IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TGmd 2019 July, August, September teleconference Minutes | | | | |
| Date: 2019-08-06 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdahl | Qualcomm Technologies, Inc. | 10871 N 5750 W  Highland, UT 84003 | +1-80-1492-4023 | jrosdahl@ieee.org |
| Edward Au | Huawei |  |  | [edward.ks.au@gmail.com](mailto:edward.ks.au@gmail.com) |
| Joseph Levy | InterDigital |  |  | [Joseph.Levy@interdigital.com](mailto:Joseph.Levy@interdigital.com) |

Abstract

This document contains the draft minutes for the July, August and September 2019 TGmd teleconferences:

* Tuesday July 30, August 6, 27, Sept 3, at 3PM Eastern, 2 hours
* Friday August 2, 9, Sept 6 10am Eastern 2 hours

R0: July 30 Minutes.

R1: August 2 Minutes

We’ll use the [join.me](http://join.me) bridge:  <https://join.me/ieee802.11>, see <http://grouper.ieee.org/groups/802/11/joinme.html> for more detailed instructions.

Teleconferences are subject to applicable policies and procedures, see below.

==================================================

Teleconferences are subject to applicable policies and procedures, see below.

  •       IEEE Code of Ethics

–       <https://www.ieee.org/about/corporate/governance/p7-8.html>

•       IEEE Standards Association (IEEE-SA) Affiliation FAQ

–       <https://standards.ieee.org/faqs/affiliation.html>

•       Antitrust and Competition Policy

–       <https://standards.ieee.org/content/dam/ieee-standards/standards/web/documents/other/antitrust.pdf>

•       IEEE-SA Patent Policy

–       <http://standards.ieee.org/develop/policies/bylaws/sect6-7.html>

–       <https://standards.ieee.org/about/sasb/patcom/>

 •       IEEE 802 Working Group Policies &Procedures (29 Jul 2016)

–       <http://www.ieee802.org/PNP/approved/IEEE_802_WG_PandP_v19.pdf>

•       IEEE 802 LMSC Chair's Guidelines (Approved 13 Jul 2018)

1. **802.11md - REVmd – Telecon, Tuesday 30 July 2019, 15:00- 17:00 ET**
   1. **Call to Order** at 3:05pm ET by the TG Chair, Dorothy STANLEY (HPE)
   2. **Attendance:**
      1. Dorothy STANLEY (HPE)
      2. Jon ROSDAHL (Qualcomm)
      3. Mark RISON (Samsung)
      4. Sean COFFEY (Realtek)
      5. Mike MONTEMURRO (Blackberry)
      6. Emilly QI (Intel)
      7. Edward AU (Huawei)
   3. **Patent Policy:** 
      1. Reviewed Policy – Call for Patents made
      2. No items noted.
   4. **Participation slide:** 
      1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   5. **Review Agenda** – 11-19/1367r1
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1367-01-000m-2019-july-aug-sept-tgmd-teleconference-agendas.docx>
      2. Change order to put Menzo after Mark
      3. **2019-07-30 Tuesday 3PM Eastern, 2 hours**
         * GEN CIDS – Jon ROSDAHL
         * 11-19-0856 - Mark RISON CIDs 2316, 2366, 2606, 2584/2585, 2604, 2582
         * 11-19-1195 – Menzo WENTINK
      4. No objection to change ordering of Agenda:
      5. Will post 11-19/1367r2.
   6. **Editor report** –11-18/611r22 -Emily QI (Intel) /Edward AU (Huawei)
      1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0611-22-000m-revmd-wg-ballot-comments.xls>
      2. Thanks for Edward covering in Emily’s absence.
      3. Review comments that were approved in July – see tab “201907 Approved” 180 CIDs.
      4. Great progress has been made.
      5. Will edit approved comment changes into the draft and about 2 weeks a review of updates to be conducted.
      6. We have about 180 CIDs left to go
      7. Target for a D2.4 for the Adhoc in August.
   7. **Review GEN CIDS** – Jon ROSDAHL (Qualcomm)
      1. “Discuss” category comments, to identify a direction
      2. CID 2336 (GEN)
         1. Reviewed the comment. Several changes are suggested by the commenter.
         2. No non-primary in a 20 MHz channel.
         3. Primary channel definition and secondary channel definition, discussion on the proposed change which includes “20 MHz” appended.
         4. Table 8-5, channel list parameter refers to the primary 20 MHz channel.
         5. P192L34 primary 20 MHz - includes 20 MHz
         6. Have we gone through use of the terms in the standard?
         7. Believe spec has been written to assume this.
         8. Proposed Resolution: REVISED (GEN: 2019-07-30 19:44:15Z) –

1. At the end of the definition of "primary channel" append "For example, in a 20 MHz, 40 MHz, 80 MHz, 160 MHz or 80+80 MHz basic service set (BSS) the primary channel is a primary 20 MHz channel."

