IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| REVmc-BRC Minutes for July - Waikoloa | | | | |
| Date: 2015-07-16 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdahl | CSR Technologies Inc. | 10871 N 5750 W  Highland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |
|  |  |  |  |  |

Abstract

Minutes for the 802.11 REVmc Ballot Resolution Committee (BRC) at the 2015 July IEEE 802 Plenary at the Hilton Waikoloa Village, Waikoloa, Hawaii 13-16 July 2015.

1. **Minutes for 802.11 TGmc** REvmc BRC for Monday 13 July 2015 PM1 –
   1. Called to order by Dorothy STANLEY (HP/Aruba) 1:32pm
   2. Introduction of Officers: Chair: Dorothy STANLEY (HP/Aruba); Vice-Chair: Mark HAMILTON (Ruckus Wireless); Vice-Chair/Secretary: Jon ROSDAHL (CSR); Editor: Adrian STEPHENS (Intel); Co-Editors: Edward AU (Marvel) & Emily QIi (Intel)
   3. Review Patent Policies
      1. No Issues identified
   4. **Review Logistics:**
      1. See slide 6 in doc 11-15/726r1: <https://mentor.ieee.org/802.11/dcn/15/11-15-0726-01-000m-tgmc-agenda-july-2015.pptx>
   5. **WG chair has delegated BRC Ballot Resolution Committee responsibility to TGmc:** 
      1. **See** [**http**](file:///C:\Users\jr05\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\I9LB4W7T\http)[**://www.ieee802.org/11/email/stds-802-11/msg01475.html**](http://www.ieee802.org/11/email/stds-802-11/msg01475.html)
      2. *“The resolution of comments is delegated to TGmc, acting as a sponsor Ballot Resolution Committee (BRC):*

*For convenience, we will continue to use the term “TGmc” to represent this BRC*

*Any voting member of 802.11 can vote at TGmc meetings*

*TGmc can consider motions (e.g. comment resolution, other changes to the draft, to recirculate) in any of its meetings – including telecons*

*TGmc will meet during 802.11 F2F meetings*

*Ultimately the WG is required to approve any request to the executive committee to move the project to the standards board for approval.”*

* 1. **Review agenda** (11-15/726r1 Slide 3)
     1. Monday PM1
        1. Chair’s Welcome, Status, Review of Objectives, Approve agenda, minutes
        2. Editor’s Report
        3. Comment resolution
           1. 11-15-758,
           2. 11-15-762
     2. Tuesday PM1
        1. 11ad comment resolution,
           1. 11-15-538
     3. Tuesday PM2

