IEEE P802.11  
Wireless LANs

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| REVmc BRC Minutes for Interim Sept - Bangkok | | | | |
| Date: 2015-09-17 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdahl | CSR Technologies Inc. a Qualcomm Company | 10871 N 5750 W  Highland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |

Abstract

This document contains the minutes for the 802.11REVmc BRC during the 802 Wireless Interim held at the Centara Hotel, Bangkok, Thailand – 14-17 September 2015.

Note: Motion numbers in the form PBx (Procedural motion Bangkok #x) are procedural in nature, while integer Motion numbers are specifically the number assigned to motions used for resolving comments.

1. **Minutes for 802.11 TGmc** REvmc BRC for Monday 14 Sept 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-Qualcomm); Editor: Adrian STEPHENS (Intel); Co-Editors: Edward AU (Marvel) & Emily QI (Intel)
   3. **Review Patent Policies** 
      1. No Issues identified
   4. **Review Agenda** for week: doc:*11-15/0980r1* – slide 3
      1. Monday PM1
2. Chair’s Welcome,
3. Status,
4. Review of Objectives,
5. Approve agenda,
6. Approve previous minutes
7. Editor’s Report
8. Comment resolution:

* 11-14-1142, 0828 Peter ECCLESINE,
* 11-15-1018, 1019 Stephen MCCANN,
* 11-15-1010 Adrian STEPHENS
  + 1. Monday PM2

1. Comment resolution:

* 11-15-1037 Graham SMITH
* CID 6334 – Dan HARKINS
  + 1. Tuesday PM1

1. Comment resolution:

* 11-15-1090 – Sigurd SCHELSTRAETE
* 11-15-1010 – Adrian STEPHENS
  + 1. Tuesday PM2

1. 11ad comment resolution:

* 11-15-938,
* 11-15-1040,
* 11-15-1041 – Carlos CORDEIRO
  + 1. Wednesday PM1

1. Motions
2. Comment resolution –

* 11-15/1124: CIDs 5177, 6049, 6419 , Ganesh VENKATESAN
* 11-15/1072: Resolution to CID (5860) – Carlos ALDINA, to be presented by Naveen
* 11-15/1163: No preference Partial TSF - Ganesh VENKATESAN
* 11-15/910 - High Resolution FTM –Amichai and Carlos (to be presented by Alecs)
* 11-15/1073: Additional Located related clarifications to 4.2 Draft – Carlos (to be presented by Naveen)
* RM Capability + Neighbor Report + FTM - Ganesh VENKATESAN
  + 1. Wednesday PM2

1. Comment resolutions:

* 11-15-0516 - CA 11b -Graham SMITH C
* CIDs 5960 - Matt FISCHER
* 11-15-1022, 1023, 1024, 1025 Matt FISCHER

1. Additional CIDs as time permits
   * 1. Thursday PM1
2. Comment resolutions:

* 11-15/1147r1 Menzo Wentink
* ARC Topics
  + 1. Thursday PM2

1. Motions
2. Comment resolution –

* 11-15/1132 Jouni MALENI;
* MAC and GEN CIDs

1. Plans for November,
2. Review Schedule
3. AOB,
4. Adjourn
   * 1. **Motion PB1:** *Approval of Agenda*

Approve agenda in11-15/980r2

* + 1. Moved: Stephen MCCANN 2nd Emily QI
    2. No objection – unanimous approval – **MOTION PASSES**
  1. **Review Objectives**
     1. Operate as the Ballot Resolution Group for P802.11-REVmc
     2. Resolve comments from Sponsor ballot
  2. **Approve Minutes from Prior Meetings**:
     1. 11-15/980r2 (see slide 8)
     2. **Motion PB2:** *Approval of Minutes*

Approve prior meeting minutes in following documents

* July Waikoloa Interim minutes:
  + <https://mentor.ieee.org/802.11/dcn/15/11-15-0743-00-000m-revmc-brc-minutes-for-july-waikoloa.docx>
* Telecon Minutes:
  + <https://mentor.ieee.org/802.11/dcn/15/11-15-0974-02-000m-tgmc-teleconference-minutes-july-31-and-aug-07.docx>
  + <https://mentor.ieee.org/802.11/dcn/15/11-15-1009-00-000m-2015-08-14-tgmc-telecon-minutes.docx>
  + <https://mentor.ieee.org/802.11/dcn/15/11-15-1020-00-000m-tgmc-teleconference-minutes-aug-28.docx>
* August BRC Cambridge F2F minutes:
  + <https://mentor.ieee.org/802.11/dcn/15/11-15-0993-02-000m-revmc-brc-minutes-for-f2f-aug-cambridge.docx>
    - 1. Moved: Adrian Stephens, 2nd Edward AU
      2. No objection to unanimous approval – **MOTION PASSES**
  1. **Editor Report – doc:*11-15/95r24* –** Adrian STEPHENS
     1. Review Editor Report –
     2. Status of the comment processing and editing explained
     3. Draft 4.2 has most of the speculative edited comments
     4. CID 5959 – pending input from Matthew Fischer – no one in the room knew of the status, Adrian to ping again for updated status on feedback.
     5. Questions:
        1. Format for the Elements changes for the new vs old style elements.
        2. Use of the old style requires a WG motion
     6. Summary – about 1900 CIDs total, about 900 left – 440 are MAC, 159 Gen and the remainder are Editor
        1. Note 400 technical comments have been approved
     7. Lots of good work done – thanks for all the efforts
  2. **Review Doc**: ***11-15/1142r0*** Peter ECCLESINE
     1. CID 6405 (MAC)
        1. Review comment
        2. Review proposed changes
        3. Proposed resolution: REVISED (MAC: 2015-09-14 07:03:11Z): Insert at the end of the first paragraph of 8.4.2.162, "Procedures related to the inclusion of subelements in the Channel Switch Wrapper element are defined in 10.40.4 (Channel switching methods for a VHT BSS)."
        4. No Objection – Mark Ready for Motion
  3. **Review Doc**: ***11-15/0828r1*** Peter ECCLESINE
     1. CIDs 5969, 5970 and 5972 (all MAC):
        1. Proposed resolutions added to R1 for 5969,5970 and 5972
        2. Review comments
        3. Proposed resolution: CIDs 5969 (MAC) and 5970 (MAC): REVISED (MAC: 2015-09-14 07:09:31Z): Make changes as shown for CIDs 5969 and 5970 in 11-15/0828r1 (<https://mentor.ieee.org/802.11/dcn/15/11-15-0828-01-000m-sb0-ecclesine-resolutions.docx>) which adds a new mode to indicate a future channel change."
        4. Discussion – Radar detection rules and if you do not hear from the master, then you have to stop transmitting by a given duration defined on a given channel. Discussion on what the rules and the duration of when Channel switch announcements are given and when operation has to change.
        5. Not all the Chanel Switch elements were captured, there are new changes that need to be added – there may need more text to discuss the reserved values that are being used in this change
        6. How does the AP bring along the connected STAs was discussed.
        7. A rule should be added to not use “2” when the AP has sent a 0 or 1 before.
        8. More discussion needed to resolve this,
     2. CID 5972 (MAC)
        1. Similar comment, same issues to resolve later
     3. CID 5971 (GEN)
        1. Review comment
        2. Proposed Resolution: Revised.

*At 1320.50 insert:* 9.21.3a **Operation with multiple country elements**

Where a BSS includes STAs that do not support global operating classes, then all requests and Action frames to those STAs that convey elements containing operating classes shall use nonglobal operating class values. Where a BSS includes STAs that support global operating classes, then all requests and Action frames to those STAs that convey elements containing operating classes shall use global operating class values.

When dot11OperatingClassesImplemented is true, the following statements apply:

— When dot11OperatingClassesRequired is false, or where operating classes domain information is not present in a STA, that STA is not required to change its operation in response to an element or element-specific Information field that contains an operating class.

— When dot11OperatingClassesRequired is true and the STA supports some global operating classes, or where global operating classes domain information is present in a STA, the STA shall indicate current operating class information in the Country element and Supported Operating Classes element using the country string for the global operating classes, except that a VHT STA may omit, from the Country element, any Operating Triplet field for an Operating Class for which the Channel spacing (MHz) column indicates 80 MHz or wider and for which the Behavior limits set column in the applicable table in Annex E contains only a blank entry or either or both of “80+” and “UseEirpForVHTTxPowEnv.”

