasons to help the implementors. This helpful information that may otherwise be difficult to find.
     10. An Updated version of the submission may be made and a motion to be crafted for the July Plenary.
  3. **Review Doc 11-21/965r1** CC35 PHY CIDs 19 18 14 15 527 – Brian Hart (CISCO)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0965-00-000m-cc35-phy-cids-19-18-14-15-527.docx>
     2. CID 19 (PHY)
        1. Review Comment
        2. Review submission discussion
        3. Discussion on the parser operation.
        4. C: Prefer no change, due to common usage. But, in the standard we don’t need to explain that detail, delete the last sentence of the proposed NOTE(s).
        5. C: Would like to keep the first half of that last sentence.
        6. C: Agreed on direction to keep the first half of the last sentence.
        7. Updated resolution, so a new version will be upload as r1.
        8. CID 19 Proposed Resolution: Revised. Incorporate the changes in 11-21/965r1 for CID 19:

<<https://mentor.ieee.org/802.11/dcn/21/11-21-0965-01-000m-cc35-phy-cids-19-18-14-15-527.docx>>

* + - 1. Mark Ready for Motion
    1. CID 18 (PHY)
       1. Review Comment
       2. Review submission discussion.
       3. Discussion on the notion of the use of CID 19 Option B for this CID.
       4. Discussion on what SIG Field Processing definition from process described.
       5. Discussion on the use of reserved bits.
       6. Discussion on SIGNAL field and abort is needed.
       7. Note on the use of Reserved bits should be well noted within the standard, and not reference external historic possible uses.
       8. More work needed - Discussion to continue the reflector.
    2. Out of time for rest of document – start discussion the on the remainder on the reflector and bring back later.
  1. **Review doc 11-21/822r2** – Delta SNR Comments - Youhan KIM (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0822-01-000m-cc35-delta-snr-comments.docx>
     2. CID 176 and 601 (MAC)
        1. Review Comment
        2. Review submission discussion
        3. Discussion on the way the range was described, and the wording is not changed, but moved to a different location.
        4. Proposed Resolution: CIDs 176 and 601: REVISED (MAC: 2021-06-14 15:36:31Z): Incorporate the changes shown in 11-21/0822r1 (<https://mentor.ieee.org/802.11/dcn/21/11-21-0822-02-000m-cc35-delta-snr-comments.docx>).
        5. No Objection - Mark ready for Motion
  2. **Review doc 11-21/0823r1** – PHY Comments- Youhan KIM (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0823-01-000m-cc35-phy-comments.docx>
     2. CID 17 (PHY)
        1. Review Comment
        2. Review Submission Discussion
        3. Review proposed resolution changes
        4. Proposed Resolution: CID 17 (PHY): Revised. Incorporate the changes in 11-21/0823r1 for CID 17: <<https://mentor.ieee.org/802.11/dcn/21/11-21-0823-01-000m-cc35-phy-comments.docx>>
        5. No objection – Mark Ready for Motion
     3. CID 83 (PHY)
        1. Review Comment
        2. Proposed Resolution: CID 83 (PHY): Revised. Incorporate the changes in 11-21/823r1 for CID 83 <<https://mentor.ieee.org/802.11/dcn/21/11-21-0823-01-000m-cc35-phy-comments.docx>>.
        3. No objection – Mark Ready for Motion
     4. CIDs 84, 85, 86, 87 (PHY):
        1. Review comments
        2. Proposed Resolution CIDs 84, 85, 86, 87 (PHY): Accepted
        3. No objection – Mark Ready for Motion
     5. CID 88 (PHY)
        1. Review Comment
        2. Proposed Resolution: CID 88 (PHY): Revised. At D0.0 P3047L48, change “T\_{SYM}, T\_{SYMS}, T\_{HT-SIG}” to “T\_{SYM}, T\_{SYMS}, T\_{L-SIG}, T\_{HT-SIG}”.
        3. No objection – Mark Ready for Motion
     6. CID 89 (PHY)
        1. Review comment
        2. Proposed Resolution: CID 89 (PHY): Revised. At D0.0 P3220L18, change “T\_{SYM}, T\_{SYMS}, T\_{VHT-SIG-A}” to “T\_{SYM}, T\_{SYMS}, T\_{L-SIG}, T\_{VHT-SIG-A}”.
        3. No objection – Mark Ready for Motion
     7. CID 349 (PHY)
        1. Review comment
        2. Proposed Resolution: Accepted
        3. No objection – Mark Ready for Motion
     8. CID 567 (PHY)
        1. Review Comment
        2. Proposed Resolution: CID 567 (PHY): Revised. In Equation (21-100) at D0.0 P3192L7, add N\_{TX} to the normalization factor by changing “sqrt( N^{Tone}\_{NON\_HT\_DUP\_OFDM-Data} )” to “sqrt( N\_{TX} N^{Tone}\_{NON\_HT\_DUP\_OFDM-Data} )”.
        3. No objection – Mark Ready for Motion
     9. CID 568 (PHY)
        1. Review Comment
        2. Discussion on the Equation that had a typo that this is correcting.
        3. Proposed Resolution: CID 568 (PHY): Revised. In Equation (19-61) at D0.0 P3013L33, add N\_{TX} to the normalization factor by changing “sqrt( N^{Tone}\_{NON-HT Duplicate} )” to “sqrt( N\_{TX} N^{Tone}\_{NON-HT Duplicate} )”.
        4. No objection – Mark Ready for Motion
     10. CID 569 (PHY)
         1. Review Comment
         2. Proposed Resolution: CID 569 (PHY): Revised. Incorporate the changes shown in 11-21/0823r1 <<https://mentor.ieee.org/802.11/dcn/21/11-21-0823-01-000m-cc35-phy-comments.docx>> for CID 569.
         3. No objection – Mark Ready for Motion
     11. CID 597 (PHY)
     12. Ran out of time, will reschedule time in a future Telecon during the July Plenary.
  3. Adjourned 11:59am ET

