IEEE P802.11  
Wireless LANs

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| REVmc Minutes for November - San Antonio | | | | |
| Date: 2014-12-26 | | | | |
| 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 802.11m REVmc Task Group during the IEEE 802 Plenary 2014 November 3-6 in San Antonio, Texas.

R1: Corrected Gabor’s Last name. – other minor editorial corrections.

1. **Minutes for 802.11 TG REVmc on Monday November 3, 2014 – PM1 13:30-15:30**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 1:30pm
   2. **Officer introductions and A**ffiliation
   3. Dorothy STANLEY (Aruba), Chair; Mark HAMILTON (Spectralink), Vice Chair; Jon ROSDAHL (CSR) Vice-Chair/Secretary;
   4. **Review Patent Policy** – No issues noted
   5. **Review Agenda** 11-14/1321r1

Monday PM1

1. Chair’s Welcome, Status, Review of Objectives, Approve agenda, minutes
2. Editor’s Report
3. Comment resolution – 11-14/1358 Mark HAMILTON
4. Editor Comments – (about 50 CIDs)

Tuesday PM1

1. 11-14-1352 – Lisa WARD (5 minutes)
2. 11-14/1052 PHY comments – Edward AU, Mingguan XU
3. Editor Comments

Tuesday PM2

1. 11ad Comment resolution:   
   Carlos CORDEIRO: 11-14/1274, 11-14/1275, 11-14/1413
2. ISO comments 11-13-0123
3. CIDs 3426, 3247, 3429 – 11-14/1357r1, 11-14/1104

Wednesday PM1

1. 11-14/1375 – Guido HIERTZ
2. Telecon motions
3. Location & more CIDs: 11-14/1014, 11-14/1015, 11-14/1276 – Ganesh VENKATESAN

Wednesday PM2

1. 3GPP reference changes – 11-14/1421
2. extend element ID space - 11-14/1353 – Adrian STEPHENS

Thursday PM1

1. CID 3396 – Wookbong LEE
2. Comment resolution, ANQP additions

Thursday PM2

1. Comment resolution
2. Motions
3. Plans for January, Schedule
4. AOB, Adjourn
   * 1. Draft agenda was shown in 11-14/1321r1
     2. Agenda as amended was approved by unanimous consent post to 11-14/1321r2
   1. **Motion to approve Telecon Minutes**
      1. **Motion to Approve prior meeting minutes:**

Athens minutes: <https://mentor.ieee.org/802.11/dcn/14/11-14-1008-00-000m-revmc-minutes-for-sept-2014-athens.docx>

Teleconference minutes: <https://mentor.ieee.org/802.11/dcn/14/11-14-1336-03-000m-tgmc-telecon-minutes-oct-2014.docx>

* + 1. Move Jon ROSDAHL – 2nd Mark HAMILTON –
    2. Approved by Unanimous Consent
  1. **Editor Report**:11-13/95r14
     1. Thanks to those assisting
     2. Editor Training for new sub-editors complete
     3. Most of the editing in 3.3 was done by them.
     4. D3.3. is on the server, and is being reviewed – authors are asked to review that comment was resolved correctly.,
     5. Editors and 3 volunteers making sure all resolutions were properly applied.
     6. Review of Comment status
        1. Assigned Editorials needing a submission – 10
        2. Editorial needing discuss – 1
        3. ANA Editorial – 1
        4. Resolution Drafted- yet to be reviewed – 12
        5. Resolution Drafted – objected editorials – 40
        6. Review needing TGmc input – 3590
        7. Submission required – editorials – 1 (CID 3508)
        8. 3 CIDS that are yet to be completed in editorial processing (3635,3215,3691)
     7. Not edited yet CIDs are 17 – speculative edits have been done on the objected CIDs already.
     8. Review Assignees for CIDs
  2. **Comment Resolution**:
  3. Review Doc 11-14/1358r0 Mark HAMILTON
     1. CID 3150 MAC
        1. Review Comment
        2. Review proposed diagram
        3. The diagram has a slight change from what is in the 802 Overview and Architecture version (small dashed box within the portal) the proposed diagram is an extra diagram being added and was prepared by
        4. Proposed Resolution: **Revised** Insert the figure shown in 11-14/1358r0 in the Proposed Resolution to CID 3150, as new Figure 4-14a, near the second paragraph of 4.6.2.1. Change the first sentence of 4.6.2.1 second paragraph to start, “Refer to the ESS network in Figure 4-14a (IEEE 802.11 Infrastructure model) …”
        5. No objection – Mark Ready for motion
     2. CID 3507 and 3506 MAC
        1. Review comments
        2. Review proposed changes
        3. Polish the proposal to eliminate some extra “ands”, answer question on MSDU vs MAC service Tuples and the definition differences.
        4. Added a “shall be maintained” to the clause 5 and 10 and removed the “To operate properly”.
        5. Proposed Resolution: Revised Make changes as shown in 11-14/1358r1 for CID 3507/3506.
        6. No objection - mark ready for motion
     3. CID 3502 MAC
        1. Review comment
        2. Review each of the 12 cases
        3. Discussion on the value of testing for parameters that should never be incorrect.
        4. None of the cases were objected to having the proposed change applied.
        5. Proposed Resolution: **Revised** -- *In 6.3.9.2.2, delete both the ResultCode and VendorSpecificInfo parameters and delete the parameter table.*