*At 2730.54, insert:* “OC8 Operation with multiple country elements 9.21.3a OC1:O Yes  No  N/A 

* + - 1. Discussion – This is a new subclause?
         1. Yes, and one of the sentences is the same.
         2. Adjust the editor instructions to make it clear which are instructions
      2. Discussion on the language as is includes passive voice and should be changed to fit the style of the standard language
      3. The condition when this feature is used, should be clear
      4. More work on the resolutions needs to be done.
    1. Will take comments and feedback and make a new revision
  1. **Review doc:*11-15/1017r0*** Stephen MCCANN
     1. CID 5072 (MAC)
        1. Review Comment
        2. Proposed Resolution – Agreed-
        3. Changes are shown in the document that will occur with the agreement.
        4. Obviously changes in detail are shown, so this would be a revised.
        5. Review the changes made as outlined in the document
        6. Some additional corrections were necessary and that will require an R1 be created and posted.
        7. Proposed resolution: CID 5072 (MAC): REVISED (MAC: 2015-09-14 07:42:33Z): Incorporate the text changes as shown in 11-15/1017r1 (https://mentor.ieee.org/802.11/dcn/15/11-15-1017-01-000m-proposed-resolution-to-cid-5072.docx). These changes implement the resolution direction suggested by the commenter.
  2. **Review doc: *11-15/1018r0*** Stephen MCCANN
     1. CID 6759 (GEN)
        1. Review comment
        2. Document was confusing with Proposed Resolution and Proposed Change and not underlining the inserted text. So this will need to be corrected in a new revision of the document.
        3. Discussion on if the printable requirement or does the IETF RFC give guidance on what the string format is when non-printable.
        4. Concern on the discussion of what the URL format is described.
        5. The thing that is stored is a UTF-8 is defined, and then how to use this as a separate discussion, but that is not within the scope of the standard.
        6. Proposed Resolution: Revised – The “Certificate ID” itself does not need to be printable ASCII. The Standard does not need to describe how this is used to perform a web look-up. At 924.37 delete the sentence starting “The Certificate ID…”
        7. More discussion on the validity of the example and the voice that this paragraph is using.
        8. Assigned Identifiers – passive voice and it hides who assigns the identifier.
        9. Should we include which group is assigning the identifier? (WFA)
        10. Then if other groups use this then they would be non-compliant…
        11. Ran out of time - - pickup when we revisit this comment later.
  3. Recess at 3:30pm a count was taken at the hour mark attendance was 22.

1. **Minutes for 802.11 TGmc** REvmc BRC for Monday 14 Sept 2015 PM2 –
   1. Called to order by Dorothy STANLEY (HP/Aruba) 4:00pm
   2. Reminder of Patent Policy – No issues noted
   3. Review Agenda for the slot – see 11-15/0980r2 slide 3
      1. Monday PM2:

Comment resolution:

11-15-1037 Graham

CID 6334, 6333, 6332 – Dan Harkins

* + 1. Added 11-15/654 to Wednesday PM2
  1. **Comment resolution – Dan Harkins**
     1. CID 6334 (MAC):
        1. 11ad did add item 8, creating confusion about what is now 3 different defaults.
        2. Suggestion is to change item 8 to look like item 4, but for DMG STAs.
        3. Proposed Resolution: REVISED (MAC: 2015-09-14 09:14:45Z): For Suite type 8, in the Meaning column, replace "default" with "default pairwise cipher suite and default group cipher suite for Data frames in an RSNA"
        4. No objection. Ready for motion.
     2. CID 6333 (MAC):
        1. Add “for a non-DMG STA” to the end of item 4.
        2. REVISED (MAC: 2015-09-14 09:19:39Z): For Suite type 4, in the Meaning column, insert "for a non-DMG STA" at the end.
        3. No objection. Ready for motion.
     3. CID 6332 (MAC):
        1. We think that the default is used if the matching field is not provided in the RSNE.
        2. Jouni and Dan will craft text off-line and bring back.
  2. **Review doc *11-1037r1*** – Graham SMITH
     1. CID 5193 (MAC)
        1. Review comment
        2. Proposed Resolution: Accept.
        3. In checking the reference we laugh at the issue that 10.1.1 refers back to 10.1 which is a circular reference. – Something to comment on later.
        4. No Objection – Mark Ready for Motion
     2. CID 5194 (MAC)
        1. Review comment
        2. CID 6536 is related and is being addressed by Mark RISON.
        3. After looking at CID 6536 it is not related.
        4. Proposed Resolution: Accept
        5. No Objection – Mark Ready for Motion
     3. CID 5195 (MAC)
        1. Review comment
        2. Discussion on “independently”
        3. Does the cited text imply multiple APs in a device.
           1. No,
           2. The case is that the cited sentence is correct.
           3. The concern is if a controller starts up multiple APs then we do not want to have all the STAs within the APs use the same TSF timer value
        4. Proposed Resolution: REJECTED (MAC: 2015-09-14 09:41:49Z): The cited sentence is correct in that the intention is to randomize the TSFs even when multiple APs may be started simultaneously, for example in an enterprise controller deployment.

NOTE: Editor to consider adding a comma after 'respectively'.

* + - 1. No Objection – Mark Ready for Motion
    1. CID 5196 (MAC)
       1. Review comment
       2. Proposed resolution: Accept
       3. No Objection – Mark Ready for Motion
    2. CID 5198 (MAC)
       1. Review comment
       2. Proposed change is to change the cited text to a note
       3. Is the last sentence covered by the preceding list of 7 conditions?
       4. More info is wanted to determine if this is covered or not.
       5. More review will occur, and brought back later.
       6. ACTION ITEM #1: Graham to check with the commenter for more information.
    3. CID 5199 (MAC)
       1. Review comment
       2. Proposed Resolution: REVISED (MAC: 2015-09-14 10:01:27Z): Make changes as shown in 11-15/1037r2 (https://mentor.ieee.org/802.11/dcn/15/11-15-1037-02-000m-resolutions-for-more-assigned-comments-gs.docx) for CID 5199.
       3. No Objection – Mark Ready for Motion
    4. CID 5200 (MAC)
       1. Review comment
       2. Review the proposed changes and discussion
       3. Extra “DMG”s have been removed in the past, so concern about adding extra “DMG” if not warranted.
       4. The first cited location may be the only change needed.
       5. Discussion on the way to change the sentence took several minutes.
       6. Proposed Resolution: REVISED (MAC: 2015-09-14 10:16:58Z): Start the cited sentence with, "An active DMG STA operating in a BSS shall be ready to receive from its AP or PCP for a period of time of at least dot11MinBHIDuration ..."
       7. No Objection – Mark Ready for Motion
    5. CID 5201 (MAC)
       1. Review Comment
       2. Multiple BSS support by PCP?
       3. VLANs for security boundary reasons, may use more than one PBSS.
       4. Multiple BSS are usually due to different VLANs, security, or some other purpose, but it may be possible.
       5. Managing VLANs when you have access to the Data. PBSS may be involved in the Data, and can provide a relay to the network without advertising
       6. Management within a PBSS is not the same as in the IBSS and we would have to fill in details that do not exist.
       7. Discussion on how the PBSS includes elements and how it is related to Mulitple BSS beacons – this is a combination of sending the Beacons jointly to save sending extra ones.
       8. Multiple BSSID is an AP that supports multiple networks, and in the DMG case multiple PBSSs if the device is the controlling device.
       9. Proposed Resolution: REJECTED (MAC: 2015-09-14 10:37:49Z): There are applications for multiple BSSID use in PBSSs. For example, a single device with multiple PCPs supporting different peer groups.
       10. No Objection – Mark Ready for Motion
    6. CID 5202 (MAC)
       1. Review Comment
       2. The context of when the element will come is point of confusion
       3. The comment is about the TSF Timer
       4. Suggest to reject the comment
       5. Proposed Resolution: REJECTED (MAC: 2015-09-14 10:52:17Z): The cited sentence describes use of the TSF and is in a section that relates to TSF timer behavior.
       6. No Objection – Mark Ready for Motion
    7. CID 5204 (MAC)
       1. Review Comment
       2. Active Scan use was discussed
       3. What is the result code that should be returned was discussed?
       4. Ran out of time
  1. Recess at 6:00pm – a count was taken at the hour mark attendance was 15.