1. Comment resolution:
   * + 1. Security CIDs,
       2. 11-15-769,
       3. 11-15-763
     1. Wednesday PM1
2. Motions:
3. Editorialsspeculativelyedited,
4. MAC,
5. GEN
6. Comment resolution –
7. Location CIDs
   * 1. Wednesday PM2
8. CCA 11b -- 11-15-0516 Graham Smith
9. Comment resolution
10. CIDs 5959, 5960 Matt Fischer 11-15-653, 11-15-654
    * 1. Thursday PM1
11. Comment resolution –
12. Peter Ecclesine
    * 1. Thursday PM2
13. Motions
14. Plans for September, Schedule
15. AOB,
16. Adjourn
    * 1. Mark RISON requested to set aside time to review his objections on the speculatively edited editorial comments. The Editors will try to review those objections and determine how much time will be needed. Dorothy will see where (if anywhere) it can fit into the agenda, based on that.
    1. **Approve prior meeting minutes**
       1. <https://mentor.ieee.org/802.11/dcn/15/11-15-0523-00-000m-revmc-minutes-for-may-vancouver.docx>
       2. <https://mentor.ieee.org/802.11/dcn/15/11-15-0771-00-000m-revmc-brc-telecon-minutes-june-26.docx>
       3. <https://mentor.ieee.org/802.11/dcn/15/11-15-0739-02-000m-revmc-brc-telecon-minutes-may-june.docx>
       4. <https://mentor.ieee.org/802.11/dcn/15/11-15-0742-01-000m-revmc-brc-minutes-for-june-portland.docx>
       5. MOTION: Approve the above meeting minutes.
          1. Moved: Mike MONTEMURRO Second: Adrian STEPHENS.
          2. Results: No objection. Motion Passes.
    2. **Editor’s report** (11-13/0095r23)
       1. About 30 of the 630 speculatively edited comments are a the list that have some objections raised.
       2. Handled 114 editorials that the editors’ feels should be rejected. These will need to be reviewed. Looking for an efficient mechanism to go through these.
       3. Noted that speculative editing continues.
       4. Noted comments that are assigned, and reminded assignees that they have work to do.
       5. A number of editorial comments are ready for discussion
    3. **Comment resolution, document 11-15/758r2**:
       1. CID 5064 (GEN)
          1. TGay may want to use the DMG relay function. Agreed to reject
          2. Resolution: REJECTED: The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
          3. No objection. Mark ready for motion.
       2. CID 5069 (EDITOR), CID 5077 (EDITOR)
          1. Make sure the resolution doesn’t make a reference to future work to be done. Reworded.
          2. Resolution to CID 5069: REVISED: Editor to request 802.11 ANA to update database to reflect reason code names in the draft.
          3. No objection. Mark ready for motion.
          4. Resolution to CID 5077: REVISED: Editor to request allocations from the 802.11 ANA for any items flagged <ANA> and replace such flags and delete related editorial notices once the allocations have been provided.
          5. No objection. Mark ready for motion.
       3. CID 5149 (MAC)
          1. Reviewed discussion in document about what the name “HT-immediate” means. Agree we could, perhaps, change it. Should we?
          2. Should we be burdened with our history, for all our terms? Let’s change it to be more clear.
          3. Could add clarification to the definition of HT-immediate to say it also applies to DMG STAs, and leave the name.
          4. Suggestion “extended-immediate”
          5. Straw Poll: The use of HT-immediate block ack is misleading and should be changed:
             1. Yes: 2 No: 8 Abstain: 2
          6. Proceed with Rejection resolution. REJECTED: The term “HT-immediate” is used consistently.
          7. No objection. Mark ready for motion.
       4. CID 5154 (MAC)
          1. No implementations known, so propose to make it obsolete, and not deprecated.
          2. Proposed Resolution: REVISED:
             1. At 1391.05 (before the first para) add: “The L-SIG TXOP protection mechanism is obsolete. Consequently, this subclause might be removed in a later revision of this standard.”
             2. At 2753.37 in the “Protocol capability” column add: “The L-SIG TXOP protection mechanism is obsolete. Consequently, the L-SIG TXOP protection mechanism might be removed in a later revision of this standard.”
          3. No objection. Mark ready for motion.
       5. CID 5159 (EDITOR)
          1. Table 8-20 defined the values in decimal, but with no names. The text referenced the values with binary. This made it hard to match, with certainty.
          2. Propose adding a name column to the table, continuing to define the values in decimal. Change the text to use the names.
          3. Also agreed to fix up the capitalizations.
          4. Agreed to limit the changes to fixing up the binary references, and not wordsmith the sentences that use them.
          5. Make sure NOTEs are renumbered as needed.
          6. Other uses of binary: “unsigned binary” should be “unsigned integer”. Integer is a concept, binary is a display representation.
          7. Noted that we might not need to say this at all (that values are encoded as unsigned integers, when the range requires them to be non-negative integers), but that is outside the scope of this comment.
          8. If we also split the ToDS and From DS columns, we can address CID 5188 at the same time.
          9. Proposed Resolution: REVISED. Make changes under CID 5159 in 11-15/758r3. In addition, split the “ToDS FromDS” field column into two columns, the leftmost being “To DS”, the rightmost being “From DS”, and split the bits in this order into these two columns. These changes address the issue reported in the comment, and make other fixups to uses of the term “binary”.
          10. No objection. Mark ready for motion.
          11. CID 5158 (MAC): resolution: REVISED: Make changes under CID 5159 in 11-15/758r3. In addition, split the “ToDS FromDS” field column into two columns, the leftmost being “To DS”, the rightmost being “From DS”, and split the bits in this order into these two columns.
          12. No objection. Mark ready for motion.
          13. CID 6718 (EDITOR) is also related, but is more complicated. Mark Rison agreed to be assigned this one.
       6. CID 6282 (EDITOR):
          1. We’ve discussed this, and didn’t reach a decision. On research, noted that V.42 uses terms like “opening flag”. Otherwise, our definition appears to be mathematically the same as theirs.
          2. “IEEE 32-bit CRC” appears to only have references to 802.3. 802.3 defines it with the same polynomial, but the description is different enough to cause uncertainty.
          3. Proposal: 8.2.4.8 in our document is our definition. Note that this is from V.42.
          4. Reviewed changes to accomplish this proposal.
          5. Discussed the aside change that Youhan noted and emailed to Adrian (at 2270.33). There is some debate if the RSSI referenced at P2232L46 (note reference correction to Adrian’s document) is really the same RSSI. Decided this was off the topic of the comment, and controversial, so don’t make this change.
          6. Agreed to remove from the resolution the changes related to WEP and ICV, as we’re not sure they are correct, and WEP is deprecated.
          7. Agreed we don’t need a date on V.42. Style is to not put a date unless we have need to reference a specific version, and nobody is aware that we need to do that here.
          8. Proposed resolution: REVISED: make changes under CID 6282 in 11-15/758r3. These changes remove any reference to external 32-bit CRC specifications from within normative 802.11 text, plus other related non-normative tidy-ups related to the 32-bit CRC.
    4. **Comment resolution, document 11-15/762r3**
       1. CIDs 6562, 6563 and 6075
          1. Not ready yet, but have some concepts to be discussed to get direction.
          2. Noted that changes in 8.2.4.1.7 and 10.2.3.4 apply only to IBSS, by context.
          3. Noted that adding ATIM as a frame that can carry the PS bit, is a new technical behavior. (QoS) Null carrying PS bit appears to be more of an interpretation/clarification of the existing text.
          4. Objection to adding the new semantics for setting dot11BSSBroadcastNullCount to zero, to mean using the individually addressed mechanism.
          5. Concern that adding the ATIM idea will mean existing implementations won’t understand this new behavior and won’t work.
          6. Make sure we are allowing the combination of both individually addressed and group-addressed methods. Right now there is an “or” in the text, which could be assumed to not be exclusive.
          7. Mark Rison has his feedback, and will work on these further.
       2. CIDs 6214, 6215, 6216, 6305, 6306 (several about confusing terminology)
          1. Mark Rison presented his analysis of this “zoo”. Left as an off-line exercise to those whom are interested.
    5. Recess 3:30pm
17. **Minutes for 802.11 TGmc** REvmc BRC for Tuesday 14 July 2015 PM1 –
    1. **C**alled to order by Dorothy STANLEY (HP/Aruba) 1:31pm
    2. Review Patent Policies
       1. No Issues identified
    3. Review agenda from 11-15/0726r3 slide 3
18. 11ad comment resolution, 11-15/538, 11-15/920
19. CID 6058 – Mike MONTEMURRO
20. MAC CID – Mark HAMILTON
    * 1. Request for Comment Resolution in PM1 Thurs for 11-15/555
      2. No objection to the agenda
    1. Review doc 11-15/538r2, Solomon TRAININ (Intel)
       1. Clarifications to sub clause 9.38.7 Beam tracking to resolve CID 5010
       2. R2 has changes that were walked through, but they were not highlighted.
       3. Proposed Resolution: CID 5010 - CID 5010: REVISED (MAC: 2015-07-14 23:46:50Z): Incorporate the text changes as shown in 11-15/0538r3. (Expand the document reference to a full URL, once it is posted.)
    2. Review doc 11-15/920r0 Payam TORAB (Broadcom)
       1. The document is submitted as proposed resolution to CID 3263(MAC-Done), CID 5989 (MAC), CID 5005 (MAC), CID 5006 (MAC), CID 5007 (MAC), CID 5008 (MAC), and CID 5009 (MAC – Done) .
       2. Question on DWS… should be DMGWS…
       3. The list of CIDs has two that have potential issues – 3263 is old CID from WG LB, so it not included.
          1. CID 5009 was motioned, but we want to update the CID with a resolution to use 11-15/920 instead of 11-15/256r1.