*Delete* INVALID\_PARAMETERS *from the ResultCode list in 6.3.4.3.2, 6.3.26.3.2, 6.3.26.5.2, 6.3.29.3.2, 6.3.29.5.2, 6.3.39.3.2, 6.3.39.5.2.*

*Delete “*when that MLME-ADDTS.request primitive is found to contain invalid parameters or*” from 6.3.26.3.3.*

*Replace the text of 6.3.64.5.3 with, “*This primitive is generated by the MLME when the STA receives a Sleep Mode Response frame from the AP.”

*Replace the text of 6.3.65.3.3 with, “*This primitive is generated by the MLME when the STA receives a TIM Broadcast Response frame from the AP.”

*Delete “*when an MLMETXOPADVERTISEMENT.request primitive contains invalid parameters,*” from 6.3.88.3.3.*

*Delete bullet (a) from the list in 10.12.2.2.*

*Delete bullet (a) from the list in 11.2.3.2.2. Merge (b) into the paragraph test.*

*Delete bullet (a) from the list in 11.2.3.3.2. Merge (b) into the paragraph test.*

* + - 1. No objection – Mark ready for motion
    1. CID 3144 MAC
       1. Review comment
       2. Proposed Resolution: Revised -- Make changes as shown in 11-14/1358r1 for CID 3144.
       3. No objection – Mark ready for motion
    2. CID 3521 MAC
       1. Review Comment
       2. There were a couple questions on the Timeout cases that may be something to keep, so we need to let the TGad experts look at this. DLS setup needs to be checked
       3. Questions:
          1. What does the Reason “TIMEOUT” mean in a request to teardown a relay link? (It is communicated to the peer in the .indication.)
          2. And yet another is the TIMEOUT in the DMG BF-TRAINING service. In this case, there are explicit timeouts that can happen per the behavior described in the text. (These appear to be only for SLS, is that correct?) So, keeping the ResultCode is appropriate, but a more specific name, such as BF-TIMEOUT (or SLS-TIMEOUT?) would be preferred.
       4. This question and proposal to be checked with the proper material experts.
    3. CID 3145 MAC
       1. Review Comment
       2. Proposed Resolution: **Rejected** -- The MAC already has the information needed to fill in these new field values, with local information. The values do not need to be provided by the service user.
       3. No objection – mark ready for motion
    4. CID 3146 MAC
       1. Review Comment
       2. Proposed Resolution: **Revised** -- Make changes as shown in 11-14/1358r1 for CID 3146.
       3. No objection – Mark ready for motion
    5. CID 3520 MAC
       1. Review Comment
       2. Proposed Resolution: Accept
       3. No objection – Mark ready for motion
    6. CID 3061 MAC
       1. Review comment
       2. Proposed Resolution: **Rejected.** GCR streams are managed with DMS Request, DMS Response and some other frame types (ADDBA, Association, etc.) The DMS Request and DMS Response frames are requested with the cited primitives, including when they are used for GCR. The other frame types similarly have their own primitives No change is needed.
       3. No objection – Mark ready for motion
    7. CID 3146 – extra Discussion on removing the “optionally from “New Country” which was adding rows to the primitive
    8. CID 3062 MAC
       1. Review comment
       2. More “desired” needs to be be removed.
       3. Proposed Resolution: **Revised.** -- Replace “desired” with “requested” in both cited locations.
       4. No objection – mark ready for motion
    9. CID 3500 MAC
       1. Review comment
       2. Proposed Resolution: **Revised.** -- Remove the NonAPSTAMacAddress parameter from the parameter list and the parameter description table in the following primitives: MSGCF-ESS-LINK-UP.indication, MSGCF-ESS-LINK-DOWN.indication, MSGCF-ESS-LINK-GOING-DOWN.indication, MSGCF-ESS-LINK-EVENT-ROLLBACK.indication, MSGCF-ESS-LINK-DETECTED.indication, MSGCF-ESS-LINK-SCAN.confirm, MSGCF-ESS-LINK-CAPABILITY.request, MSGCF-ESS-LINK-CAPABILITY.confirm, MSGCF-ESS-LINK-PARAMETERS.request, MSGCF-ESS-LINK-PARAMETERS.confirm, MSGCF-ESS-LINK-THRESHOLD-REPORT.indication, MSGCF-ESS-LINK-COMMAND.request, and MSSME-ESS-LINK-GOING-DOWN.indication.
       3. No Objection – mark ready for motion
       4. However we decided to check with Stephen McCaan or Dave Stevenson as well to ensure it is correct.
    10. CID 3063 MAC
        1. Review Comment
        2. Discussion on the name of the result code
        3. Discussion on the value of Primitives and keeping them due to a primitive in 802.21.
        4. We may need to hold off to check on the primitives in 802.21
        5. Move onto CID 3068 for now.
    11. CID 3068 MAC
        1. Review comment
        2. Proposed Resolution: **Revised.** -- *Change paragraph at 698.34 to:*