1. **Minutes for 802.11 TGmc** REvmc BRC for Tuesday 15 Sept 2015 PM1 –
   1. **Called to order** by Dorothy STANLEY (HP/Aruba) 1:30pm
   2. **Reminder of Patent Policy** – No issues noted.
   3. **Review Agenda** for the slot – 11-15/980r3
      1. Move Siguard to Thursday PM2
      2. 11-15/1010 Adrian and 11-15/1037 Graham
      3. Add Stephen 1018,1019
      4. Request to Add Matthew Fischer to Wednesday PM2
      5. Request for objection to the Agenda changes was made
      6. No objection to the Agenda modified as noted and will be in R4
   4. **Review Doc:11-15/1010r9** Adrian STEPHENS
      1. An R10 will be posted with the changes captured during this slot.
      2. CID 5046 (GEN)
         1. Has been resolved in the Cambridge F2F in August.
         2. Will be moved to the agreed location
      3. CID 6235 (MAC)
         1. Review comment
         2. Request by Mark RISON to be get assignment
         3. Mark Submission Required and assign to Mark RISON
      4. CID 5024 (MAC)
         1. Similar to CID 6289
         2. Assign to Mark RISON and mark Submission required
      5. CID 6577 (MAC)
         1. Review Comment
         2. Proposed Resoliution: Rejected. Uses are described for this Ack Policy for the two cases of bit 6. One covers the “no immediate ack” case, the other covers the “PSMP” case. In the case of bit 6 being zero, this ack policy is used for “QoS CF-Poll and QoS CF-Ack +CF-Poll Data frames” as described at 575.43.
         3. No Objection – Mark Ready for Motion
      6. CID 6461 (MAC)
         1. Review Comment
         2. Proposed Resolution: Revised. At 575.63, change “The recipient can expect a BlockAckReq frame in the future” to “The recipient can expect a BlockAckReq frame or implicit block ack request in the future”
         3. No Objection – Mark Ready for Motion
      7. CID 6101 (MAC)
         1. Review Comment
         2. Proposed Resolution: Accept
         3. No Objection – Mark Ready for Motion
      8. CID 5119 (MAC)
         1. Review Comment
         2. Proposed Resolution: Rejected. The cited statement is correct. Support for bandwidth signalling for VHT STAs is clearly indicated at 77.01. There is no need to add the requested limitation to VHT also at the cited location.
         3. Disagreement with Proposed Resolution – discussion on the reason and if the commenter’s request should be reconsidered.
         4. Straw Poll –
            1. A) Reject the comment or B) accept the comment

Review the cited sentence

It has been modified already (CID 5867)

The concern of the vagueness of the “STA” not being qualified.

As this section is in the RTS Frame, it is only describing what the the frame format is, not the use or which STA is sending it.

* + - * 1. Results of Strawpoll: A –4 B – 2
      1. Add to the Resolution “Also note that the cited text is in Clause 8 defining frame formats.”
      2. Continue with the Reject option – Mark Ready for Motion
    1. CID 5963 (MAC)
       1. Review Comment
       2. Mark this comment as submission required – Assign to Matthew Fischer
    2. CID 5962 (MAC)
       1. Review comment
       2. Mark this comment as submission required – Assign to Matthew FISCHER
    3. CID 5988 (MAC)
       1. Mark this comment as submission required – Assign to Payam TORAB
    4. CID 6252 (MAC)
       1. Review comment
       2. There is no size limit for the Max MPDU size, the size is limited by the MMPDU size.
       3. Proposed resolution: ACCEPTED (MAC: 2015-09-15 07:05:44Z)
       4. No Objection – Mark Ready for Motion
    5. CID 6055 (MAC)
       1. Review Comment
       2. Review proposed change
       3. Concern on the wording and if it is more clear or less clear.
       4. Not clear – will take offline and come back with another proposal
    6. CID 5979 (MAC)
       1. Review Comment
       2. Proposed Resolution: REVISED (MAC: 2015-09-15 07:13:04Z): Change "Capability" to "Capability Information" in Table 8-27, Table 8-29, Table 8-30, Table 8-31, Table-32, Table-8-34, Table 8-40.
       3. No Objection – Mark Ready for Motion
    7. CID 6351
       1. Review Comment
       2. “Status” in the table did not seem to be ambiguous, so only change the ones requested.
       3. Proposed Resolution: EVISED (MAC: 2015-09-15 07:15:24Z): At 640.10, 640.28 and 640.64 change "Status" to "Not REJECTED\_WITH\_SUGGESTED\_BSS\_TRANSITION"
       4. No Objection – Mark Ready for Motion
    8. CID 5083 (MAC)
       1. Review comment
       2. Missed adding an article need to be Revised.
       3. Proposed Resolution: REVISED (MAC: 2015-09-15 07:17:36Z): Replace "Status is" with "the Status Code field is" throughout this table.
       4. No Objection – Mark Ready for Motion
    9. CID 6343
       1. Review comment
       2. Proposed Resolution: REJECTED (MAC: 2015-09-15 07:19:09Z): There is no reason for Action No Ack to carry MIC or AMPE elements. The Action No Ack carries information such as beamforming that is of time critical but transient value. There is no need to cryptographically authenticate such data. The Action No Ack frame is not used for mesh peering exchanges, so the AMPE element is not present.
       3. No Objection – Mark Ready for Motion
    10. CID 6057 and 6336 (MAC)
        1. Review comment
        2. This is very similar to CID 6335, 6337, 6338, 6339 (are assigned to Carlos).
        3. Discussion on who should work on the comments
        4. **Straw Poll**:
           1. Do we want the elements listed, or a generic description such as above added?
           2. A: All listed out
           3. B: Add generic Description
           4. C: Reject Comment
           5. Results: A-2 -5-1
        5. There was a long discussion on who should be assigned the comments and how to resolve the comment
        6. The Context of the resolution and how it should be put in a table was discussed.
           1. Some not happy with the straw poll as the context was thought to be reversed – thought it was a paragraph not a table.
        7. Assign all 6 CIDs to Carlos CORDIERA
        8. Request to send feedback to Carlos to help resolve this.
    11. CID 6053 (MAC)
        1. Review comment
        2. Proposed Resolution: ACCEPTED (MAC: 2015-09-15 07:36:24Z)
        3. No Objection – Mark Ready for Motion
    12. CID 6247 (MAC)
        1. Review comment
        2. Proposed Resolution: ACCEPTED (MAC: 2015-09-15 07:37:19Z)
        3. No Objection – Mark Ready for Motion
    13. CID 6054 (MAC)
        1. Review comment
        2. Proposed Resolution: ACCEPTED (MAC: 2015-09-15 07:38:58Z)
        3. No Objection – Mark Ready for Motion
    14. CID 5980 (MAC)
        1. Review comment
        2. Proposed change: At 687.16: make marked changes “The BSS Type subfield is defined in Table 8-63 (The BSS Type subfield) for specific types of frame cited below. An AP sets the BSS Type subfield to 3 within transmitted DMG Beacon, Probe Response, or (Re)Association Response frames. A PCP sets the BSS Type subfield to2 within transmitted DMG Beacon, Probe Response, or (Re)Association Response frames. An IBSS STA or a STA that is not a member of a BSS sets the BSS Type subfield to 1 within transmitted DMG Beacon or Probe Response frames. The BSS Type subfield is undefined for all other types of frame.”
        3. Discussion on what values may be and if valid for different value combinations, what could be marked reserved or not. If we mark it undefined or reserved will it make implementations non-compliant.
        4. Question on what the implementation interop test found and how did they resolve the issue. –
        5. How are values to be interpreted? – can the AP ignore this field.
        6. Change from Undefined to Reserved in the proposed change.
        7. Proposed Resolution: REVISED (MAC: 2015-09-15 07:50:44Z): Make the changes as shown in 11-15/1010r10 (<https://mentor.ieee.org/802.11/dcn/15/11-15-1010-10-000m-revmc-sb0-stephens-resolutions-part-2.doc>) for CID 5980. This makes the subfield reserved in other combinations.
        8. No Objection – Mark Ready for Motion
    15. CID 5955 (MAC)
        1. Review comment
        2. Can we allow “reserved otherwise” rather than limit which Frame is limited.
        3. All the fields are explicit to VHT and TVHT.
        4. The TVHT rewrite rules will take care of the proposed change
        5. Proposed Resolution: REVISED (MAC: 2015-09-15 08:04:18Z): At 2675.38 delete "O" from the "Status" column.

At 1847.37, after "A VHT STA shall set dot11OperatingModeNotificationImplemented to true." add "A STA that is not a VHT STA shall set dot11OperatingModeNotificationImplemented to false."