1. **TGme (REVme) Telecon Monday June 21st, 2021 at 10-12:00 ET**
   1. Called to order at 10:05am ET by Mark HAMILTON (Ruckus) TGme Vice Chair
   2. Apologies/regrets – Michael Montemurro is away on Holiday.
   3. Attendance:

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
|  | Ansley, Carol | Cox Communications Inc. |
|  | Au, Kwok Shum | Huawei Technologies Co., Ltd |
|  | Bhandaru, Nehru | Broadcom Corporation |
|  | Derham, Thomas | Broadcom Corporation |
|  | Henry, Jerome | Cisco Systems, Inc. |
|  | Kim, Youhan | Qualcomm Incorporated |
|  | Levy, Joseph | InterDigital, Inc. |
|  | Malinen, Jouni | Qualcomm Incorporated |
|  | McCann, Stephen | Huawei Technologies Co., Ltd |
|  | NANDAGOPALAN, SAI SHANKAR | Infineon Technologies |
|  | Petrick, Albert | Jones-Petrick and Associates, LLC. |
|  | Qi, Emily | Intel Corporation |
|  | RISON, Mark | Samsung Cambridge Solution Centre |
|  | Rosdahl, Jon | Qualcomm Technologies, Inc. |
|  | Smith, Graham | SR Technologies |
|  | Stanley, Dorothy | Hewlett Packard Enterprise |
|  | yi, yongjiang | Spreadtrum Communication USA Inc. |

* 1. Review Patent, Copyright, and Participant Policies
     1. No items noted.
  2. Review Draft Agenda- 11-21/883r5:
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0883-05-000m-may-july-teleconference-agenda.docx>

**The draft agenda for July 21 teleconference:**

1 Call to order, attendance (<https://imat.ieee.org/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. Patent, Participation and policy related slides: See slides 4-19 in <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>

2. Editor report – Emily QI/Edward AU –

3. Comment resolutions:

1. **Monday June 21, 2021 – 10am – noon Eastern**
2. HS 2.0 ANQP communication – Document 11-21/879 – Stephen (Huawei)
3. PHY CIDs – Mark (Samsung)
4. GEN CIDs “ready for review” TAB plus GEN CIDs discuss – Jon (Qualcomm)
5. Document 11-21/769 – Emily (Intel) – Editor CIDs

4.       AOB

5. Adjourn

* + 1. No objection to approval of the draft agenda.
  1. **Editor Report:** Emily QI (Intel)
     1. Still working on the Roll-in of TGax and approved CID resolutions.
     2. Expected to have integration done by July Plenary.
  2. **Review doc 11-21/879r3 - HS 2.0 ANQP communication**– Stephen MCCANN (Huawei)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0879-03-000m-discussion-about-wfa-hotspot-marketing-re-anqp.docx>
     2. 3rd time to review this document.
     3. Review the changes from previous version.
     4. CID 92 (MAC)
        1. Proposed resolution: “Revised; Add the following sentence to the end of the initial paragraph 11.22.3.3.2:

“The requesting STA should only request the ANQP-elements it needs for its operation.”