“If the Membership Status subfield for a particular group ID is 1, then the corresponding User Position subfield in the User Position Array field contains the group ID’s User Position.”

*Delete Table 8-81.*

* + - 1. No Objection – mark ready for motion
    1. Return to CID 3063 MAC
       1. The check in the dot21 draft we determined that we may need to have a discussion with them –
          1. Need to check this parameter – NonAPSTAMacAddress, but if they do or do not refer to this was not clear.
          2. We believe that we are aligned with the parameter name, we will go with the resolution, but will still follow-up as noted above to make sure all is good.
       2. Proposed Resolution: REVISED (MAC: 2014-11-03 22:59:37Z): Replace "MSSME-ESS-LINK-DOWN-PREDICTED" with "MSSME-ESS-LINK-GOING-DOWN" at 518.56
  1. We are out of time
  2. We will continue with the plan as approved on Tuesday PM1 in this same room, we will add Mark back to the agenda to finish just prior to the Editor CIDs that are on the agenda now.
  3. Recess at 3:33pm CT.

1. **Minutes for 802.11 TG REVmc on Tuesday November 4, 2014 – PM1 13:30-15:30**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 1:30pm
   2. Review agenda

Tuesday PM1

* Proposed Correction to 23.3.18.4.4 - 11-14-1352 – Lisa WARD (5 minutes)
* PHY comments – 11-14/1052 - Edward AU, Mingguan XU
* Editor Comments
  + 1. Request to add CID 3014 Yongho to agenda
    2. Add 11-14/1358 Mark H. to just before Editor in the agenda.
    3. Approved Agenda adjustments
       1. Updated Agenda posted in11-14/1321r3
       2. No objection to approving agenda updates.
  1. Reminder to do attendance.
  2. **Proposed Correction to 23.3.18.4.4** -11-14/1352r0 – Lisa WARD
     1. Section 23.3.18.4.4 possible issue
     2. Review the proposed change.
     3. Dorothy will craft a motion for consideration for Wed PM1 motions part of the meeting.
     4. No objection to the plan
  3. **PHY Comments** -11-14/1052r4- Ningguan XU
     1. This presentation was ready in Sept, but we ran out of time.
     2. Thanks for their patience.
     3. CID 3182 GEN
        1. Review Comment
        2. Review proposed change
        3. Discussion on the issue of not consistent with “of Transmit chain” and some “inTransmit chain”
        4. Proposed Resolution: REVISED (GEN: 2014-11-04 20:05:27Z): Replace “in transmit chain *iTX*” with “of transmit chain *iTX*”.