2. In the definition of "nonprimary channel", "primary 20 MHz channel", "primary 40 MHz channel", "primary 80 MHz channel" delete "very high throughput (VHT)".

3. In the definition of "primary 20 MHz channel" delete "In a VHT BSS, the primary 20 MHz channel is also the primary channel."

4. Change the definition of "secondary channel" to

"A channel associated with a primary channel used to create a channel wider than the primary channel. In a 40 MHz, 80 MHz, 160 MHz or 80+80 MHz basic service set (BSS) the secondary channel is a secondary 20 MHz channel."

5. Change the definition of "20 MHz basic service set" to "A BSS in which there is a primary 20 MHz channel and no secondary channel.",

* + - 1. No objection - Mark Ready for Motion
    1. CID 2395 (GEN)
       1. Review comment
       2. Discussion on if definition or explicit expansion should be done.
       3. There are 153 occurrences of VHT MU PHY PPDU in the document.
       4. There was a debate in TGax on the term VHT MU PHY PPDU and what it means.
       5. If there are 153 occurrences, perhaps we should add a definition.
       6. There is already a definition for VHT SU PHY PPDU
       7. This term is used extensively in the document.
       8. The definition of VHT SU PHY PPDU refers to a few TX Vector parameters. The VHT MU PHY PPDU is more descriptive.
       9. An alternate way forward could be to change the definition, deleting “format equal to VHT and”
       10. Now there’s a discrepancy between the MU and SU definitions.
       11. Keep the descriptive text for MU and modify the SU to be more descriptive.
       12. Proposed Resolution: REVISED (GEN: 2019-07-30 20:02:38Z) –

1. Change the definition of "very high throughput (VHT) single-user (SU) physical layer (PHY) protocol data unit (PPDU)" to

"A VHT PPDU that carries one PHY service data unit (PSDU) for one user and is not transmitted using the downlink multi-user multiple input, multiple output (DL-MU-MIMO) technique."

2. Change the definition of "very high throughput (VHT) multi-user (MU) physical layer (PHY) protocol data unit (PPDU)" to

"A VHT PPDU that is capable of carrying up to four PHY service data units (PSDUs) for up to four users and is transmitted using the downlink multi-user multiple input, multiple output (DL-MU-MIMO) technique."

* + - 1. No Objection – Mark Ready for Motion
    1. CID 2644 (GEN)
       1. Start to Review CID and Mark RISON volunteered to prepare a submission.
       2. Mark “Submission Required” and move to “Gen Assigned CID” tab
    2. CID 2224 (GEN)
       1. Review Comment
       2. The new definition does not allow classification to occur above the MAC SAP.
       3. This is really a MAC comment.
       4. Assign to “EDCA” Comment Group and move to MAC adhoc group.
    3. No other GEN comments to discuss today.
  1. **Review Doc 11-19-0856** - Mark RISON (Samsung)
     1. Review CIDs 2316, 2366, 2606, 2584/2585, 2604, 2582
     2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-06-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>
     3. CID 2316 (MAC)
        1. The comment is not ready for discussion
     4. CID 2366 (MAC)
        1. Review comment
        2. Review proposed changes
        3. The MAC variable aSlotTime and the PHY variable aSlotTIme are distinct and need to be unambiguous definition.
        4. Discussion of the deletion “At D2.2/2958.33 delete “A STA shall use short slot if the BSS indicates short slot.”
        5. Discussion of aCWmin – MAC and PHY versions.
        6. Review the Local Variable to MAC Variables changes.
        7. Proposed Resolution: Make the changes shown under “Proposed changes” for CID in 11-19/856r7 <<https://mentor.ieee.org/802.11/dcn/19/11-19-0856-07-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx> which make clear distinctions between MAC variables (including state variables), PHY characteristics and MIB attributes.
        8. No objection – Mark Ready for Motion
     5. CID 2606 (MAC)
        1. Review comment
        2. Review the rules for “can”.
        3. Review other editorial changes briefly but spent more time on the substantive changes.
        4. Proposed Resolution: REVISED; 1.4 allows both “present” and “included”, so those changes are not necessary.

Make the following changes in D2.2:

At 1014.18 change “optional subelements field” to “list of optional subelements”.