* + - 1. No Objection – Mark Ready for Motion
    1. CID 6226 (MAC)
       1. Review comment
       2. Discussion on the problem of legacy fields
       3. The format of the Request Element is wrong for extended element – needs more work.
       4. Straw Poll:
          1. Option 1: ( Minimal change)
          2. Option 2: (Fully capable)
          3. Results: option 1-11 and Option 2- 1
       5. More work to be done – Check to see if extended elements are causing other issues.
       6. **ACTION ITEM #2**: Adrian to check changes and resolve and CID 5070 together.
       7. Assign to Adrian STEPHENS
    2. CID 6068 (MAC)
       1. Review comment
       2. Removing the “This string is not null terminated.” From clause 8 only.
       3. Discussion on if it is useful to have the string or not
       4. Discussion on consistency and if specific or general statements would be better solution.
       5. Are there Null terminated strings in the standard?
       6. Ran out of time
  1. Recess at 3:30pm – Attendance at the hour mark was 17.

1. **Minutes for 802.11 TGmc** REvmc BRC for Tuesday 15 Sept 2015 PM2 –
   1. Called to order by Dorothy STANLEY (HP/Aruba) 4:00pm
   2. Noted that the Patent Policy is still in place and a request for any IPR not subject to an LOA was made, and no items were identified.
   3. Review Agenda for the slot – 11-15/980r4
      1. No objection to proposed agenda
   4. Review doc: 11-15/1124r0 Carlos CORDIERO
      1. CID 5983 (GEN)
         1. Review Comment
         2. Proposed Resolution: REVISED (GEN: 2015-09-15 09:08:22Z) replace "start immediately with "be performed" at the cited location (1512.58)
         3. No Objection – Mark Ready for Motion
      2. CID 5122 (MAC)
         1. Review comment
         2. Commenter wants to withdraw the comment, but do not withdraw, but rather we reject the comment.
         3. Proposed Resolution: REJECTED (MAC: 2015-09-15 09:10:16Z): Fragmentation may be useful if the frame cannot fit within a TXOP Limit.
         4. No Objection – Mark Ready for Motion
      3. CID 5036 (MAC)
         1. Review comment
         2. The size of the field should be included – added to the proposed change
         3. Size of the Dialog Token field is already defined elsewhere – should a reference be included?
            1. All the other fields are defined by reference.
         4. Proposed Resolution: REVISED (MAC: 2015-09-15 09:19:20Z): Make changes as shown 11-15/1124r1 (<https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx>) for CID 5036. This adds a count field.
         5. No Objection – Mark Ready for Motion
      4. CID 5037 (MAC)
         1. Review comment
         2. Proposed Resolution: REVISED (MAC: 2015-09-15 09:23:27Z): Make changes as shown 11-15/1124r1 (<https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx>) for CID 5037. This adds a count field.
         3. No Objection – Mark Ready for Motion
      5. CID 6271 (MAC)
         1. Review comment
         2. Proposed Resolution: ACCEPTED (MAC: 2015-09-15 09:29:41Z)
         3. No Objection – Mark Ready for Motion
      6. CID 5040 (MAC)
         1. Review comment
         2. The frame format describes the fields
         3. Adding a column to the tables would undo changes were made before.
         4. Proposed Resolution: REVISED (MAC: 2015-09-15 09:35:51Z): Make changes as shown 11-15/1124r1 (<https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx>) for CID 5040. This adds a clear reference to the definition of the FSTS ID field.
         5. No Objection – Mark Ready for Motion
      7. CID previous ballot 3245
         1. **Discussion**: CID 3245 was not properly implemented in D4.1. Basically, there is just one field called TRN.
         2. – not resolved quite right – 21.10.2.2.6 Beam refinement TRN-R Field
            1. Request to drop “Beam refinement” and “-R” from the clause name and in the text.
         3. Change to 21.10.2.2.5 also needs to be done.
         4. Add a flag CID 3245 so that a motion can reference it for the motion.
            1. Dorothy to make a motion to cover this change.
      8. Another issue Figure 9-78 caption
         1. Need to change “I-MID” to “R-MID” in figure 9-78.
         2. The discussions were combined for this and the CID 3245 and a new label made “CID 3245 and figure 9-78 caption change”
         3. A TG Motion will be made that captures both issues.
         4. ACTION ITEM #3: Dorothy STANLEY – prepare a motion for consideration later this week.
   5. Review Doc: 11-15/1037r1 Graham SMITH
      1. CID 5204 (MAC)
         1. Review comment
         2. Review proposed changes and the context in d4.0
         3. Discussion on if indicating illegal or prohibitive is necessary to include.
         4. The insurer of the primitive should not issue something that is illegal.
         5. Need to do the delete in two places, or we could reword it a bit.
         6. Keeping the first and last sentence of 1538L11 but discussion on how to word the last sentence needed more work.
         7. More debate on if the sentences should be deleted or reworded.
         8. Changing at P1538L65 for the starting of an IBSS to be similar.
         9. Discussion on “some”
         10. After some wordsmithing, we agreed to text that will be in 11-15/1037r2
         11. Proposed Resolution: REVISED (MAC: 2015-09-15 10:15:27Z): Make changes as shown in 11-15/1037r2 () for CID 5204. These changes remove the shalls as requested by the commenter.
         12. No Objection – Mark Ready for Motion
      2. CID 5205 (MAC)
         1. Review comment
         2. Reference for SNAP encoding was done before, so this is similar reference and we should do the same type change.
         3. CID 6097 was similar
         4. Proposed Resolution: REVISED (MAC: 2015-09-15 10:20:10Z): Replace with reference to 802-2014. Note to editor, this change was also made in CID 6097.
         5. No Objection – Mark Ready for Motion
      3. CID 5206 (MAC)
         1. Review comment
         2. This was set this way due to step “c)” was “one” so “d)” then is correct to send “zero or more”…
         3. Determine to reject the comment.
         4. Proposed Resolution: REJECTED (MAC: 2015-09-15 10:26:27Z): The probe sent in step c satisfies the "active scan" classification, and so there is no requirement to send any additional probes in step d
         5. No Objection – Mark Ready for Motion
      4. CID 5207 (MAC)
         1. Review comment
         2. “In all these cases,” change to “In both cases” or “In either case” would be a simple change.
         3. Disagreement on the text version that is being reviewed. – D4.0 vs D4.2 and changes that were already made to this section.
         4. After review a new proposal on how to fix step f).
         5. Discussion – “In all these cases” refers to the 3 probe requests in step f)1.
         6. Minimal change – “In all these cases, the probe…” to “ In all probe requests sent under step f) 1), the probe…”
         7. Proposed Resolution: REVISED (MAC: 2015-09-15 10:41:47Z): Replace "these cases" with "probe requests sent under step f) 1)" at the cited location.
         8. No Objection – Mark Ready for Motion
      5. CID 5208 (MAC)
         1. Review comment
         2. Discussion on the double negative nature of the clause
         3. Note removing c) and d) could cause a flood of probe requests.
         4. Discussion determined that a reject of the comment would be best course of action.
         5. Proposed Resolution: REVISED (MAC: 2015-09-15 10:55:15Z): It so happens that multi-band capable non-AP STAs can respond to Probe Requests, so criterion a) 6) is needed. Criteria c) and d) further qualify when a multi-band capable non-AP STA may respond.
         6. No Objection – Mark Ready for Motion
      6. CID 5984 (MAC)
         1. Review comment
         2. Proposed Resolution: REJECTED (MAC: 2015-09-15 11:01:18Z): The stated maximum errors are correct.
         3. No Objection – Mark Ready for Motion
   6. Recess at 6:02pm – Attendance at the 1 hour mark was 12
2. **Minutes for 802.11 TGmc** REvmc BRC for Wednesday 16 Sept 2015 PM1–
   1. **Called to order** by Dorothy STANLEY (HP/Aruba) 1:30pm
   2. Noted that the **Patent Policy** is still in place and a request for any IPR not subject to an LOA was made, and no items were identified.
   3. **Review Agenda** for today’s slot –
3. 11-15-1162: CIDs 5177, 6049, 6419 , Ganesh VENKATESAN
4. 11-15-1072: Resolution to CID (5860) – Carlos, to be presented by Naveen KAKANI
5. 11-15-1163: No preference Partial TSF - Ganesh VENKATESAN
6. 11-15-910 High Resolution FTM –Amichai and Carlos (to be presented by Alecs)
7. 11-15-1073: Additional Located related clarifications to 4.2 Draft – Carlos (to be presented by Naveen KAKANI)
   1. **Location CIDs** - **Review Doc**: 11-15/1162r0 Ganesh VENKATESAN
      1. CID 5177, 6049, 6419 (MAC)
         1. Review Comments
         2. Review changes proposed
         3. Insertions should be noted for editors clearly.
         4. Burt Period should be just before the word Fields.
         5. Any interims edits should not be left (Change from choice to selection looked like a delete, but it was a track change from an interim version left over.
         6. Discussion on the size of FTM Synchronization Information – ‘0 or 7’ vs ‘Variable’
            1. Question on if this needs to be an element or a field.
            2. Need to know if it is element for extendibility
         7. Note the ‘may’ should be a ‘might’, page 4 last line.
         8. Proposed Resolution for 5177, 6049 and 6419: Revised; incorporate the changes in 11-15/1162r1 (<https://mentor.ieee.org/802.11/dcn/15/11-15-1162-01-000m-tsf-synchronization-information-for-synchronizing-ista-and-rsta.doc>). The changes are in response to the proposed changes.
         9. No Objection – Mark Ready for Motion
   2. **Review Doc: 11-15/1072r1** Naveen KAKANI
      1. CID 5860 (MAC)
         1. Review comment
         2. Review proposed changes in the document
         3. Proposed Resolution: Revised; incorporate the text changes in 11-15/1072r1 only 2 instances needed to be changed and modifies Subelement ID 6 in table 8-148.
         4. No Objection – Mark Ready for Motion
   3. **Review Doc**: **11-15/1163r0** Ganesh VENKATESAN
      1. No CID related to this submission
      2. Submission Abstract:

This submission addresses the following:

1. Provide a means for an ISTA to indicate in IFTMR that it has no preference for when the first Burst Instance starts.
2. Replaced references to FTM Trigger frame with equivalent description of a FTM Request frame.
   * 1. Review the proposed changes
     2. Initial Fine Timing Measurement frame is the first frame to establish the exchange.
        1. Partial TSF Timer No Preferences is reserved in the initial frame, but used afterward.
     3. Parenthetical statements need “i.e.,” on the end of page 3.
     4. Discussion the parenthetical statements value and meaning.
        1. Concern on the addition of the ‘i.e.’, makes it harder to understand.
        2. Removing the parenthetical was agreed to be better.
     5. Discussion on if there were any other “FTM Trigger frame” that need to be removed.
     6. The editor instructions were clarified to indicate more changes were being made other
     7. ACTION ITEM #4 : Dorothy – to make a motion to incorporate the changes for 11-15/1163r1.
     8. No Objection to preparing a motion for later in week.
   1. **Review Doc: 11-15/0910r2** Eitan, ALECSANDER
      1. Submission Abstract:

Current FTM defines resolution of 100 ps for the time-stamps, which is insufficient for many use-cases. This contribution changes the FTM specifications to 1 ps resolution to address this issue.

It uses REVmc Draft 4.1 as baseline.

* + 1. No related CID
    2. Review the proposed Changes.
    3. ACTION ITEM #5: Dorothy – Prepare a motion to incorporate document 11-15/0910r2 into the draft.
    4. No objection to include in a motion.
  1. **Review doc: 11-15/1073r1** Naveen KAKAMI
     1. Review document
     2. Note header and footer need to be corrected.
     3. Neighbour Report changes were described.
     4. Editorial questions found in D4.0 were addressed in the changes being proposed after the addition of “element” was added to “Neighbour Report Element” in several locations.
     5. Discussion on the change to equation variable *TFTM\_1* inclusion and definition.
     6. A comment will most likely be made to clarify the definition in the next ballot.
     7. ACTION ITEM #6: Dorothy – Prepare a motion to incorporate document 11-15/1073r2 into the draft.
  2. Check on Other **Location topics**:
     1. A document for “RM Capability + Neighbor Report + FTM – Ganesh VENKATESAN” has not been posted, but will be posted and discussed on a teleconference.
  3. **Motion 153**: *Editorial Comments*

Approve the comment resolutions in the

“Editorials” , “Editorials - ready for motion”, “Editorials - speculatively edited - updated resolution”, and “Editorials – style” tabs in

<https://mentor.ieee.org/802.11/dcn/15/11-17-0532-16-000m-revmc-sponsor-ballot-comments.xls> and incorporate the indicated text changes into the TGmc draft.

* + 1. Moved: Adrian STEPHENS 2nd: Jon ROSDAHL
    2. Discussion – no discussion
    3. Results: 12-0-0 **MOTION PASSES**
  1. **Review updated Agenda** document that will be posted R5:
     1. Review motions for tomorrow – see 11-15/980r5
  2. **Review doc:11-15/1010r10** Adrian STEPHENS
     1. Continue where we left off
     2. CID 6068 (MAC)
        1. Review comment
        2. There was a conversation on if the Null Terminated String notation was needed.
        3. Straw Poll:
           1. Single Case vs Convention
           2. Results: 0 single vs 6 for Convention
           3. Proposed Resolution: Revised. At 561.01 insert a new para: “ASCII strings are not null terminated”. Remove the 5 instances of “This string is not null terminated” in Clause 8.
        4. No Objection – Mark Ready for Motion
     3. CID 6647 (MAC)
        1. Review comment
        2. Proposed resolution: Revised; At cited location delete “8 and”.
        3. No Objection – Mark Ready for Motion
     4. CID 5054 (MAC)
        1. Review Comment
        2. Discussion on the change does not affect the table with the ‘Capabilities’ field.
        3. Proposed Resolution: Revised. Globally change “the Capabilities field” to “the Extended Capabilities field”.

At 826.56, 827.01, 827.02 (2x), 827.07 change “Capabilities” to “Extended Capabilities”

* + - 1. No Objection – Mark Ready for Motion
    1. CID 6493 (MAC)
       1. Review comment
       2. Mark Submission is required – Assign to Mark Rison
    2. CID 6476 (MAC)
       1. Review comment
       2. Review of the cases cited
       3. Discussion on the value of reducing the logic
       4. Straw Poll:
          1. Accept vs reject the CID
          2. Results: Accept – 5 Reject - 2
       5. Proposed Resolution: Accept
       6. After the Straw poll proceed – Mark Ready for Motion
  1. Recess at 3:30pm the attendance at the midpoint was 15

1. **Minutes for 802.11 TGmc** REvmc BRC for Wednesday 16 Sept 2015 PM2 –
   1. **Called to order** by Dorothy STANLEY (HP/Aruba) 4:00pm
   2. Noted that the **Patent Policy** is still in place and a request for any IPR not subject to an LOA was made, and no items were identified.
   3. **Review Agenda** for the slot – 11-15/980r5

* 11-15-0516 Graham Smith CCA 11b
* Comment resolution – CIDs 5960 Matt Fischer
* 11-15-1022, 1023, 1024, 1025 Matt Fischer
* 11-15-0654 Matt Fischer
* Additional CIDs – 11-15/1010r10 – Adrian STEPHENS
  + 1. No objection to agenda, but as Adrian is here and Graham and Matthew were not, start with Adrian.
  1. **Review Doc: 11-15/1010r10** Adrian STEPHENS
     1. CID 6402 (MAC)
        1. Review comment
        2. Proposed Resolution: REVISED (MAC: 2015-09-16 09:06:25Z): Add a row for bit 59 at the cited location and mark it ‘Reserved’.
        3. No Objection – Mark Ready for Motion
     2. CID 6061 (MAC)
        1. Review comment
        2. Proposed Resolution: Revised. At cited location change "The TDLS Wider Bandwidth subfield indicates … base channel." to "The TDLS Wider Bandwidth subfield indicates whether the STA supports a wider bandwidth than the BSS bandwidth for a TDLS direct link with a primary channel equal to the primary or only channel of the base channel. The field is set to 1 to indicate that the STA supports a wider bandwidth and to 0 to indicate that the STA does not support a wider bandwidth."
        3. No Objection – Mark Ready for Motion
     3. CID 5961 (MAC)
        1. Review comment
        2. Assign to Matthew FISCHER – mark needs submission
     4. CID 5965 (MAC)
        1. Assign to Menzo WENTINK – submission required.
     5. CID 6470 (MAC)
        1. Review comment
        2. Assign to Mark RISON – mark needs submission
     6. CID 6436 (MAC)
        1. Review comment
        2. Proposed Resolution: Accept
        3. No Objection – Mark Ready for Motion
     7. Next one would be CID 5860 stop here for now.
  2. **Review doc: 11-15/654r13** Matthew FISCHER
     1. CID 5960 – NSS Support partitioning
        1. Last time this submission was presented was r8
        2. Review document history since r8.
        3. Review new changes since r8.
        4. Addition of ¾ mode was the major addition to address the objections from July’s presentation as well as many editorial issues were corrected.
        5. Question on C3 MIB detail – two variables added, what is the difference?
           1. Naming of the variables should be adjusted.
           2. Need to correct the Editor instructions for adding the MIB variables.
           3. Change the name to dot11VHTExtendedNSSBWSignaling.
        6. Delete “note 2” on page 15 in the first table…refers to “half” and there is no “half”.
        7. A review of the MIB Variable names was done to ensure the proper one was used in each location.
        8. R14 was created and uploaded to Mentor
  3. **Motion 154**: CID 5960

Resolve CID 5960 as “Revised” with a resolution of Incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-0654-14-000m-lb1000-cid5960-nss-support-partitioning.docx> into the TGmc Draft.