REVmc editor: please make the following changes in *Clause 22.3*:

On P2470L38 and P2476L35 (CID #3182): Replace “in transmit chain *iTX*” with “of transmit chain *iTX*”.

On P2480L51 (CID #3185): Please start the sentence of "The time domain waveform for the VHT-SIG-A field in a VHT PPDU… " on a new line, separate from the paragraph it currently belongs to.

* + 1. This resolution affects the resolution of several CIDs.
       1. CIDs: 3183, 3184, 3185, 3186, 3188, 3197 GEN
       2. Proposed resolution: Revised, the Change made for CID 3182 clarifies the relationship of the Transmit chain and the frequency segment, and no further change is required.
       3. Discussion on what the 80+80 segments may or may not mean – will we cause an ambiguity with the changes. Multiple streams vs multiple antenna – no the mathematical definition is the same, but we are trying to get the text
       4. We checked the set of resolutions and believe them to be correct.
       5. No objection mark ready for motion for all listed CIDs
    2. CID 3196 GEN
       1. Review comments
       2. Review proposed changes
       3. Discussion on the equations and if there is consistent usage or not.
       4. Concern over the mix of Nsd and Nsd/2.
       5. Concern over the terms for the equation – 160 MHz is different from 80+80MHz.
       6. Discussion on what the original discussion when the equations were formulated.
       7. Proposed resolution: REVISED (GEN: 2014-11-04)– Make changes as noted for CID 3196 in 11-14/1052r4
       8. No objection – mark ready for motion
    3. CID 3187 GEN
       1. Review comment
       2. Proposed Resolution: REVISED (GEN: 2014-11-04 20:22:11Z)- On P2487L51 (CID #3187): Insert a line: “P\_VHTLTF is defined in (22-43)".
       3. No objection – Mark Ready for motion
    4. CID 3192 GEN
       1. Review comment
       2. Proposed Resolution: ACCEPTED (GEN: 2014-11-04 20:25:05Z)
       3. No objection – Mark Ready for motion
    5. CID 3194 GEN
       1. Review comment
       2. Proposed Resolution: ACCEPTED (GEN: 2014-11-04 20:25:26Z)
       3. No objection – Mark Ready for motion
    6. CID 3199 GEN
       1. Review Comment
       2. Proposed Resolution: ACCEPTED (GEN: 2014-11-04 20:27:08Z)
       3. No objection – Mark Ready for motion
    7. CID 3200 GEN
       1. Review comment
       2. Proposed Resolution: REVISED (GEN: 2014-11-04 20:31:27Z) - Make changes as noted for CID 3200 in 11-14/1052r4
       3. No objection – Mark Ready for motion
    8. CID 3667 GEN
       1. Review comment
       2. Discussion of HT and non-HT PPDUs and does that cover everything?
       3. This seems to cover all things. This should be reworded
       4. This is meant to exclude clause 16 and clause 17 (11b)
       5. Note from Adrian:

HT and non-HT PPDUs are the only things understood by an HT STA, and the qualifications is apparently unnecessary. However, I believe this was added by .11ac, in order to exclude the use of a VHT PPDU. That only makes sense if this subclause was also somehow used by a VHT STA.

At this point I realize this is not a "trivial technical" comment, and will assign to the PHY (VHT) group for resolution as it depends on the types of beamforming that a VHT STA can perform.