At 1014.53 change “Multiple AP Channel Report and Vendor Specific subelements can be included in the list of optional subelements.” to “Zero or more AP Channel Report subelements and zero or more Vendor Specific subelements are included in the list of optional subelements.”

At 1029.60, 1072.59, 1073.3, 1547.1 change “Optional Subelements field” to “list of optional subelements”.

At 1033.63, 1081.50, 1083.2, 1084.14, 1085.60 change “Multiple Vendor Specific subelements can be included in the list of Optional Subelements.” to “Zero or more Vendor Specific subelements are included in the list of optional subelements.”

At 1036.54 change “Multiple Vendor Specific subelements can be included in the Optional Subelements field.” to “Zero or more Vendor Specific subelements are included in the list of optional subelements.”

At 1210.50 change “list of Optional subelements” to “list of optional subelements”.

At 1150.65 delete “More than one Multiple BSSID element can be included in a Beacon, S1G Beacon,(11ah) or DMG Beacon frame.”

At 1458.1 delete “Zero or more Venue Name fields can be included in the same or different languages.” (cf. line 17).

At 1623.25 change “Multiple Channel Measurement Info fields can be included if the reporting STA measures the channel for multiple RDSs.” to “More than one Multiple Channel Measurement Info field is included if the reporting STA measures the channel for multiple RDSs.”

* + - 1. No objection – Mark Ready for Motion
    1. CID 2584 and 2585 (MAC)
       1. Review comment
       2. Discussion of the meaning of “Extensible”.
       3. Add page and line number (990.1) to the resolution.
       4. Missing Quotes in 10.29.8 and 10.29.9, so the quote marks should be added.
       5. Discussion on if the cells that are blank in a table should be filled in with” No” or not.
       6. CID 1105 had a resolution “REVISED (MAC: 2018-08-01 23:28:12Z): REVISED – Add a “No” to the Extensible column for all rows that currently have a blank cell (except for the reserved rows).”
       7. Was this just for the cited table or not.
       8. Vendor Specific is often Extensible, so we may have trouble knowing if it is extensible or not.
       9. We should change the resolution to allow for Vendor Defined for Vendor Specific, and leave Reserved blank, but can fill in the others with “No”.
       10. This would also require changing the table CID 1105 changed to “No” to change to “Vendor defined”.
       11. Running out of time – need more review and bring back later.
    2. CID 2418 (MAC)
       1. Review Comment – not ready
    3. CID 2582 (MAC)
       1. Review Comment
       2. Missing identification of “PCP” not being included in the clause.
  1. **Next Call** Aug 2 - Friday Morning
     1. 2019-08-02 Friday 10am Eastern, 2 hours

1. 11-19-1297 CIDs 2537-2539 – Stephen MCCANN
2. FILS CIDs – Marc EMMELMANN
3. 11-19-1195 – Menzo WENTINK
4. 11-19-0856 - Mark RISON CIDs 2316, 2366, 2606, 2584/2585, 2604, 2582
   * 1. Note: Jon and Mark H will not be on call.
     2. Note: Michael MONTEMURRO to take minutes
   1. **Adjourn at 5:02pm ET**