* + 1. Moved: Matthew Fischer 2nd Menzo Wentink
    2. Discussion: None
    3. Results: 16-0-7 **MOTION PASSES**
  1. **Review Doc: 11-15/1022r1** Matthew FISCHER
     1. Submission Abstract: This document proposes an update to the resolution of LB1000 (first sponsor ballot) CID 5959 document 11-15-0653r2 which provided modifications to the ESTTHROUGHPUT SAPs introduced by the resolution of CID 3309 of LB202 (i.e. the 11-15-0653r2 resolution of CID 5959 added uplink throughput estimate and added an example algorithm for determining the estimated throughput values). Following the adoption of 11-15-0653r2 as the resolution for CID5959, editorial review suggested that some refinement to the updated draft was needed. This document provides those refinements.
     2. Review issues identified.
     3. Review Proposed Changes.
     4. From the submission: A summary of the modifications follows:

1. 653r2 included an inadvertent modification of a MIB variable reference within management frame body contents listings - dot11RadioMeasurementActivated was changed to dot11MultiDomainCapabilityActivated
2. 653r2 proposed that the ESP IE be formatted in the traditional IE manner, this document changes the format to use the new Element ID Extension field
3. 653r2 added a MIB variable but did not include a group to which it should be assigned – this document assigns the MIB variable to dot11StationConfigTable and to dot11SMTbase13
4. 653r2 included an annex subclause containing a set of equations for calculating an estimated throughput value – this document proposes various improvements to the formatting of those equations
   * 1. Discussion on the modification to table 8-33 – determine to make one sentence.
     2. Creating Request Element Extension request will need an ANA number from either the precious bits or we need to create a means to use the extended bits.
     3. Need to find out if this needs to be in the beacon frame and if is optional then maybe the extended ID would be ok, but if it has to be in every beacon then we would want to use the old method with the shorter ID.
     4. Editor suggests that if this goes into the Beacon, then we can use the old method, and we can delay having to document how to do the extension.
     5. Review errors in calculations where the variable names were mangled.
     6. Question on “min(x,y) – the minimum of x and y” and “max(x,y) = the maximum of x and y”.
        1. Determined to just remove the definition as they are not needed.
     7. Question on instructions o add the MIB variable to the groups.
     8. Changes will need to be changed and an R2 will be posted to mentor.
     9. Question on why “Request” has a dependency on a MIB variable. Take offline to research.
   1. **Review doc: 11-15/1023r0** Matthew FISCHER
      1. Submission Abstract:

This document proposes a resolution for CID 5963 of LB1000 (the first sponsor ballot of the TGmc draft), a comment on TGm Draft 4.0 suggesting the addition of a bit in the BA Control field to indicate a RX Buffer overlow condition has occurred at the Block Ack recipient (not the recipient of the BlockAck frame, but the recipient in a Block Ack session).

* + 1. CID 5963
       1. Review Comment
       2. Review discussion
       3. Discussion on the use of the proposed bit.
       4. Discussion on the BlockAck use with the new bits.
       5. Concerns expressed on the implications of the proposal.
          1. Discussion on the BlockAck having a bufferable capability.
       6. Out of Time –need to research more and bring back later.
  1. **Recessed 5:35pm** Attendance at one hour mark = 30

1. **Minutes for 802.11 TGmc** REVmc BRC for Thursday 16 Sept 2015 PM1 –
   1. **Called to order** by Dorothy STANLEY (HP/Aruba) 1:30pm
   2. Noted that the **Patent Policy** is still in place and a request for any IPR not subject to an LOA was made, and no items were identified.
   3. **Review Agenda** for the slot – 11-15/980r7
   4. Review Draft CID assignment slide 19 – 11-15/980r7
      1. Move 11-15/1023,1024,1025 Matthew Fischer to November Meeting (7 slots available)
      2. Add– 11-15/1180 Emily QI 1 hour
      3. Add 11-15-1183 – Ganesh VENKATESAN 15 minutes
      4. Change times on Sept 25th to 25/25/45 minutes
   5. **Unassigned CID Assignment Requests**:
      1. Currently most of the GEN are assigned
      2. Assign the PHY (all flavours) to Vinko (74+ comments)
      3. Assign GEN Discuss/review to Jon ROSDAHL
      4. MAC has similar situation in that not all worked on CIDs need to be assigned to Mark HAMILTON
      5. Discussion on how to work on how to present the data to find CIDs
      6. No Change in the way we have been doing the files, but count on Adrian’s main comment file to track all comments in one tab.
      7. Discussion on assigning MAC comments
      8. List will be sent to MAC
   6. **GEN CIDS**
      1. CID 5237 (GEN)
         1. Review comment
         2. Add a reference is fine, but need reference in the cited location.
         3. Need to prepare a resolution.
      2. CID 6595 (GEN)
         1. Review comment
         2. Proposed resolution: REJECTED (GEN: 2015-09-17 07:05:06Z) 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. CID 6400 (GEN)
         1. Review comment
         2. 75 instances of “Element Field”
         3. Proposed Resolution:
         4. Assign to Mark Rison – need submission on list of locations.
      4. CID 6050 (GEN)
         1. Review comment
            1. Proposed Resolution: ACCEPTED (GEN: 2015-09-17 07:16:20Z)
            2. Mark ready for motion
      5. CID 6286 (GEN)
         1. Review Comment
         2. Proposed Resolution: ACCEPTED (GEN: 2015-09-17 07:18:23Z)
         3. No objection – Mark ready for motion
      6. CID 5941 (GEN)
         1. Review comment
         2. Proposed Resolution: ACCEPTED (GEN: 2015-09-17 07:20:18Z)
         3. No objection – Mark ready for motion
      7. CID 5948 (GEN)
         1. Review Comment
         2. Proposed Resolution: REVISED (GEN: 2015-09-17 07:24:44Z) - at the cited location; change "twice; then BCC is encoded," to "twice, then BCC encoded,"
         3. No objection – Mark ready for motion
   7. **Review doc:11-15/1147r1** Menzo Wentink
      1. As we make changes will become r2
      2. CID 6199 (MAC)
         1. Review comment
         2. Proposed resolution: Revised. On page 1711.6 change "A VHT STA with a TDLS link that is not an off-channel direct link shall use as its primary channel the channel indicated by the Primary Channel field in the HT Operation element." to "A VHT STA with a TDLS link that is not an off-channel direct link shall use the primary channel of the BSS."
         3. Similar issue with CID 6525 (GEN), (11-15/1010r10)
            1. Proposed resolution CID 6525 (GEN) : REVISED (GEN: 2015-09-17 07:36:31Z) Replace cited definition with:

off-channel: A channel used by a tunnelled direct link setup (TDLS) station (STA) that does not overlap the channel(s) used by the access point (AP) with which the TDLS STA is associated.

* + - * 1. Discussion of the difference of off-channel and base channel and tunnel
        2. Mark 6525 as Mark Ready for Motion
      1. Review the proposed resolution in light of the now accepted resolution.
      2. Discuss the need to indicate what the “primary channel” , and what channels are allowed to be used as primary
      3. Updated Proposed Resolution CID 6199 : Revised. On page 1711.6 change "A VHT STA with a TDLS link that is not an off-channel direct link shall use as its primary channel the channel indicated by the Primary Channel field in the HT Operation element." to "A VHT STA with a TDLS link that is not an off-channel direct link shall use as its primary channel the primary channel or the only channel of its BSS."
      4. No Objection – Mark Ready for Motion
    1. CID 6186 (MAC)
       1. Review Comment
       2. Proposed Resolution: Revised. At 1710.64, change
       3. "The channel width of a TDLS direct link with a primary channel equal to the base channel shall not exceed the channel width of the BSS to which the TDLS peer STAs are associated, except when the TDLS Wider Bandwidth subfield"

to

"The channel width of a TDLS direct link on the base channel shall not exceed the channel width of the BSS to which the TDLS peer STAs are associated, except when the TDLS Wider Bandwidth subfield".