* + 1. Leaving it as is seemed wrong, making the proposed change does not seems right. Suggest we look at alternatives.
    2. There is a definition for Non-HT format (NON\_HT) on page 2268.32(D3.0). 2313(D3.3)
    3. The reject is acceptable, but need a better definition for the terms used later.
    4. More work is needed to get the right language, but the
    5. Proposed Resolution: REJECTED (GEN: 2014-11-04 20:42:37Z) - The implicit beamforming procedure may include frames that are carried by non-HT modulated packets.
    6. CID 3476 GEN
       1. 11-14/1502r1 has the text/description for this CID
       2. This was deleted from r4, to transfer to the commenter.
       3. This was done as the proposal was to reject and the commenter wanted another chance to change.
       4. Reviewed Comment here to see what the group opinion was.
       5. While it may be redundant, it does no harm.
       6. Proposed Resolution: REJECTED (GEN: 2014-11-04 20:46:09Z) It does not hurt to keep the sub-clauses of CCA-ED in HT, VHT, and TVHT PHYs. According to 4.3.12 (p76.42(D3.0)) the 3Ghz band is included.
       7. No objection – Mark Ready for motion
  1. **CID 3014** -- 11-14/1391r0 Yongho Seok
     1. CID 3014 MAC
     2. Review comment
     3. Also need to delete the extra “responding” so an R1 will be posted.
     4. Proposed Resolution: REVISED (MAC: 2014-11-04 20:57:31Z): Incorporate changes as indicated in 11-14/1391r1 for CID 3014
     5. No Objection – Mark Ready for motion
  2. **MAC CID** – 11-14/1358r2
     1. CID 3524 MAC
        1. Review comment
        2. Commenter said “result codes”, but probably meant “reason codes”.
        3. Review Table 8-52 proposed changes
        4. Thanks for the effort to put in the names for all the reason codes.
        5. Same effort for Status Codes
        6. Status Code for 11 was missing in r1 of the document – r2 captures the correction.
        7. Status code 42 was mistyped as 19 - so need to correct.
        8. Reviewed several random points for SUCCESS
        9. Found a change to just delete the “nonzero” adjective for a status code.
        10. Change 42 to “Status\_Invalid\_Pairwise\_Cypher” (spelling may be different).
        11. Proposed Resolution: REVISED – Incorporate the changes as noted for CID 3524 in 11-14/1358r2
        12. No objection – mark ready for motion
  3. Recess at 3:27pm