       4. Question on Doze – is it RX or TX vs RX and TX.
          1. What is difference with OFF, Doze, Awake?
          2. Discussion
          3. Decision is to make both the Awake and Doze would be “and” in the description.
       5. Question on the addition of tables that reflect the verbiage in text.
          1. The tables were there before, and they reflect the text and provide an easy reference to understand the Doz/Awake states.
       6. In a Note, we do not include Shall or may in Notes, but we can include “can” in Notes.
          1. Discussion on the use of “can” – decided to leave “can”
       7. Discussion on 10.2.6.2.4 – no additional change made
       8. Chart to show how the BI Start Time field is used could be drawn to help, but not included in the submission right now.
          1. Suggestion to include a figure to help understand in the future
          2. The text block is too dense, consider breaking the block of text up
       9. Missing element associated with CBAP – original text issue, not for this document.
          1. This may have been fixed in the other submission
          2. The fix may be in the submission from Solomon
       10. Discussion on AID - 10.2.6.4
           1. How to match the AIDs with the address of the STA not clear
           2. See page 13in R1 for updates
       11. CID 5009 had been resolved with motion 126 – will update with this resolution.
       12. The Proposed Resolution: CID 5989 (MAC), CID 5005 (MAC), CID 5006 (MAC), CID 5007 (MAC), CID 5008 (MAC), and CID 5009 (Editor ): Incorporate the text changes in 11-15/920r1.
       13. No objection – Mark All the CIDs ready for motion.
       14. URL to be fixed up.
    3. CID 6058
       1. Review comment
       2. Proposed Resolution: Accept
       3. No objection, Mark Ready for Motion
    4. Recess at 3:24pm
21. **Minutes for 802.11 TGmc** REvmc BRC for Tuesday 14 July 2015 PM2 –
    1. **C**alled to order by Dorothy STANLEY (HP/Aruba) 4:04pm
    2. Review Patent Policies
       1. No Issues identified
    3. **Review agenda** (11-15/726r2 Slide 3)
       1. Tuesday PM2
          1. Comment resolution
          2. Security CIDs, 11-15-769, 11-15-763 - Dan HARKINS (Aruba Networks)
          3. MAC CIDs – Mark HAMILTON (Ruckus)
          4. 15 mins: CID 5940 –11-15-908 - Sigurd SCHELSTRAETE (Quantenna),
       2. No objections
    4. **Comment resolution, document 11-15/763r1 –** Dan Harkins (Aruba Networks)
       1. Left off at CID 6455 on teleconferences.
       2. CID 6394 (MAC)
          1. Proposed to reject this one.
          2. Suggestion to add a NOTE, instead of rejecting:
             1. "NOTE---For example, if individually addressed MSDUs with TID 0 and 3 have been transmitted to a receiver whose number of replay counters per PTKSA is 2, then MSDUs with other TIDs are not transmitted to that receiver for the lifetime of the PTKSA (typically the association, unless rekeying is invoked)."
          3. Straw Poll: Resolve CID 6394 as 1) Rejected see 1917.02; 2) Insert the NOTE above. Results: 1: 2 2: 2 Abstain: 3.
          4. No consensus to make a change. So, take the default of REJECTED.
          5. Proposed Resolution: REJECTED: The text at 1917.02 is clear.
          6. No objection. Ready for motion.
       3. CID 6393 (MAC)
          1. Proposed resolution is REJECTED.
          2. Think we discussed this in Vancouver; Jouni was willing to look at the alignment between CCMP and GCMP (we think).
          3. Mark as submission required, and assigned to Jouni, for now.
       4. CID 6576 (MAC)
          1. Dan would like to reassign this to Mark R.
          2. Agreed. Reassign to Mark Rison.
       5. CID 6293 (MAC)
          1. PSK isn’t sufficiently secure
          2. Why not?
          3. There are cracking capabilities available, including “services” on the web.
          4. Agreed that use of a large, long, randomly generated string for the password will significantly help.
          5. But, SAE is not susceptible to the cracking flaw.
          6. Concern that this is going too far, telling people that PSK is not secure, and we need to be very careful with our messaging.
          7. The text as written is confusing. Does “secure” apply to “PSK”?
          8. Translate to two sentences: “A STA performing secure password-based authentication uses SAE authentication.” OR “A STA performing secure PSK authentication uses SAE authentication.”
          9. This is a much bigger discussion.
          10. There is some technical debate about whether PSK is secure, or what “is secure” even means. How secure is “secure”?
          11. Straw Poll: Resolve CID 6293 as: 1) Accept; 2) Reject; 3) Abstain
          12. Results: 1: 1 2: 2 Abstain: 8.
          13. Suggestion to add “secure” before the word “PSK”, and delete the commas.
          14. Straw Poll: Support for this change as the resolution to the comment? Yes: 7 No: 3 Abstain: 2.
          15. Some would be okay with some wording that talked about SAE, without making any statement or implication about the security of existing PSK. Others feel that the current PSK is not secure, and we could or should say so.
          16. Security is a relative issue. Could there be a compromise that some methods provide better security than others?
          17. Suggestion: Reject the comment, on the basis that PSK is widely recognized as subject to dictionary attacks, with reference to information available on the web.
          18. Proposed Resolution: REJECTED: Off-line dictionary attacks of PSK are widely known. See: <Dan to provide an example web site.>
          19. No objections. Mark ready for motion.
       6. CID 6358 (MAC)
          1. Review Comment
          2. Propose to accept the comment. But, we need to pick one of the suggested changes.
          3. Go with the “Otherwise, the” method.
          4. Proposed Resolution: REVISED. Move lines 39-42 [Note to editor, line 44 was deleted by another comment] to line 63, and change “A” to “Otherwise, the” at the front of it.
          5. No objection. Mark ready for motion.
       7. CID 6512 (MAC)
          1. Review Comment
          2. Proposed Resolution: Accept.
          3. No objection. Mark ready for motion.
       8. CID 6412 (MAC)
          1. Review Comment
          2. Proposed Resolution: Accept.
          3. No objection. Mark ready for motion.
       9. CID 6359 (MAC)
          1. Review Comment
          2. Proposed Resolution: REVISED. Move the identified text to the end and precede it with “Otherwise, the”. Also change the “an” on line 41 (“an SMK”) to “the”.
          3. No objection. Mark ready for motion.
       10. CID 6513 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       11. CID 6276 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       12. CID 6275 (MAC)
           1. Review Comment
           2. Reviewed 11-15/764r3 changes.
           3. Proposed Resolution: REVISED. Incorporate changes as shown in 11-15/764r3 in section 11.6.1.7.3.
           4. No objection. Mark ready for motion.
       13. CID 6277 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       14. CID 6278 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       15. CID 6106 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       16. CID 6521 (MAC)
           1. Review Comment
           2. Proposed Resolution: Accept.
           3. No objection. Mark ready for motion.
       17. CID 6190 (MAC)
           1. Review Comment
           2. Does “FT security association” appear anywhere else in the text? Can’t find another one.
           3. An FT security association is really just a PTKSA, and a GTKSA. And, an IGTKSA if using protected management frames.
           4. Proposed Resolution: REVISED. Replace “FT Security Association” with “PTKSA, GTKSA and, if management frame protection is enabled, an IGTKSA”
           5. No objection. Mark ready for motion.
       18. CID 6421 (MAC)
           1. Review Comment
           2. Proposed Resolution: REVISED. Make the changes as indicated in 11-15/764r4 for section 11.7.9.
           3. No objection. Mark ready for motion.
       19. CID 6183 (MAC)
           1. Review Comment
           2. Proposed Resolution: REVISED. Make the changes as indicated in 11-15/764r3 for clause 13.
           3. No objection. Mark ready for motion.
       20. CID 6511 (MAC)
           1. Review Comment
           2. Proposed Resolution: REVISED. Make the changes as indicated in 11-15/764r3 for clause 13.
           3. No objection. Mark ready for motion.
       21. CID 5062 (MAC)
           1. Review Comment
           2. Would like to add a “C” (language) prototype for the function.
           3. Assigned to Mark Rison.
    5. **Comment resolution, document 11-15/908r1** Sigurd SCHELSTRAETE (Quantenna)
       1. CID 5940 (GEN)
          1. Reviewed analysis in document.
          2. Feedback on this paper has been agreement that this number is correct, if we ignore other MAC limitations. But, nobody was interested in investigating all the possible MAC limitations. So, propose to go with this number, with a note that some MAC restrictions may have been ignored.
          3. Why not put the (current) number in the table? Or at least in the NOTE.
          4. Should we fix the HT PHY, too?
       2. CID 5866 (MAC)
          1. Out of time.
    6. Recess at 6:00 pm.
22. **Minutes for 802.11 TGmc** REvmc BRC for Wednesday 15 July 2015 PM1 –
    1. Called to order by Dorothy STANLEY (HP/Aruba) 1:32pm
    2. Review Patent Policies
       1. No Issues identified
    3. **Review agenda** (11-15/726r4 Slide 3)
       1. Wednesday PM1
          1. Motions: Editorialsspeculativelyedited, MAC-AQ
          2. Comment resolution – 11-15-897, Location CIDs, Carlos ALDANA (Qualcomm)
          3. Editorials – Adrian STEPHENS (Intel)
          4. 15 mins: 11-15-769, Dan HARKINS (HP/Aruba)
       2. No objections to agenda
    4. MOTION #138:
       1. Approve the comment resolutions in
          * The “Motion MAC-AQ” tab in 11-15/0565-09
          * The “Editorialsspeculativelyedited” in 11-15/0532r10