Note to commenter: There is more discussion and the change in place shown in doc 11-21/879r3: <<https://mentor.ieee.org/802.11/dcn/21/11-21-0879-03-000m-discussion-about-wfa-hotspot-marketing-re-anqp.docx>>.

* + - 1. From the submission: Change the initial paragraph of 11.22.3.3.2 as follows:

“The Query List ANQP-element is used by a requesting STA to perform an ANQP request using the procedures defined in 11.22.3.3.1. The requesting STA may include Info IDs in the Query List ANQP-element that have the sole ANQP-element type of S as shown in Table 11-14; the STA shall not include other Info IDs. “The requesting STA should only request the ANQP-elements it needs for its operation.”

* + - 1. No Objection - Mark Ready for Motion
    1. CID 96 (MAC)
       1. Proposed Resolution: Revised: Change the 4th paragraph of 11.22.3.3.1 to read:

“The ANQP response is transported in the Query Response field of GAS Response frames. The AP should include in the ANQP response the ANQP-elements requested by the non-AP STA (in the Query List ANQP-element of the ANQP request) that are available at the AP, using the procedure described in 11.22.3.2.4. The AP should provide the ANQP-elements requested by the non-AP STA that are not available at the AP at the time of the request but can be obtained by the AP from an advertisement server, using the comeback procedure described in 11.22.3.2. The AP shall not include an ANQP-element in the ANQP response that was not requested by the non-AP STA. ANQP-elements in the ANQP response shall have an ANQP-element type of S in Table 11-14 and shall be ordered by nondecreasing Info ID. The non-AP STA may interpret ANQP-elements in any order. The interpretation of ANQP-elements whose semantics overlap is implementation dependent.”