1. **802.11md - REVmd – Telecon, Friday 2 August 2019, 10:00- 12:00 ET**
   1. **Call to Order** at 10:02am ET by the TG Chair, Dorothy STANLEY (HPE)
   2. **Attendance:**
      1. Dorothy STANLEY (HPE)
      2. Mike MONTEMURRO (Blackberry)
      3. Emilly QI (Intel)
      4. Edward AU (Huawei)
      5. Osama ABOUL-MAGD (Huawei)
      6. George CALCEV (Futurewei)
      7. Sean COFFEY (Realtek)
      8. Marc EMMELMANN (Self)
      9. Joseph LEVY (InterDigital)
      10. Stephen MCCANN (BlackBerry)
      11. Mark RISON (Samsung)
   3. **Patent Policy:** 
      1. Reviewed Policy – Call for Patents made
      2. No items noted.
   4. **Participation slide:** 
      1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
   5. **Review Agenda** – 11-19/1367r1
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1367-02-000m-2019-july-aug-sept-tgmd-teleconference-agendas.docx>
      2. **2019-08-02 Friday 10AM Eastern, 2 hours**
         * 11-19-1297 CIDs 2537-2539 – Stephen MCCANN
         * 11-19-1385 CID 2543 – Edward AU
         * FILS CIDs – Marc EMMELMANN
         * 11-19-1195 – Menzo WENTINK
         * 11-19-0856 - Mark RISON CIDs 2584/2585, 2604, 2582
      3. No objection on the agenda items.
   6. **Editor report** – Emily QI (Intel) / Edward AU (Huawei)
      1. Continue editing approved comment changes into the draft.
   7. **Review Doc 11-19-1297** – Stephen MCCANN (BlackBerry)
      1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1297-03-000m-cids-2537-2539-proposed-resolutions.doc>
      2. CID 2537 (GEN)
         1. Review comment.
         2. Add page and line number (581.15 and 584.34 in D2.0) to the resolution.
         3. Proposed resolution: ACCEPT
         4. No objection – Mark Ready for Motion
      3. CID 2538 (GEN)
         1. Review comment.
         2. Add page and line number (581.21, 583.7, 584.40, and 586.20 in D2.0) to the resolution.
         3. Proposed resolution: ACCEPT
         4. No objection – Mark Ready for Motion
      4. CID 2539 (GEN)
         1. Review comment.
         2. The capitalization of “GAS Query Request” is odd as it is neither an element nor field.
         3. Proposed Resolution: REVISED, Make the changes shown under “Proposed changes” for CID 2539 in 11-19/1297r4 <<https://mentor.ieee.org/802.11/dcn/19/11-19-1297-04-000m-cids-2537-2539-proposed-resolutions.doc>>.
         4. No objection – Mark Ready for Motion
   8. **Review Doc 11-19-1385** – Edward AU (Huawei)
      1. CID 2543 (EDITOR2)
         1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1385-00-000m-resolution-for-cid-2543.docx>
         2. Review comment.
         3. At 2382.52, replace “the ARP Response packet” with “the ARP response packet”.
         4. Proposed Resolution: REVISED, Make the changes shown under “Proposed changes” for CID 2543 in 11-19/1385r1 <<https://mentor.ieee.org/802.11/dcn/19/11-19-1385-01-000m-resolution-for-cid-2543.docx>>.
         5. No objection – Mark Ready for Motion
   9. **Review Doc 11-19-1253** – Marc EMMELMANN (Self)
      1. CID 2579 (MAC)
         1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1253-00-000m-suggested-comment-resolution-for-cid-2579-on-remmd-d2-0.docx>
         2. Review comment.
         3. Proposed Resolution: ACCEPTED
         4. No objection – Mark Ready for Motion
   10. **Review Doc 11-19-1250** – Marc EMMELMANN (Self)
       1. CID 2524 (MAC)
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1250-00-000m-suggested-comment-resolution-for-cid-2524-on-remmd-d2-0.docx>
          2. Review comment.
          3. Proposed Resolution: REVISED, Make the changes shown under “Proposed changes” for CID 2524 in 11-19/1250r1 <<https://mentor.ieee.org/802.11/dcn/19/11-19-1250-01-000m-suggested-comment-resolution-for-cid-2524-on-remmd-d2-0.docx>> that changes the identified text to “The SME is notified of the received IP Address setup request.”.
          4. No objection – Mark Ready for Motion
   11. **Review Doc 11-19-1251** – Marc EMMELMANN (Self)
       1. CID 2547 (MAC)
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1251-00-000m-suggested-comment-resolution-for-cid-2547-on-remmd-d2-0.docx>
          2. Review comment.
          3. Proposed Resolution: REVISED, Make the changes shown under “Proposed changes” for CID 2547 in 11-19/1251r1 <<https://mentor.ieee.org/802.11/dcn/19/11-19-1251-01-000m-suggested-comment-resolution-for-cid-2547-on-remmd-d2-0.docx>> that, in Table 9-293 at the end of the rightmost cell for rows B2 and B4, add “See NOTE.” and at the bottom of the table add a table “NOTE---A STA in a purely local network environment might be assigned an IP address without requiring a gateway address.”.
          4. No objection – Mark Ready for Motion
   12. **Review Doc 11-19-1248** – Marc EMMELMANN (Self)
       1. CID 2407 (MAC)
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1248-01-000m-suggested-comment-resolution-for-cid-2407-on-remmd-d2-0.docx>
          2. Review comment.
          3. Discuss on the terms “high priority” versus “prioritized FILS”.
          4. Proposed Resolution: REVISED, Make the changes shown under “Proposed changes” for CID 2407 in 11-19/1248r2 <<https://mentor.ieee.org/802.11/dcn/19/11-19-1248-02-000m-suggested-comment-resolution-for-cid-2407-on-remmd-d2-0.docx> >.
          5. No objection – Mark Ready for Motion
   13. **Review Doc 11-19-1247** – Marc EMMELMANN (Self)
       1. CID 2406 (MAC)
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-1247-01-000m-suggested-commente-resolution-for-cid-2406-on-remmd-d2-0.docx>
          2. Review comment.
          3. Discuss on the terminology of “Differentiated Initial Link Setup element”.
          4. Proposed Resolution: ACCEPTED
          5. No objection – Mark Ready for Motion
   14. 11-19/0856r6– Mark Rison (Samsung)
       1. CID 2583
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-06-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>
          2. Review comment.
          3. Reviewed proposed changes – showing additions of PCPs
          4. Chair asked for comments – there were none.
          5. Small addition of an “ ’ ” , will be in R7
          6. No objection – Mark Ready for Motion
       2. CID 2604
          1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-06-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>
          2. Review comment.
          3. Reviewed proposed changes – addressing changing “successfully receive” as you either receive it or not.
          4. The Editor was concerned as to the direction of this change, which provoked some discussion
          5. Discussed the previous comment CID 1118, which is in this direction – was accepted. This comment defined the principle.
             1. History: CID 1118: "successfully" is unnecessary (an unsuccessful receive is not possible); Editorial comment in one place; Delete "successfully" ACCEPTED (EDITOR2: 2018-03-25 07:04:44Z)
          6. Discussion on the use of “on either” near one of the “successful” deletions. Decided to delete the “on either”.
          7. Some discussion on “Multicast MSDU” – this will not be addressed with this CID.
          8. Updates will be in R7 to be posted – Author will add line numbers and highlight deletions.
          9. No objection – Mark Ready for Motion as a separate motion.
       3. Open item: CID 2606 resolution should be updated – will be discussed in the future. The updated resolution will be in r7.
   15. Next Teleconference – Tuesday 2019-8-06 3PM EDT. The agenda has been updated as shown:
       * 11-19-660 CID 2115 – Ganesh VENKATESAN
       * CID 2234 - 11-19-610 – Emily QI
       * 11-19-0856 - Mark RISON CIDs 2606 (revisit)
       * CID 2357 (Discussed in Vienna, confirm no additional changes MAH) – HAMILTON
       * CID 2692, MAC CIDs – Mark HAMILTON
       * 11-19-0856 - Mark RISON CIDs 2584/2585
   16. **Adjourn at 12:02pm ET**