And incorporate the indicated text changes in to the TGmc draft.

* + 1. Moved: Adrian STEPHENS; Seconded: Edward AU
    2. Discussion: Mark Rison requested to pull CIDs:
    3. Motion to amend 138: “except for CIDs 5140, 6126, 6695, 6840, 6839, 6348, 6834, 6586, 5235, 6047, 6691.

Moved: Mark RISON; Seconded: David HUNTER

* + - 1. Discussion: Reviewed these when they came out, about a week ago. But a few objections remain, and the group should be able to hear those objections.
      2. Question on why are these being requested to be pulled?
      3. CID 6348: -- should be consistent about uppercase and lowercase. But, discovered it is not on the tab being moved.
      4. CID 6834: This is not a good resolution, as it is only a promise for future work.
      5. We could pass these now, and everyone (anyone) could review off-line, and bring back any concerns.
         1. Yes, but wouldn’t we rather deal with it now, than have to bring it back up again?
         2. We do say “Editor do x …, Editor do y…” in our resolutions. This one is similar. It is asking the Editor to check a FrameMaker behavior.
      6. **Results (on motion to amend):** Yes: 6 No: 6 Abstain: 4 **Motion FAILS**
      7. **Results (on #138):** Yes: 10 No: 3 Abstain: 3  **Motion Passes**
  1. **Comment resolution, document 11-15/897r0**: Carlos ALDANA (Qualcomm)
     1. CIDs 5179 (MAC), 5185 (MAC), 6283 (MAC)
        1. Review Comment
        2. Deleted “NOTE TO” in front of “EDITOR” (throughout)
        3. Proposed Resolutions for CIDs 5179 (MAC), 5185 (MAC), 6283 (MAC): REVISED. Incorporate the text changes as shown under CIDs 5179, 5185, 6283 in document 11-15/897r1.
        4. No objection. Ready for motion.
     2. CID 6244 (MAC)
        1. Review Comment
        2. Porposed Resolution: ACCEPTED
        3. No objection. Ready for motion.
     3. CID 6316 (MAC)
        1. Review Comment
        2. Porposed Resolution: REVISED. Incorporate the text changes as shown under CID 6316 in document 11-15/897r1.
        3. No objection. Ready for motion.
     4. CID 5049 (MAC)
        1. Review Comment
        2. Presented the same resolution as we discussed before. What else needs to be done?
        3. Don’t need definitions of “RF chain” if we just say “transmit chain” in the cited location, and similar places, and define that.
        4. Comment: An implementation can implement a transmit chain any way it wants to (that accomplishes the RF). Why specify these details? Need to be sure there is only one radiation point and consistent time from the baseband to the antenna, to keep measurements consistent.
        5. There is also “transmit RF chains” at P1418, in a NOTE.
        6. This has become more than an Editorial comment.
        7. There are definitions in DMG that are similar, or could be leveraged.
        8. Will consider off-line and bring back.
     5. CID 6354 (MAC)
        1. Review Comment
        2. The Editor requests that changed text be done very carefully by taking a copy of the baseline text, and then making changes with Track Changes turned on. In the past, comment resolutions have not been clear, because what was claimed to be baseline text didn’t actually match.
        3. “… it indicated” isn’t very clear. Can we say how it is indicated? But, there is only way to indicate it, so this is not ambiguous.
        4. Proposed Resolution: REVISED. Incorporate the text changes as shown under CID 6354 in document 11-15/897r1.
        5. No objection. Ready for motion.
     6. CID 6356 (MAC)
        1. Review Comment
        2. There is an ASAP capable bit. No STA can be incapable of ASAP=0.
        3. Discussion.
        4. Straw Poll: I support the resolution of rejected. Yes: 11 No: 1 Abstain: 4
        5. Proposed Resolution: REJECTED; While some responding STAs might not be able to do ASAP=1, some responding STAs might not be able to do ASAP=0 either. The present language in the spec of “should” is sufficient to account for both ASAP=0 and ASAP=1 cases. If the initiating STA does not like the choice made by the responding STA, the initiating STA can send an FTM Request frame with the value of the Trigger field set to 0 to end the FTM session. In addition, if the responding STA accepts the ASAP=0 request, the responding STA can choose any PTSF value that is allowed by its current resource scheduling. The responding STA may not be able to accommodate the ASAP=0 request at the requested PTSF value. If the initating STA’s PTSF value is not met when ASAP=0, the initiating STA might likely end the FTM session anyways.
        6. No objection. Ready for motion.
     7. CID 5182 (MAC)
        1. Review Comment
        2. “Shall not before” is hard to test.
        3. What does it mean if the STA never terminates the FTM? Is That is okay?
        4. Reword to clarify the “before the time”… Actually, it’s okay.
        5. Proposed Resolution REVISED. Incorporate the text changes as shown under CID 5182 in document 11-15/897r1.
        6. No objection. Ready for motion.
     8. CID 5339 (MAC)
        1. Review Comment
        2. Proposed Resolution: ACCEPTED.
        3. No objection. Ready for motion.
     9. CID 6243 (MAC)
        1. Review Comment
        2. Proposed Resolution: REJECTED; Format and Bandwidth is too genertic. In addition, the VHT Operation element has “VHT Operation Information” field. Similarly, the HT Operation element has “HT Operation Information” field.
        3. No objection. Ready for motion.
     10. CID 6417 (MAC)
         1. Review comment
         2. Editorial nit – please show this as a change (since there is baseline text included)
         3. Do we need to say something about FTM1? Struggle with “non-initial” being applied to Fine Timing Measurement frame (as opposed to FTMR). Suggest adding “except for the initial Fine Timing Measurement frame in the ASAP=0 case”.
         4. REVISED. Incorporate the text changes as shown under CID 6417 in document 11-15/897r1.
         5. No objection. Ready for motion.
  2. Review of Editorial review/discuss items – doc 11-15/758r3 Adrian STEPHENS
     1. CID 6584 (EDITOR)
        1. Review Comment
        2. Related to CIDs 5311, 5319, 6707.
        3. Jumped to CID 6707
     2. CID 6707 (EDITOR)
        1. Review Comment
        2. Proposed adding some conventions text at the start of the Subelements clause (8.4.3).
        3. Proposed Resolution: REVISED. Incorporate changes as shown in 11-15/758r4 under CID 6707.
        4. No objections. Ready for motion.
     3. Back to CID 6584 (EDITOR), and CIDs 5311, 5319
        1. Proposed Resolution for CID 6584, 5311, and 5319: REVISED. Incorporate changes as shown in 11-15/758r4 under CID 6707.
        2. No objections. Ready for motion.
     4. CID 6713 (EDITOR)
        1. Review Comment
        2. Proposed Resolution: Revised; Make changes under CID 6713 in 11-15/758r4, which makes changes according to the principle indicated by the commenter.
        3. No objection. Mark ready for motion.
     5. CID 5308 (EDITOR)
        1. Review Comment
        2. We’ve talked about this in principle. Submission has the details.
        3. Redefining common language like this in one place, can cause unexpected problems elsewhere – a general worry. However, the alternative is to miss the “value of” or similar wording in a few of the thousands of usage, which is worse.
        4. What about the use of the word “should” in this? Can we avoid that? Could change “should be” to “is”
     6. Out of time, switched to Security topic.
  3. Document 11-15/769r1, Ganesh VENKATESAN (Intel Corporation)
     1. Review the problem in hunting-and-pecking loop
     2. To protect the algorithm, it was suggested that the looping continue, even after the solution is found, so the duration of the algorithm doesn’t give away information. But, when this was added, it wasn’t conditioned to prevent the further loops from writing the result variables.
     3. This document adds a conditional to protect the variables.
     4. Also adds correction to prevent an element being equal to p-1
     5. Also corrects that legendre cannot return 0
     6. Editorial points: “rand” “mask” should be in italics (in “rand + mask”), and both the “r”s. Don’t need “one (1)”, just say “1”, and similar. Change “prime number minus one (p – 1)” to “prime number p minus 1”, with p in italics.
     7. Out of time.
     8. Will consider this for motion tomorrow.
  4. Recess at 3:32pm