* + - 1. No objection – Mark ready for Motion
  1. **Review PHY AdHoc Comments** – Mark RISON (Samsung)
     1. CID 455 (PHY)
        1. Review comment
        2. Assign comment to Brian Hart
        3. Submission required.
     2. CID 283 (PHY)
        1. More work required.
        2. Look to solicit help from Sean COFFEY
     3. CID 285 (PHY)
        1. Review comment
        2. We have discussed Antenna Connector definitions before.
        3. Why do we need more discussion on this topic?
           1. Concern on if there is only one connector, or multiple, 2 – one RX and one TX. One for multiple AP clusters?
           2. Need to discuss more.
        4. More work required. Maybe request help from Brian. Is there any need for a change? Need to fix inconsistencies.
        5. If the Connector is a logical concept, maybe there is not an inconsistency.
        6. Looking for statement in that direction to resolve comment if it is.
     4. CID 345 (PHY)
        1. Review comment
        2. Assign to Mark RISON
        3. More work to complete required.
     5. CID 532 (PHY)
        1. Review comment
        2. There are 41 instances of “CCA-ED”.
        3. In table 8 (annex E) there seems to be a problem with the reference on p766.46.
        4. Concern with adding “regulatory-only” prior to CCA-ED may cause readability issues. Maybe a better name for CCA-ED may be determined.
        5. Possible use REG-CCA-ED for the acronym would be better (with or without the “ED”).
        6. As this is an energy detection, it may be better to keep the ED.
        7. Add to adhoc notes: PHY: 2021-06-21 14:37:15Z - "regulatory-only CCA-ED" is a bit of a mouthful. How about REG-CCA-ED? Also need to check the instances of CCA-ED that appear to be normal ED not the special one (e.g. in 23.3.18.5.4.1 and Table 8-5)
        8. Assign to Mark RISON – Submission required.
     6. CID 537 (PHY)
        1. Review Comment
        2. Review 19.2.3 PHYCONFIG\_Vector and 21.2.3 etc.
           1. There are subclauses for each PHY.
        3. Missing definitions for DSSS, HR and ERP for PHYCONFIG\_VECTOR, but it is not relevant for the “11-b” PHYs.
        4. Add to Adhoc notes: Maybe not needed if there is just a single indivisible channel (but why does DMG have a PHYCONFIG\_VECTOR then?) If we add for older PHYs, then need to add not just description, but also references to it. How do old PHYs set the channel (MIB?)
        5. The old PHYs are setting their channel, but we may need to identify if it was done in the MIB and so, then we do not want to define a second way.
        6. PHYCONFIG vector is currently (at least in the examples given by MR) used to set things like Primary20 lower/upper, DL MU-MIMO Group ID, segment center frequency for non-contiguous transmissions, etc.
        7. None of these apply to DSSS, HR/DSSS, ERP, so it may be that those PHYs are missing PHYCONFIG vectors because they never needed one.
        8. More work to be done.
     7. CID 268 (PHY)
        1. Review comment
        2. More work to do – Need to find S1G Expert.
     8. CID 409 (PHY)
        1. Review comment.
        2. SIG field contents should describe what they are, not (or not just) which TXVECTOR parameter they are set from
        3. Concern that we have had comments to add this in the past, but then determined it was duplicative. Concern on thrashing back and forth.
        4. More work
        5. Assign to Mark RISON
     9. CID 501 and 502 (PHY)
        1. Review comment
        2. What is meant by “preamble”?
        3. Need a PHY expert to look into these CIDs.
        4. Assign to Sigurd and request feedback.
     10. CID 503 (PHY)
         1. Also goes with 501 and 502 (PHY)
     11. CID 517 (PHY)
         1. Review Comment
         2. RSSI is relative with no specific reference point. Beacon RSI is in dBm.
         3. More research may be needed.
         4. Assign to Mark RISON
  2. **Gen AdHoc** – Review 12 CIDs – 11-21/699r6 - Jon Rosdahl (Qualcomm).
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0699-06-000m-gen-adhoc-revme-cc35-comments.xls>
     2. CID 235 (GEN)
        1. Review Comment
        2. Reviewed the draft locations.
        3. No use of “RecivedTIMs” found in draft.
        4. Ok to remove cited text.
        5. Proposed Resolution: ACCEPTED (GEN: 2021-06-21 15:07:00Z)
        6. Mark Ready for Motion.
        7. Request to have an S1G expert validate the removal of the text.
        8. But, the text in the Description appears to be normative behavior. Do we need that somewhere? Ask an S1G expert.
        9. ACTION ITEM: Jon to check with S1G experts.
     3. CID 105 (GEN)
        1. Review comment
        2. Proposed Resolution: REJECTED (GEN: 2021-06-21 15:17:09Z) The cited text is being removed by CID 235.
        3. Note that this is a cautious reject until we are sure CID 235 is validated for the deletion.
        4. More research may be needed.
        5. ACTION ITEM: Jon to check with S1G experts if CID 235 removes text then ok to reject this one.
        6. Hold status at Review for now.
     4. CID 104 (GEN)
        1. Review comment
        2. Assign to Joe Levy – Submission Required – Minor Technical Comment Group.
     5. CID 322 (GEN):
        1. Review Comment
        2. GEN: 2021-05-14 16:10:49Z
        3. Discussed Proposed Resolution: Revised; at p322.51

Change "Delay (in microseconds) to be used prior

to transmitting a Probe frame during active scanning."

To Option 1:

"Delay (in microseconds) to be used prior

to transmitting a Probe Request frames

or NDP Probe Request frames during

active scanning."

To Option 2:

"Delay (in microseconds) to be used prior

to transmitting a probe request during

active scanning."

* + - 1. Discussion on if lower case probe request or use of both “Probe Request frames or NDP Probe Request frames” should be used.
      2. Initial suggestion was just “Probe Request frames”
      3. After discussion the option for the resolution uses "probe request”
      4. Proposed Resolution: REVISED (GEN: 2021-06-21 15:35:59Z) Revised; at p322.51

Change "Delay (in microseconds) to be used prior

to transmitting a Probe frame during

active scanning."

To "Delay (in microseconds) to be used prior

to transmitting a probe request during

active scanning."