**References:**

July 30:

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/19/11-19-1367-01-000m-2019-july-aug-sept-tgmd-teleconference-agendas.docx>
3. <https://mentor.ieee.org/802.11/dcn/18/11-18-0611-22-000m-revmd-wg-ballot-comments.xls>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-06-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-07-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>

August 2:

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/19/11-19-1367-02-000m-2019-july-aug-sept-tgmd-teleconference-agendas.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-1297-03-000m-cids-2537-2539-proposed-resolutions.doc>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-1297-04-000m-cids-2537-2539-proposed-resolutions.doc>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-1385-00-000m-resolution-for-cid-2543.docx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-1385-01-000m-resolution-for-cid-2543.docx>
7. <https://mentor.ieee.org/802.11/dcn/19/11-19-1253-00-000m-suggested-comment-resolution-for-cid-2579-on-remmd-d2-0.docx>
8. <https://mentor.ieee.org/802.11/dcn/19/11-19-1250-00-000m-suggested-comment-resolution-for-cid-2524-on-remmd-d2-0.docx>
9. <https://mentor.ieee.org/802.11/dcn/19/11-19-1250-01-000m-suggested-comment-resolution-for-cid-2524-on-remmd-d2-0.docx>
10. <https://mentor.ieee.org/802.11/dcn/19/11-19-1251-00-000m-suggested-comment-resolution-for-cid-2547-on-remmd-d2-0.docx>
11. <https://mentor.ieee.org/802.11/dcn/19/11-19-1251-01-000m-suggested-comment-resolution-for-cid-2547-on-remmd-d2-0.docx>
12. <https://mentor.ieee.org/802.11/dcn/19/11-19-1248-01-000m-suggested-comment-resolution-for-cid-2407-on-remmd-d2-0.docx>
13. <https://mentor.ieee.org/802.11/dcn/19/11-19-1248-02-000m-suggested-comment-resolution-for-cid-2407-on-remmd-d2-0.docx>
14. <https://mentor.ieee.org/802.11/dcn/19/11-19-1247-01-000m-suggested-commente-resolution-for-cid-2406-on-remmd-d2-0.docx>
15. <https://mentor.ieee.org/802.11/dcn/19/11-19-0856-06-000m-resolutions-for-some-comments-on-11md-d2-0-lb236.docx>