1. **Minutes for 802.11 TGmc** REvmc BRC for Wednesday 15 July 2015 PM2 –
   1. Called to order at 4:00pm by Dorothy STANLEY (HP-Aruba)
   2. Review Agenda – 11-15/726r5
2. 11-15/0516r4 Graham SMITH CCA 11b
3. CIDs 595911-15/653 & , 5960, 11-15/654 Matt FISCHER
4. Continue with Editorial Comment resolution
   * 1. Approve agenda without objection
   1. Review Doc: 11-15/0516r4 Graham SMITH
      1. Subject: CIDs related to CCA 11b
      2. CID 5011 (GEN)
      3. Review Document –
      4. Notes on editorial errors
         1. Clause 17 – need to add in 17.3.8.5 – “, and CCA shall maintain the busy report at least while the high rate PPDU with energy above the ED threshold is being received at the antenna.” (This was mostly the same as what was deleted)
      5. Concern on the technical change
         1. Detecting CCA for the start or middle is different and may be a change
         2. The added text is already there in an earlier page.
         3. Discussion on “at the antenna”
         4. Concern on “maintaining” word being added
      6. Response, this document is updating technical issues.
         1. Existing clauses could be ambiguous as the old PHY clauses indicated the detection of the preamble, you are not required to detect in the middle of the PPDU
         2. The history does not suggest “mid-packet” detection.
         3. Concern on changing the word “while”, and this is because if you start to detect, then you should hold until the end of the packet.
      7. Concern that if the preamble is detected, then you should hold the CCA, and this should be made unambiguous, and separate the aCCATime and the CCA being detected.
      8. The DSS PHY does do mid-packet detect.
         1. CCA is not a signal, but a trigger
         2. Suggestion “…shall not report an idle medium at least while the high rate….”
      9. Need to drop the “the start of a” in 16.4.6.5.
         1. Desire to have minimum change from this submission, and not repeat any statements that are elsewhere…
         2. The words “shall maintain…” are the words being objected to because it is in other section.
         3. Disagreement on the change
      10. Can we identify the point at which the aCCATime starts?
          1. See page 534 – D4.0
          2. Discussion the aCCATime definition and start and duration time.
      11. Request to back out the changes that were offered in 17.3.8.5, and allow Graham to revise and clean up some other editorial issues and present on Thursday PM2.
   2. Review CID 5959 (MAC) – Doc 11-15/653r2 Matthew FISCHER (Broadcom)
      1. This issue comes from last year and has been long process.
      2. The revisions have been made over the course of a long history of presentation and discussion.
      3. Main change from last time was changing an “\*” to “x” (multiplication) in an equation.
      4. Review the document – giving an highlight of changes
      5. Q&A –
         1. Is this optional or not? – - response – optional
      6. Proposed resolution: Revised – Incorporate the changes in 11-15/653r2.
      7. Request to have a motion at this time.
         1. **Motion #139** – CID 5959
            1. Resolve CID 5959 as “Revised” with a resolution of “Incorporate the text changes in 11-15/653r2”
            2. Moved: Mathew Fischer 2nd: Michael Montemurro
            3. **Results: 28-0-5 – Motion Passes**
   3. Review CID 5960, 11-15/654r7 Matt FISCHER (Broadcom)
      1. Review document state (was 11-14/793)
      2. Review comment
      3. Review proposed changes outlined in the document
      4. Q&A
         1. Some have similar concerns from before – no question – same concerns
         2. Question on new AP and how it will respond to legacy STA?
            1. If the AP signals fewer capabilities to legacy STA, then other STA may not know the AP was capable of better capabilities.
            2. Because there is a Channel Width field and the Dynamic Extended NSS BW, it allows for a combination of information to be indicated to both the legacy and the new STAs.
         3. Discussion on the supported rates and how to indicate that in this case
         4. In the case of advertising 80 to legacy and 160 to the New STAs and the legacy OBSS may think that they AP is only supporting 80 and they won’t realize that the AP is using the full 160.
            1. The ability to support 160 for the BSS and having the AP support 80 in the legacy case is how the OBSS is told the full 160 is supported.
         5. More discussion on the case and the capabilities advertisement.
         6. Request for some more offline discussion and have a motion tomorrow.
      5. Schedule to have this document come up again on Thursday PM2.
   4. Return to discussion on 11-15/758r5 Adrian STEPHENS (Intel Corporation)
      1. Continue with Editorial Comment resolution – All CIDs in this section are in the EDITOR group of CIDs
      2. CID 5308
         1. Review where we left off
         2. Change “should” to “is to” in the interpreted statements.
         3. All the CIDs in the document would then have the same Resolution
         4. Proposed Resolution: Incorporate the changes in 11-15/758r5 under CID 5308
         5. The list of CIDs with this resolution: 5358, 5361, 5365, 5833, 5838, 5839, 5840, 5841, 5842, 5844, 5845, 5848, 5312, 5313, 5315, 5316, 5317, 5320, 5321, 5353, 5374, 5386, 5410, 5420, 5425, 5432, 5435, 5437, 5439, 5447, 5449, 5451, 5452, 5453, 5454, 5455, 5456, 5457, 5458, 5459, 5460, 5467, 5470, 5472, 5476, 5502, 5514, 5515, 5517, 5519, 5520, 5532, 5564, 5618, 5644, 5649, 5655, 5658, 5670, 5678, 5685, 5686, 5688, 5692, 5696, 5701, 5702, 5703, 5707, 5708, 5709, 5710, 5711, 5712, 5715, 5716, 5717, 5718, 5720, 5721, 5723, 5724, 5725, 5727, 5736, 5739, 5740, 5741, 5743, 5744, 5745, 5750, 5751, 5752, 5753, 5754, 5765, 5769, 5772, 5776, 5780, 5781, 5786, 5788, 5789, 5790, 5794, 5803, 5808, 5813, 5814, 5817, 5818, 5819, 5828, 5829, 5851, 5852, 6805
         6. No objection – Mark all of these CIDs ready for motion
      3. CID 5837
         1. Review Comment
         2. Proposed Resolution: Revised - Insert in 1.4: (at 2.57) “ If <x> represents a SAP primitive:

-- "<x> indicates" is to be interpreted as though written "the (or an) invocation of <x> indicates".

-- "indicated by <x>" is to be interpreted as though written "indicated by the (or an) invocation of <x>"

* + - 1. This resolution applies to CIDs: 5837, 5730, 5742, 5757
      2. Question, on why this option was taken if only 4 instances were pointed at – this was to avoid a future problem.
    1. Editorials for Discussion
       1. CID 5536
          1. Review Comment
          2. Editor indicated that “assume” makes the text seem odd.
          3. Discussion on the proposed change
          4. Is the current text incorrect? – No, but seemed hard to read.
          5. Proposed Resolution: Reject – The text is correct…
          6. There was a call for volunteers to work with David HUNTER on a different resolution.
          7. **ACTION ITEM**: assign CID to Mark RISON and David HUNTER
       2. CID 6862
          1. Review comment
          2. Review IEEE Style manual equations
          3. Variables should be in italics, but words are to be in Roman, but it does not say what is happening when you use Variable words.
          4. Commenter indicated he had worked with the Editor and after discussion would be willing to withdraw the comment.
          5. Proposed Resolution: REJECTED (EDITOR: 2015-06-24 13:12:08Z) - The IEEE-SA Style guide states that words are set in Roman type.
          6. No objection – mark ready for motoin
       3. CID 6863
          1. Review comment
          2. The commenter did have a discussion with the Editor, and is willing to have this one rejected as well, but would like to see a rationalization of the units in the equations.
          3. Discussion on the fact that there is a “where” description that shows that the units do work out.
          4. Proposed Resolution: REJECTED (EDITOR: 2015-06-24 13:17:02Z) - The IEEE-SA Style guide states that words are set in Roman type. It is not necessary to embed units in equations as proposed
          5. No objection - Mark Ready for Motion
       4. CID 6867
          1. Review comment
          2. Review Style Manual
          3. Commenter indicated he had worked with the Editor and after discussion would be willing to withdraw the comment.
          4. Proposed Resolution: REJECTED (EDITOR: 2015-06-23 09:55:31Z) - SNR is an abbreviation and should therefore be upright. (The IEEE-SA style guide uses "SNR" as an example of an acronym that should be "Roman" text.)
          5. No objection - Mark Ready for Motion
       5. CID 6868
          1. Review comment
          2. Review Style Manual
          3. Commenter indicated he had worked with the Editor and after discussion would be willing to withdraw the comment.
          4. Proposed Resolution: REJECTED (EDITOR: 2015-06-23 09:58:22Z) - The IEEE-SA style guide states that whole words and abbreviations are upright.
          5. No objection - Mark Ready for Motion
       6. CID 6843
          1. Review comment
          2. Review Style Manual
          3. Commenter indicated he had worked with the Editor and after discussion would be willing to withdraw the comment.
          4. Proposed Resolution: REJECTED (EDITOR: 2015-06-22 14:34:32Z) - According to the IEEE Style guide, only the "i" is required to be italics.
          5. No objection - Mark Ready for Motion
       7. CID 6844
          1. Review comment
          2. The reference has already been inserted, but it was inserted incorrectly as references are for normative text.
          3. Discussion on the need to have the reference to IEEE Std 260.1-2004.
          4. Question on do we need to add a sentence in Normative Text that cites it then we could add it.
          5. Debate that the units used should be referenced to a consistent standard to define the units used.
          6. Straw Poll for CID 6845:

Reject the comment as shown:

Results: 5-2-7

Suggest we reject comment

* + - * 1. Proposed Resolution for CID 6845: Reject - As explained at the start of Clause 2, normative references may only be present if cited explicitly from normative text. There is no such citation, and the insertion in Clause 2 is therefore incorrect.
        2. Proposed Resolution for CID 6844: Reject – it is not necessary to add IEEE 260.1 as a normative reference, because this is essentially instructions to the standard writer not the implementer of the standard.
        3. No objection - Mark Both CIDs Ready for Motion
  1. Time –
  2. Quick review of Plan for Thursday
  3. Recess at 6:01pm

1. **Minutes for 802.11 TGmc** REVmc BRC for Thursday, 16 July 2015 PM1 –
   1. Called to order by Dorothy STANLEY (HP/Aruba) at 1:30pm
   2. Review patent policy
      1. No issues
   3. Review Agenda – see doc 11-15/726r6

Comment resolution –

1. 11-15/828r0 - Peter ECCLESINE (Cisco)
2. 11-15/555 Mark HAMILTON (Ruckus)
3. CID 5049 – 11-15/897r1 Carlos ALDINA (Qualcomm)
   * 1. Review agenda for PM1 and PM2, and – approved without objection
   1. Review doc 11-15/828r0 – Peter ECCLESINE (Cisco)
      1. CID 5314 (MAC)
         1. Review Comment
         2. After review it is seemed that the comment is correct.
         3. Proposed Resolution: Accept
         4. No objection – mark ready for Motion
      2. CID 5535 (MAC)
         1. Review Comment
         2. Proposed Resolution: Revised. At 1637.19 (at the end of 10.8.3 after the para) add:

“If a STA sends a Country element, a Power Constraint element, and a Transmit Power Envelope element, where the interpretation of the Maximum Transmit Power Level field in the Country element for a 20 MHz or 40 MHz Subband Triplet field is the same as the Local Maximum Transmit Power Unit Interpretation subfield, then at least one of local power constraints indicated by the Local Maximum Transmit Power For 20 MHz and Local Maximum Transmit Power For 40 MHz fields in the Transmit Power Envelope element

shall be the same as the indicated local power constraint expressed by the combination of Country element and Power Constraint element.”

* + - 1. No objection – Mark ready for Motion
    1. CID 5556 (MAC)
       1. Review Comment
       2. Proposed Resolution: Accept
       3. No objection – Mark Ready for Motion
    2. CID 5589 (MAC)
       1. Review Comment
       2. Proposed Resolution: Accept
       3. No objection – Mark Ready for Motion
    3. CID 5971 (GEN)
       1. Review Comment
       2. Review proposed change, but it is not complete, and need some more time to complete the added sections At 1320.50 insert: 9.21.3a Operation with multiple country elements and At 2720.44, add: “MD16 Operation with multiple country elements
       3. Discussion on the direction of the plan to add the two subcluases
    4. CID 5973 (GEN)
       1. Review comment
       2. Review discussion
       3. Proposed resolution: REVISED (GEN: 2015-07-17 00:06:11Z) At 3343.01 (after sentence) add: “Note that some of the operating classes in this table were never used and are obsolete. The obsolete operating classes indicated by an asterisk (\*) might be removed in a future revision of the standard.”

At 3343.21 in the “Operating class” column an asterisk after classes as shown: 2\*, 4\*, 5\*, 7\*, 9\*, 10\*, 12\*, 14\*, 15\*, 16\*, 18\*, 19\*, 21\*, 23\*, 24\*, 27\*, 28\*, 35\*, 38\*, 40\*, 43\*, 45\*, 47\*, 48\*, 49\*, 50\*, 52\*, 53\*, 54\* and 55\*.

* + - 1. The reason that the redundant lines were due to some columns that were removed in the past.
      2. An Asterisks being added to indicate the “Operating Class” that are going to be marked as obsolete – the PICs does not use an Asterisks to do this. This is only being done here in this table.
      3. No objection to the proposed resolution: - Mark ready for Motion.
    1. CID 6319 (EDITOR)
       1. Review Comment
       2. Proposed Resolution: Revised:

At 666.37, replace “class that includes a value of 13 or 14 in the behavior limits as specified in Annex E,” with “class that includes a value of PrimaryChannelLowerBehavior or PrimaryChannelUpperBehavior in the behavior limits as specified in Annex E,”.

At 666.40, replace “does not include a value of 13 or 14” with “does not include a value of PrimaryChannelLowerBehavior or PrimaryChannelUpperBehavior”.

At 890.13, replace “a value of 13 or 14” with “a value of PrimaryChannelLowerBehavior or PrimaryChannelUpperBehavior”.

At 891.09, 891.15, 891.19 and replace “value 16:” with “value DFS\_50\_100\_Behavior:”.

At 1649.17, replace “**behavior limits set of 16**” with “**behavior limits set of DFS\_50\_100\_Behavior**”.

At 1649.21, replace “includes the value 16;” with “includes the value DFS\_50\_100\_Behavior;”.

At 1694.18, replace “if the Behavior Limit parameter of the selected row contains the value 13” with “if the Behavior Limit parameter of the selected row contains the value PrimaryChannelLowerBehavior”

At 1694.21, replace “selected row contains the value 14” with “selected row contains the value PrimaryChannelUpperBehavior”.

At 1694.24, replace “selected row contains neither the value 13 nor the value 14” with “selected row contains neither the value PrimaryChannelLowerBehavior nor the value PrimaryChannelUpperBehavior”.

At 3331.07, delete the “Encoding” column from Table D-2.

At 3352.43 , replace “STAs operating under the behavior limits set 17” with “STAs operating with a behavior limits set value of ITS\_nonmobile\_operations”.