* + 1. CID 5966 (MAC)
       1. Review comment
       2. Proposed change: In 9.22.2.8 (TXOP limits) at P1331 L51 add a new item as follows: "− Transmission of an ACK frame at the lowest basic rate or MCS."
       3. Needs more work, but looking for guidance from the BRC.
       4. Discussion on direction – the proposed change does not achieve desired results.
       5. Discussion on Block Ack rules.
       6. This change may have a large impact, so we need to have some simulation work to ensure that the change is warranted.
       7. More research and return later
    2. CID 5967 (MAC)
       1. Review Comment
       2. Proposed Resolution: REVISED (MAC: 2015-09-17 08:02:40Z); Incorporate the text changes in 11-15/654r14 (https://mentor.ieee.org/802.11/dcn/15/11-15-0654-14-000m-lb1000-cid5960-nss-support-partitioning.docx). Note to editor, same as resolution to CID 5960.
       3. No Objection – Mark Ready for Motion
    3. CID 6181 (MAC)
       1. Review Comment
       2. The cited location is in HT and the comment change suggested a different location, the proposed change reversed the locations.
       3. Discussion on logic of the cited locations. HT operation is different from VHT operation. If the STA supports HT vs VHT and the changes needed.
       4. Discussion in submission was removed and rewritten.
       5. More work to be done
    4. CID 5965 (MAC)
       1. Review comment
       2. Discussion has backward logic error
       3. Success rate = non-colliding channel access
          1. Probability of success
       4. Discussion on if the metric is valid or helpful.
          1. The combination of probability of success and the rate of success for a node in the set seems to have confused at least some.
          2. Aggregate throughput is mixed in as well.
          3. The reason for the charts in was to show the change did not cause harm.
       5. The change should help everyone in the system win with less collision.
       6. Question on what happened to the average latency.
       7. Ran out of time
  1. Recess at 3:30pm attendance at the half way mark was 17

1. **Minutes for 802.11 TGmc** REVmc BRC for Thursday 16 Sept 2015 PM2 –
   1. **Called to order** by Dorothy STANLEY (HP/Aruba) 4:00pm
   2. Noted that the **Patent Policy** is still in place and a request for any IPR not subject to an LOA was made, and no items were identified.
   3. **Review Agenda** for this final slot – 11-15/980r9
2. Motions
3. Comment resolution –
   1. 11-15-1132 – Jouni MALENI
   2. 11-15-1090 – Sigurd SCHELSTRAETE,
   3. 11-15-1174, 1175 – Youhan KIM
4. Plans for November, Schedule
5. AOB, Adjourn
   1. **Motions**:
   2. **Motion 155**: MAC and GEN Comments

Approve the comment resolutions in the

“Motion MAC-AW” tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0565-17-000m-revmc-sb-mac-comments.xls>

“Gen-Bangkok-A” tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0665-10-000m-revmc-sb-gen-adhoc-comments.xlsx>

and incorporate the indicated text changes into the TGmc draft.

* + 1. Moved: Jon ROSDAHL 2nd: Stephen MCCAAN
    2. Discussion – none
    3. Results: 15-0-1 MOTION PASSES
  1. **Motion 156:** CID 3245 and Caption

Incorporate the text changes under “CID3245 and figure 9-78 caption change” in <https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx> into the TGmc draft.

* + 1. Move: Ganesh Venkatesan 2nd Adrian Stephens
    2. No Discussion
    3. Results: Approved by Unanimous Consent - **MOTION PASSES**
  1. **Motion 157:** Partial TSF No Preference

Incorporate the text changes in https://mentor.ieee.org/802.11/dcn/15/11-15-1163-05-000m-signalling-partial-tsf-timer-no-preference.doc into the TGmc draft.

* + 1. Discussion last minute changes displayed
    2. Discussion on why “and its retransmissions” is included – to keep the two clauses in sync to keep explicitly the same.
    3. Changes between R4 and R5 were described.
    4. Move: Ganesh VENKATESAN 2nd: Edward AU
    5. Results: 13-0-3 **MOTION PASSES**
  1. **Motion 158**: TSF Synchronization

Resolve: CIDs 5177, 6049, 6419 as “revised” ; Incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-1162-01-000m-tsf-synchronization-information-for-synchronizing-ista-and-rsta.doc> into the TGmc draft.

* + 1. Move: Ganesh Venkatesan 2nd: Emily QI
    2. Results: 13-0-2 **MOTION PASSES**
  1. **Motion 159:** High Resolution FTM

Incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-0910-02-000m-high-resolution-ftm.docx> into the TGmc draft.

* + 1. Moved: Brian Hart 2nd : Ganesh VENKATESAN
    2. Discussion: none
    3. Results: 15-0-2 **MOTION PASSES**
  1. **Motion 160:** Misc. Location

Incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-1073-02-000m-location-related-clarifications-to-draft-4-2.docx> into the TGmc draft.

* + 1. Moved: Jon Rosdahl 2nd Stephen McCann
    2. Discussion: None
    3. Results: 15-0-2 **MOTION PASSES**
  1. **Review Doc: 11-15/516r7** Graham SMITH
     1. Review the document
     2. This has been reviewed before; final changes should be agreeable – long list of authors now on the submission.
     3. Explain each of the changes included in this revision.
  2. **Motion 161:** CIDS 5011, 5012, 5013
     1. Resolve CIDs 5011, 5012, 5013 as Revised, with a resolution of “incorporate the text changes in <https://mentor.ieee.org/802.11/dcn/15/11-15-0516-07-000m-cca-for-clauses-16-17-and-19.docx> .
     2. **Moved: Graham SMITH 2nd: Guido HIERTZ**
     3. Discussion: None
     4. Results: 16-0-0 **MOTION PASSES**
  3. **Review doc:** **11-15/1132r2** Jouni MALINEN
     1. Submission Abstract: Number of comments in REVmc/D4.0 SB comments pointed out differences between the descriptions of CCMP and GCMP decapsulation description. While some differences may be appropriate, most of these are neither necessary nor desired. This contribution proposes changes to align description of CCMP and GCMP decapsulation steps and address the identified issues in the SB comments CIDs 6024, 6239, 6240, 6393, 6564. In addition to the issues identified in those comments, the proposed cleanup moves transmitter requirements into the appropriate subclauses and requirements related to BIP into the BIP subclauses.

r1: Comments from Mark Rison: additional clean-up to CCMP, BIP, GCMP

r2: Fix ambiguous BIP-CMAC-256 MIC length description and further clean-up based on comments from Mark Rison

* + 1. Review the document and the proposed changes.
    2. Critical Changes are noted for CID 6024 changes – fragmented frame has to verify that there is a a MPDU PN Values are incrementing by one and the second one is the BIP-CMAC-256 is 128.
    3. The rest of the changes are just clean-up to make all sides TX/RX match
    4. Security implementation would not notice the changes as they would have to do things as noted to work anyway.
    5. Incrementing by 1 vs increasing monotonically was dealt with by the former. Another way to say strictly increasing integer, but this should be changed to match the discussion from earlier this week.
    6. **Motion 162:** *GCMP Decapsulation*

Resolve CID 6024 (MAC) 6239 (MAC) 6240 (MAC) 6393 (MAC) 6564 (MAC)

As Revised. With the resolution of “Incorporate the changes proposed in 11-15/1132r2 <<https://mentor.ieee.org/802.11/dcn/15/11-15-1132-02-000m-gcmp-decapsulation.docx>>

(Proposed Changed to REVmc/D4.0 section). This aligns the description of GCMP decapsulation with CCMP decapsulation and by doing so, adds the previously missing rules for fragmented frames. In addition, the rules related to transmitter rules are moved to the originator subclauses and the rules related to group-addressed MMPDUs to the BIP subclauses.”