* + - 1. No objection – Mark Ready for Motion.
  1. **Review doc 11-21/769r2** - **Editor CIDs** - Emily QI (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0769-02-000m-proposed-resolution-for-revme-cc35-editor1-ad-hoc-comments.docx>
     2. CID 346 (ED1)
        1. Review comment
        2. Text has not changed since 2012, so no change expected now.
        3. No issue was identified in the comment. Subclause 9.7 has been structured in this way since Std 802.11-2012
        4. Proposed Resolution: Rejected. Reason: No issue was identified in the comment. Subclause 9.7 has been structured in this way since Std 802.11-2012.
        5. Question on if the subclause heading necessary?
        6. If it is a Subfields should be defined in the same manner as other subfields.
        7. Possible changes could be to remove the subclause title and remove the 2 cross-references. Then change CRC info that has a reference.
        8. Refer to the update to R3 for final set of changes in context.
        9. Proposed Resolution: Revised. At 1673.55 delete the subclause title: 9.7.2 MPDU delimiter CRC field

At 1673.11, 1672.51, delete: (see 9.7.2 (11MPDU delimiter CRC field);

* + 1. CID 427 (ED1)
       1. Review comment.
       2. Proposed Resolution: Revised.

Change “Subtype” to “subtype” at 1679.9 and 1679.12.

At 1679.6, change “Type field to “Type subfield”.

* + - 1. No objection – Mark Ready for Motion.
  1. **Adjourned 12:00 ET.**

**References:**

June 7th:

1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0883-02-000m-may-july-teleconference-agenda.docx>
2. <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>
3. <https://mentor.ieee.org/802.11/dcn/21/11-21-0879-01-000m-discussion-about-wfa-hotspot-marketing-re-anqp.docx>
4. <https://mentor.ieee.org/802.11/dcn/21/11-21-0787-00-0000-communication-from-wfa-hotspot-marketing-tg-re-anqp.docx>
5. <https://mentor.ieee.org/802.11/dcn/21/11-21-0730-02-000m-proposed-resolution-for-revme-cc35-comments.docx>
6. <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-01-000m-cc35-crs-a.docx>
7. <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-02-000m-cc35-crs-a.docx>

June 14th:

1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0883-04-000m-may-july-teleconference-agenda.docx>
2. <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>
3. <https://mentor.ieee.org/802.11/dcn/21/11-21-0738-03-000m-revme-wg-cc35-editor1-ad-hoc-comments.xlsx>
4. <https://mentor.ieee.org/802.11/dcn/21/11-21-0699-05-000m-gen-adhoc-revme-cc35-comments.xls>
5. <https://mentor.ieee.org/802.11/dcn/21/11-21-0690-02-000m-revme-cc35-sec-comments.xlsx>
6. <https://mentor.ieee.org/802.11/dcn/21/11-21-0793-01-000m-revme-mac-comments.xls>
7. <https://mentor.ieee.org/802.11/dcn/21/11-21-0790-06-000m-revme-cc35-6ghz-comments.docx>
8. <https://mentor.ieee.org/802.11/dcn/21/11-21-0690-02-000m-revme-cc35-sec-comments.xlsx>
9. <https://mentor.ieee.org/802.11/dcn/21/11-21-0871-01-000m-rejected-groups-in-sae.docx>
10. <https://mentor.ieee.org/802.11/dcn/21/11-21-0965-00-000m-cc35-phy-cids-19-18-14-15-527.docx>
11. <https://mentor.ieee.org/802.11/dcn/21/11-21-0965-01-000m-cc35-phy-cids-19-18-14-15-527.docx>
12. <https://mentor.ieee.org/802.11/dcn/21/11-21-0822-01-000m-cc35-delta-snr-comments.docx>
13. <https://mentor.ieee.org/802.11/dcn/21/11-21-0822-02-000m-cc35-delta-snr-comments.docx>
14. <https://mentor.ieee.org/802.11/dcn/21/11-21-0823-01-000m-cc35-phy-comments.docx>

June 21st:

1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0883-05-000m-may-july-teleconference-agenda.docx>
2. <https://mentor.ieee.org/802.11/dcn/21/11-21-0182-00-0000-2nd-vice-chair-report-march-2021.pptx>
3. <https://mentor.ieee.org/802.11/dcn/21/11-21-0879-03-000m-discussion-about-wfa-hotspot-marketing-re-anqp.docx>
4. <https://mentor.ieee.org/802.11/dcn/21/11-21-0699-06-000m-gen-adhoc-revme-cc35-comments.xls>
5. <https://mentor.ieee.org/802.11/dcn/21/11-21-0769-02-000m-proposed-resolution-for-revme-cc35-editor1-ad-hoc-comments.docx>