* 1. CID 5969 & 5970 (MAC) – Peter ECCLESINE
     1. Review comments
     2. Review ITU-R radar 4 specification
     3. Discussion on Channel Switch methodologies for detection and switching
     4. There will be some comments to address the CID in the future.
     5. Assign both CIDs to Peter ECCLESINE
  2. Review doc:11-15/555r4 Mark HAMILTON (Ruckus Wireless)
     1. Discussion on bringing Annex R into the normative text.
     2. Review Figure R-1 changes – updated diagram
     3. Discussion on the changes to the diagram
        1. In the title, the word “architecture” should be lower cased
        2. In 1603.16 (10.3.6) update reference to the new clause when moving Annex R.
        3. This will become clause 7 and this will force a renumbering of all the subsequent clauses.
        4. When we add this, we will need to remove the place holders, so all the PHY clauses will move.
        5. The reason for why the “DS” box is below the PHY layer as it indicates that it has a MAC/PHY of its own, and to be able to show a relative position and it has to be below the Portal as it is offering a service.
        6. DS SAP not pointed out explicitly in the figure, but in words it is indicated that the lines are the DS SAP in this case.
        7. Request to review a way to indicate the DS SAP
     4. Would expect to bring to the September and have ARC final review and motion in REVmc
  3. CID 5049 – doc 11-15/897r1 Carlos ALDINA (Qualcomm)
     1. Review comment
     2. CID 6330 was already accepted – check resolution
     3. Review Transmit chain diagram
     4. Review proposed change in 10.24.6
     5. Q/A
        1. In 1418.62, there is a “transmit RF chain” in the note that should be “transmit chain”.
        2. Propose to update the document to include this change and repost to mentor as an R2.
     6. Proposed Resolution: Revise Incorporate the change in 11-15/897r2
     7. Note that this CID had a previous resolution that had been prepared but was pulled from a motion.
     8. No objection – mark ready for new motion
  4. Review doc 11-15/758r5 Adrian STEPHENS (Intel)
     1. CID 5536
        1. Review proposed Change – p1637.23 –clause 10.8.4
        2. Takes a very long sentence and makes it more readable.
        3. Proposed Resolution: Revised: Replace cited sentence at 1637.23 with the following:

“As regards the units of the Minimum Transmit Power Capability and Maximum Transmit Power Capability fields within the Power Capability element sent in a STA’s (Re)Association Request frame to an AP, if all of the following apply

• the STA is extended spectrum management capable

• the STA has dot11SpectrumManagementRequired or dot11RadioMeasurementActivated equal to true

• a Beacon or Probe Response frame has been received from the AP by the STA

• the Beacon or Probe Response frame includes one or more Transmit Power Envelope elements

then

• the units shall be interpreted according to the Local Maximum Transmit Power Unit Interpretation subfield in the Transmit Power Information field in the Transmit Power Envelope element (see 8.4.2.161 (Transmit Power Envelope element)) sent first in the most recently received Beacon or Probe Response frame

otherwise

• the units shall be interpreted as EIRP.

* + - 1. No objection - Mark ready for motion.
    1. Review a set of CIDS that can be rejected in 11-15/758r5
       1. CIDs 6848, 6850, 6853, 6854
       2. Proposed Resolution Wording is in 11-15/758r5
       3. No objection -- Mark 4 CIDs Ready for Motion.
    2. Review set of CIDs that have a Revised resolution proposed in 11-15/758r5
       1. CIDs 6855, 6856, 6857, 6858
       2. Proposed Resotutions are in 11-15/758r5
       3. No objection Mark Ready for Motion.
    3. CID 6859
       1. Review Comment
       2. Proposed Resolution: Accept
       3. No objection Mark Ready for Motion.
    4. Next section Editorials for Review
    5. CID 5235
       1. Review Comment
       2. Discussion on the proposed change
       3. Side discussion about use of “\*Activated” MIB attributes, and what text is needed around them."
       4. Proposed Change: Revised. Change first sentence at 1709.21 to “A STA with dot11OCBActivated equal to true shall not join or start a BSS” and delete the para at 1709.26.
       5. No objection - Mark ready for motion
    6. CID 5357
       1. Review comment
       2. Review figure 8-226
       3. Add a “Name” column to 8-97
       4. Proposed Resolution: Revised. Add “Name” column to Table 8-97. Copy “IETF RFC 4776” and move “Vendor Specific” from the Description into this name column.

Globally change “RFC 4776-2006” to “RFC 4776”.

In reply to the commenter, The replacement of a "named value" by a numeric value, plus the name in parentheses, goes against the principle that the TG prefers of only defining the encoding in one place.

* + - 1. No objection - Mark ready for motion
    1. CID 5994
       1. Review comment
       2. Review figure 11-43
       3. Proposed Resolution: Accept.
       4. No objection mark ready for motion
    2. CID 6193
       1. Review Comment
       2. Review table 8-324
       3. Review P1153.32 –
       4. Should it be frame or field?
          1. There are usage with both, but technically this instance should be “frame”
          2. More discussion on frame vs field …
  1. Time was called
  2. Recess at 3:30pm

1. **Minutes for 802.11 TGmc** REVmc BRC for Thursday, 16 July 2015 PM2–
   1. Called to order by Dorothy STANLEY (HP/Aruba) at 4:01pm
   2. Review patent policy
      1. No issues noted
   3. Review Agenda: 11-15/726r7
2. Motions (Editorial, 11-15-0769, 11-15-0516r5, 11-15-0654)
3. 11-15-938-Payam
4. Plans for September, Schedule
5. AOB, Adjourn
   * 1. No objection to following the agenda.
   1. **Motion 140** (Thursday)
      1. Approve the comment resolutions in

The “Editorials-rfm”, “rfm - cid5837” and “rfm - cid 5308” tabs in <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-11-000m-revmc-sponsor-ballot-comments.xls>

and incorporate the indicated text changes into the TGmc draft.

* + 1. Moved Adrian STEPHENS 2nd Edward AU
    2. No discussion
    3. **Result: 43-0-1 – Motion Passes**
  1. **Motion 141** (SAE Corrections)
     1. Incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-0769-02-000m-correcting-a-mistake.docx>
     2. Moved: Dan HARKINS 2nd Sean COFFEY
     3. **Discussion** –
        1. Question on if the document was ready for motion.,
        2. Were there any changes made since shown on screen
           1. There is an “=” sign and a “}” that was added since last presented
        3. Question on a change that needed to be made. – at least some changes were not ready for motion is the contention
           1. File was discussed previously and we have a motion to accept the document now, and the motion is now up for discussion
     4. Result 47-1-0 Motion passes.
  2. Review Doc 11-15/0516r5- Graham SMITH
     1. This document has been presented before, but we have some minor changes to review prior to motion.
     2. Review table changes – Energy detect and CCA-CS for respective clauses
     3. The existing text while not aligned perfectly with the new PHY Clauses, the changes proposed are minimal make a CCA Mode 6: which requires energy above -62dbm be detected.
     4. So we make a minimal change in this version of the proposal to either use the existing text or a single line for the second option which would be the CCA Mode 6.
     5. Question on the changes in the MIB –
        1. Issue on a missing space on 62dBm (two places)
        2. Issue on changing energy detect only (edonly)
     6. Question on the values used in the enumeration in the dot11Current CCAMode.
     7. After correcting the minor errors, the document was posted as an R6.
  3. **Motion #142**
     1. Resolve CID 5011 as “Revised” with a resolution of “Incorporate the text changes in 11-15/516r6: [https://](https://mentor.ieee.org/802.11/dcn/15/11-15-0516-04-000m-cca-for-clauses-16-17-and-19.docx)[mentor.ieee.org/802.11/dcn/15/11-15-0516-06-000m-cca-for-clauses-16-17-and-19.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0516-06-000m-cca-for-clauses-16-17-and-19.docx) “
     2. Moved: Graham SMITH 2nd: Mike MONTEMURRO
     3. Discussion:
        1. Concern that the rules in the 11b were changed, but maybe not enough on the other areas.
        2. 11a and 11ac section that CCA is based on Preamble only, need to include initial packet detection.
        3. The beginning of the preamble should be used rather than somewhere in the middle.
        4. Several spoke in favor of revision R4.
        5. Mode 4 and 5 was added because it was missing.
        6. Support on getting a baby step of improvement, and this does that in a minimalistic change
        7. The thresholds are what are being addressed in this proposal, and the other changes needed should be left for another comment.
        8. Discussion on pre-amble detection and if the detection is being done on the whole packet
        9. All speakers are correct, but there are two different issues, one is the threshold and one on the point of detection.
     4. **Results: 20-20-8 Motion Fails**
  4. **Motion #143** - CID 5960
     1. Resolve CID 5960 as “Revised” with a resolution of “Incorporate the text changes in [https://mentor.ieee.org/802.11/dcn/15/11-15-0654-08-000m-lb1000-cid5960-nss-support-partitioning.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0653-02-000m-cid5959-est-throughput-enhancements.docx) “
     2. **Moved:** Matthew FISCHER 2nd: Allert VAN ZELST
     3. Discussion for clarification prior to 2nd:
        1. This document is to add a couple bits to signal number of streams based on bandwidth.
           1. Lots of reviews and readings, should be ready for decision
        2. Question on VHT Channel Bandwidth vs what is advertised.
        3. Statement on more work may be required.
           1. There is the issue of the AP may have bandwidth or the STA has a bandwidth limit and the BSSS may have a different bandwidth
        4. Concern on having a lengthy discussion on many of the technical issues, but on page 10, Note 3 – should be normative, but assertion is that it is not correct.
        5. MIB Detail, there is some other problem possible.
     4. Discussion after 2nd:
        1. There is concern that this is a new mode being added.
        2. A rebuttal that this is actually a backward compatible mode, and should be ok.
        3. Having this operation of being able to handle 2 spatial stream support in 80 and single stream support in 160, and so we can have this in the standard or it may happen outside the standard. We should look to make the change in the standard to be formalized to avoid propriety modes.
     5. **Results: 32-17-3 Motion Fails**
  5. Review doc: 11-15/938r0 Pyam TORAB
     + 1. Review Document
       2. Some Editorial errors were fixed as identified and an R1 will be posted.
       3. General statement needed in the new clause to introduce the clause.
       4. Discussion on the difference in DMG and BSS Power management mode
       5. Scheduled and unscheduled Powersave mode discussed.
       6. Need to check the reference to 8.2.4.1.7 that may be a circular reference.
       7. Add something similar to “The absence … indicates all devices are in active mode.”
       8. More discussion on possible duplicate sentence causing confusion on page 5
       9. Concern about having “Shalls” in the General section.
       10. Pyam will take feedback and update the draft and bring back later.
  6. Continue Review doc 11-15/758r5 Adrian STEPHENS (Intel)
     1. Return to discussion on CID 6193.
     2. CID 6193 (EDITOR)
        1. Review Context and previous discussion
        2. Proposed Resolution: Accept
        3. No objection mark ready to Motion
     3. CID 6197 (EDITOR)
        1. Review Comment
        2. Review context in D4.0
        3. Proposed Resolution: REVISED (EDITOR: 2015-06-23 10:07:18Z) - For "Link Identifier row append " and not present otherwise" to the Notes.