* + - 1. Moved: Jouni MALENI 2nd Stephen McCann
      2. Results: 12-0-2 **MOTION PASSES**
  1. Review doc: 11-15/1090r1 Sigurd SCHELSTRAETE
     1. CID 5892
        1. Review comment
        2. Discussion on the LDPC vs VHT LDPC implementation and signalling
        3. Another CID was similar 6242 has similar comment. Make same resolution.
        4. Proposed resolution for 5892 (MAC) and 6242 (MAC): Incorporate the text changes proposed in 11-15/1090r1 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1090-01-000m-miscellaneous-11mc-comment-resolutions.docx> > for CID 5892 – adds new paragraph.
        5. ACTION ITEM #7: – Adrian to send out update on new assignments in general and an email to Matthew FISCHER to notify both CIDs are no longer assigned to him.
        6. No Objection – Mark Ready for Motion
     2. CID 5900 (MAC)
        1. Review Comment
        2. Proposed Resolution: Revised. Remove the lines 63-64 on Page 1424:

“ ”

* + - 1. Need to wait on this one as there was some concern that the discussion text was not accurate in stating that this sentence was not needed. Will check to verify that Nr limits are made in the HT case, it is there in the VHT case.
    1. CID 5913 (GEN)
       1. Review Comment
       2. Proposed Resolution: Proposed resolution for 5892 (MAC) and 6242 (MAC): Incorporate the text changes proposed in 11-15/1090r1 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1090-01-000m-miscellaneous-11mc-comment-resolutions.docx> > for CID 5913 changes are nearly the same, but adds “one of” to the resolution.
       3. No Objection – Mark Ready for Motion
    2. CID 5914 (GEN)
       1. Review Comment
       2. Discuss the proposed change, but no resolution prepared.
       3. A resolution to remove the duplication will be prepared.
    3. CID 5915 (GEN)
       1. Review Comment
       2. Discussion the possible options for the changes
       3. Use of a variable name as opposed to the “magic number”
       4. Proposed Resolution: REVISED (GEN: 2015-09-17 10:28:42Z): at cited location change “0 to 1 048 575 octets” to “0 to aPSDUMaxLength octets (see table 22-29)”
       5. No Objection – Mark Ready for Motion
    4. CID 5916 (GEN)
       1. Review Comment
       2. Originally this was going to be withdrawn, but need to make a change of the location of the note, so a resolution will be prepared and brought back.
    5. CID 5919 (GEN)
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (GEN: 2015-09-17 10:32:38Z)
       3. No Objection – Mark Ready for Motion
    6. CID 5922 (GEN)
       1. Review Comment
       2. Proposed Resolution: REVISED (GEN: 2015-09-17 10:34:58Z) Incorporate the text changes proposed in 11-15/1090r1 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1090-01-000m-miscellaneous-11mc-comment-resolutions.docx> > for CID 5922 – a reference note was added.
       3. Discussion on an additional location that is needed, and so more discussion will be needed.
       4. **CIDs 5920, 5923, 5926, 5927, 5929, 5931 and 5937 (GEN)**
       5. Review Comments
       6. Submission Discussion: In several places in the standard dealing with 80+80 MHz transmissions, reference is made to “the signal on frequency segment i\_Seg of transmit chain i\_TX”. There was a prior comment (CID 3178) that this characterizes the 80+80 as sending the full analog signal on a single antenna, whereas an implementation may just as well send separate segments on separate antennas. In that case, the wording “transmit chain i\_TX of frequency segment i\_Seg” may be more appropriate.

In resolution of this comment, it was decided to use the more neutral wording “frequency segment i\_Seg and transmit chain i\_TX” (see 11-15/26r1), which covers both possibilities. It appears that this resolution was not consistently applied throughout the document. In other places, the mention of “segment” is omitted.

* + - 1. Proposed Resolution: REVISED (GEN: 2015-09-17 10:47:23Z) Incorporate the text changes proposed in 11-15/1090r1 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1090-01-000m-miscellaneous-11mc-comment-resolutions.docx> > for CID **5920, 5923, 5926, 5927, 5929, 5931 and 5937**– a corrections as noted were made.
      2. No Objection – Mark Ready for Motion
  1. Review doc 11-15/1174r0 Youhan Kim
     1. CID 5022 and 6208 (GEN)
        1. Review Comment
        2. Review document
        3. Discussion on the object group that was missing for the MIB
        4. Add “Note to editor: Add dott11Beacon RSSI Table to dot11SMTbase13.
        5. Proposed resolution for CID 5022 and 6208: REVISED (GEN: 2015-09-17 10:54:55Z)incorporate the text changes in 11-15/1174r1 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1174-01-000m-revmc-sb0-cids-5022-and-6208.doc>> . These changes address the MIB style issues identified by the comment.
  2. Review doc: 11-15/1175r0 Youhan KIM
     1. CID 5023 (GEN)
        1. Review comment
        2. Review changes
        3. Proposed resolution: REVISED (GEN: 2015-09-17 10:58:30Z) Incorporate the text changes in 11-15/1175r0 < <https://mentor.ieee.org/802.11/dcn/15/11-15-1175-00-000m-revmc-sb0-cid-5023.doc>>, these changes add PICS entries for Beacon RSSI and Estimated Throughput.
        4. No Objection – Mark Ready for Motion
  3. Future plans
     1. BRC F2F Oct 14-15-16 – Cambridge –
        1. Sponsored by Samsung –Contact: Mark Rison
        2. RSVP to Mark Rison
     2. BRC F2F Dec 7-10 in Piscataway
        1. The rooms confirmed are only 7-9.
        2. Request to include Dec 10 as well.
        3. Stretch goal is to go out for Recirc before end of year.
        4. IEEE-SA will sponsor the meeting at the IEEE Headquarters
           1. Contact is Kathryn Bennett – during that week will be Soo Kim.
           2. Note that the IEEE-SA Awards Dinner will be the Sunday before, and would encourage all to come in early to attend the dinner.
           3. ACTION ITEM #8: Jon to see if we can add the 4th day.
     3. Adjourn at 6:01pm Attendance at the half way mark was 17 (electronic 17)

**References:**

1. Monday PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-01-000m-tgmc-agenda-september-2015.pptx>

https://mentor.ieee.org/802.11/dcn/13/11-13-0095-24-000m-editor-reports.pptx

<https://mentor.ieee.org/802.11/dcn/15/11-15-1142-00-000m-cid-6405.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0828-01-000m-sb0-ecclesine-resolutions.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1017-00-000m-proposed-resolution-to-cid-5072.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1017-01-000m-proposed-resolution-to-cid-5072.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1018-00-000m-some-gen-comment-resolutions.doc>

2. Monday PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-02-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1037-02-000m-resolutions-for-more-assigned-comments-gs.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1037-01-000m-resolutions-for-more-assigned-comments-gs.docx>

3. Tues PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-03-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1010-09-000m-revmc-sb0-stephens-resolutions-part-2.doc>

4. Tues: PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-04-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1124-00-000m-resolution-to-11ad-related-cids.docx>

https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx

<https://mentor.ieee.org/802.11/dcn/15/11-15-1037-01-000m-resolutions-for-more-assigned-comments-gs.docx>

5. Wed PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-05-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1162-00-000m-tsf-synchronization-information-for-synchronizing-ista-and-rsta.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1162-01-000m-tsf-synchronization-information-for-synchronizing-ista-and-rsta.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1072-01-000m-cid-5860-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1163-01-000m-signalling-partial-tsf-timer-no-preference.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0910-02-000m-high-resolution-ftm.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1073-01-000m-location-related-clarifications-to-draft-4-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1073-02-000m-location-related-clarifications-to-draft-4-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-17-0532-16-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1010-10-000m-revmc-sb0-stephens-resolutions-part-2.doc>

6. Wed: PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-05-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1010-10-000m-revmc-sb0-stephens-resolutions-part-2.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0654-13-000m-lb1000-cid5960-nss-support-partitioning.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0654-14-000m-lb1000-cid5960-nss-support-partitioning.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1023-00-000m-lb1000-cid5963-ba-oflo.docx>

7. Thurs: PM1:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-07-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1147-01-000m-assorted-cids.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1147-02-000m-assorted-cids.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1174-00-000m-revmc-sb0-cids-5022-and-6208.doc>

8. Thurs: PM2:

<https://mentor.ieee.org/802.11/dcn/15/11-15-0980-09-000m-tgmc-agenda-september-2015.pptx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0565-17-000m-revmc-sb-mac-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0665-10-000m-revmc-sb-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1124-01-000m-resolution-to-11ad-related-cids.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1162-01-000m-tsf-synchronization-information-for-synchronizing-ista-and-rsta.doc>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0910-02-000m-high-resolution-ftm.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1073-02-000m-location-related-clarifications-to-draft-4-2.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0516-07-000m-cca-for-clauses-16-17-and-19.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1132-02-000m-gcmp-decapsulation.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-1090-01-000m-miscellaneous-11mc-comment-resolutions.docx>

https://mentor.ieee.org/802.11/dcn/15/11-15-1174-00-000m-revmc-sb0-cids-5022-and-6208.doc

<https://mentor.ieee.org/802.11/dcn/15/11-15-1174-01-000m-revmc-sb0-cids-5022-and-6208.doc>

https://mentor.ieee.org/802.11/dcn/15/11-15-1175-00-000m-revmc-sb0-cid-5023.doc