For "Multi-band", "AID" , "VHT Capabilities", and “Operating Mode Notification” rows append "and the Status Code is SUCCESS and not present otherwise" to their Notes.

* + - 1. No objection mark ready for Motion
    1. CID6248 (EDITOR)
       1. Review comment
       2. Discussion on the value of having the sentences left in Clause 4.
       3. Possible change in Clause 4:

At 105.06, delete: “The robust Management frames are Disassociation, Deathentication, and robust Action frames.”

At 105.06, delete: "Action frames specified with “No” in the “Robust” column of Table 8-46 (Category values) are not robust Management frames and are not protected."

* + - 1. Straw Poll:
         1. Delete 105.06 and move 105.05

Results: 1-2-8

Abstain Wins

* + - 1. Proposed Resolution: REVISED –

At 1947.16, delete: "Action frames with “No” in the “Robust” column in  
Table 8-46 (Category values) shall not be protected."

* + - 1. No objection – mark ready for motion
    1. Return to CID 6193
       1. Concern that TDLS Action fields are in Data Frames
       2. Anything with “Action” thing is a field.
       3. See 1153.32 – for reference and discussion
       4. There may be two ways to reference the same item.
       5. In review of the cited location, either “field” or “frame” seem equivalent.
       6. The change was to change “Action Field” to “Frame” not just “field” to “Frame”
  1. Planning:
     1. **Conference calls 10am Eastern 2 hours**
        1. July 31, August 7, 14, 28,
     2. **Ballot Resolution Committee meeting – Cambridge UK August 19-21**
        1. Let Jon know if coming
        2. Teleconference during the F2F mtg will be arranged**.**
     3. **Schedule review**
        1. Stretch goal for Recirc in Sept may move to Nov
        2. Move Final approval to June (WG/EC final approval move to March)
  2. Adjourned at 5:57pm

**References:**

**Monday:**

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-01-000m-tgmc-agenda-july-2015.pptx>

[**http**](file:///C:\Users\jr05\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\I9LB4W7T\http)[**://www.ieee802.org/11/email/stds-802-11/msg01475.html**](http://www.ieee802.org/11/email/stds-802-11/msg01475.html)

**Approved prior meeting minutes:**

1. <https://mentor.ieee.org/802.11/dcn/15/11-15-0523-00-000m-revmc-minutes-for-may-vancouver.docx>
2. <https://mentor.ieee.org/802.11/dcn/15/11-15-0771-00-000m-revmc-brc-telecon-minutes-june-26.docx>
3. <https://mentor.ieee.org/802.11/dcn/15/11-15-0739-02-000m-revmc-brc-telecon-minutes-may-june.docx>
4. <https://mentor.ieee.org/802.11/dcn/15/11-15-0742-01-000m-revmc-brc-minutes-for-june-portland.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0095-23-000m-editor-reports.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0758-02-000m-sb0-stephens-resolutions-part-1.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0762-03-000m-resolutions-for-some-comments-on-11mc-d4-0-sbmc1.docx>

Tuesday PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-03-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0538-03-000m-beam-tracking-clarification-cid5010.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0538-02-000m-beam-tracking-clarification-cid5010.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0920-00-000m-dmg-power-save-corrections.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0920-01-000m-dmg-power-save-corrections.docx>

Tuesday PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-02-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0763-02-000m-dnh-security-comment-spreadsheet.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0763-01-000m-dnh-security-comment-spreadsheet.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0764-05-000m-resolution-of-some-security-comments.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0908-01-000m-discussion-of-cid-5940.docx>

Wednesday PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-04-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0565-09-000m-revmc-sb-mac-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-10-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0897-00-000m-sb-location-related-comment-resolutions-part-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0897-01-000m-sb-location-related-comment-resolutions-part-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0758-03-000m-sb0-stephens-resolutions-part-1.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0796-00-00ak-gcr-comments-resolutions-part-2.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0796-01-00ak-gcr-comments-resolutions-part-2.doc>

Wednesday PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-05-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0516-04-000m-cca-for-clauses-16-17-and-19.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0653-02-000m-cid5959-est-throughput-enhancements.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0654-07-000m-lb1000-cid5960-nss-support-partitioning.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0758-05-000m-sb0-stephens-resolutions-part-1.doc>

Thursday PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-06-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0828-00-000m-sb0-ecclesine-resolutions.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0555-04-0arc-normative-ds-sap-proposal.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0897-01-000m-sb-location-related-comment-resolutions-part-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0897-02-000m-sb-location-related-comment-resolutions-part-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0758-05-000m-sb0-stephens-resolutions-part-1.doc>

Thursday PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-06-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0726-07-000m-tgmc-agenda-july-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-11-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0769-02-000m-correcting-a-mistake.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0516-05-000m-cca-for-clauses-16-17-and-19.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0516-06-000m-cca-for-clauses-16-17-and-19.docx>

[https://mentor.ieee.org/802.11/dcn/15/11-15-0654-08-000m-lb1000-cid5960-nss-support-partitioning.docx](https://mentor.ieee.org/802.11/dcn/15/11-15-0653-02-000m-cid5959-est-throughput-enhancements.docx)

<https://mentor.ieee.org/802.11/dcn/15/11-15-0938-00-000m-unscheduled-power-save-for-dmg.docx>