1. **Minutes for 802.11 TG REVmc on Tuesday, November 4, 2014 – PM2 14:00-16:00**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 4:00pm
   2. **Review agenda**
      1. Updates to agenda noted in 11-14/1321r3
      2. Review Agenda for Tuesday PM2
   * 11ad Comment resolution:   
     Carlos Cordeiro: 11-14/1274, 11-14/127, 11-14/1413
   * ISO comments 11-13-0123
   * CIDs 3426, 3247, 3429 – 11-14/1357r1, 11-14/1104
   1. **11ad Comments:** 11-14/1274r2 Carlos Cordeiro
      1. CID 3245 GEN
         1. Review Comment
         2. We had discussion on the conference call – there discrepancy or confusion of the TRN-R and TRN-T.
         3. The diagram differences were fixed up in this revision of document.
         4. TRN-Unit is now consistent
         5. Typo corrected – “Moreover” deleted.
         6. Packet\_Type has either the TRN-R-PACKET or TRN\_T\_PACKET types
         7. Proposed Resolution: REVISED (GEN: 2014-11-04 22:16:53Z) Incorporate the text changes for CID 3245 in 11-14/1274r3
         8. No objection – mark ready for motion
      2. CID 3246 GEN
         1. Review comment
         2. The resolution for CID 3245 changes partially addresses this comment.
         3. There is still item (1) that needs more work to address the “BRP Packet” changes.
         4. We can reject as there is not sufficient detail for the most part.
         5. Proposed Resolution: REVISED (GEN: 2014-11-04 22:20:39Z) 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.
         6. No objection – mark ready for motion
      3. CID 3247 GEN – done on Telecon
      4. CID 3248 GEN
         1. Review comment
         2. See page 2380 – table 21-4
         3. Proposed Resolution: REVISED (GEN: 2014-11-04 22:24:23Z)- Incorporate the text changes for CID 3248 in 11-14/1274r3
         4. No objection – mark ready for motion
      5. CID 3249 GEN
         1. Review Comment
         2. There is some confusion and we may need to have a figure for the OFDM figure.
         3. Common Preamble with only one figure seems to be the source of some of the confusion.
         4. We could resolve the CID with a reject or we could just fix it and be done.
         5. AI: Carlos will try to find some time to fix this up.
      6. CID 3250 GEN
         1. Review Comment
         2. Proposed resolution: ACCEPTED (GEN: 2014-11-04 22:35:22Z)
         3. No objection – mark ready for motion
      7. CID 3251 GEN
         1. Review Comment
         2. Proposed resolution: REVISED (GEN: 2014-11-04 22:41:32Z) - Incorporate the text changes for CID 3251 in 11-14/1274r3.
         3. No objection – mark ready for motion
      8. CID 3254 GEN
         1. Review Comment
         2. Proposed Resolution: REVISED (GEN: 2014-11-04 22:44:05Z) Incorporate the text changes for CID 3254 in 11-14/1274r3. Note to commenter - CID 3248 identifies the missing parameters
         3. No objection – mark ready for motion
      9. CID 3257 GEN
         1. Review comment
         2. Similar fix as in CID 3245 (TRN issues)
         3. Proposed Resolution: Revised –Incorporate the text changes for CID 3245 in 11-14/1274r3 (cited CID is different on purpose).
         4. No objection – mark ready for motion
      10. CID 3259 GEN
          1. Review Comment
          2. Proposed Resolution: REVISED (GEN: 2014-11-04 22:53:25Z)– Change the title to “Sector level sweep”. Replace the first paragraph of 21.10.2.1 with “PPDUs transmitted during transmit sector sweep are DMG control PHY PPDUs. PPDUs transmitted during receive sector sweep are DMG control PHY or DMG SC PHY PPDUs.”
          3. No objection – mark ready for motion
      11. CID 3260 GEN
          1. Review comment
          2. Similar to CID 325.
          3. Proposed Resolution: REVISED (GEN: 2014-11-04 22:57:03Z) Incorporate the text changes for CID 3260 in 11-14/1274r3
          4. No objection – mark ready for motion
   2. **“Find DMG BF”** Document 11-14/1275r0 Carlos CODEIRO
      * 1. Review proposal
        2. Review 1478.35 in D3.0
        3. Discussion what causes the issues for the BRP Requests – no token id or dialog id
        4. Concept of not interleaving requests seemed to be ok
        5. Discussion on when the Responding STA can respond to a requesting STA BRP.
        6. Request that more offline dialog take place before bringing it back to REVmc.
        7. AI: Carlos to bring back update
   3. **11ad CIDS** – 11-14/1413r0 Carlos CODEIRO
      1. CID 3240 MAC
         1. Review comment
         2. Proposed Resolution: CID 3240: ACCEPTED (MAC: 2014-11-04 23:12:36Z)
         3. No objection – mark ready for motion
      2. CID 3094 MAC
         1. Review Comment
         2. There is a bit of problem that needs lower case for feedback and ack. Note in resolution for editor…then we found an issue where some articles were missing. These were added and an R1 will be posted.
         3. Proposed Resolution: Revised Incorporate the text changes for CID 33094 in 11-14/1413r1 – Note to Editor – make “feedback” and “ack” lower case when proceeding “procedure” while incorporating changes.
         4. No objection – mark ready for motion
      3. CID 3099 MAC
         1. Review comment
         2. Laughter is the best medicine
         3. Proposed Resolution: REVISED (MAC: 2014-11-04 23:26:09Z): Incorporate changes indicated in 11-14/1413r1 for CID 3099.
         4. No objection – mark ready for motion
      4. CID 3100 MAC
         1. Review comment
         2. Proposed Resolution: Revised Replace “parameters” by “attributes” in the heading of (**10.39 DMG MAC sublayer parameters**) and in the caption of table “**Table 10-24—DMG MAC sublayer parameter values**”
         3. No objection – mark ready for motion
      5. CID 3102 MAC
         1. Review comment
         2. Discussion on possible alterations.
         3. The proposal needs to be have the conditions pulled out for clarity.
         4. A DMG only or an HT only not both.
         5. Proposed Resolution: Revise Incorporate changes indicated in 11-14/1413r1 for CID 3102.
         6. No objection – mark ready for motion
      6. CID 3233 MAC
         1. Review comment
         2. Information Response Frame…sentence change to “The PCP shall send a broadcast Information Response frame and/or shall sends an individually addressed Information Response frames to each STA associated with the PCP.
         3. Proposed Resolution: Revise Incorporate changes indicated in 11-14/1413r1 for CID 3233.
         4. No objection – mark ready for motion
      7. CID 3237 MAC
         1. Review Comment
         2. Proposed Resolution: Revise Incorporate changes indicated in 11-14/1413r1 for CID 3237.
         3. No objection – mark ready for motion
      8. Ran out of time.
   4. **Recess** at 6:01pm
2. **Minutes for 802.11 TG REVmc on Wednesday November 5, 2014 – PM1 13:30-15:30**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 1:30pm
   2. Review agenda

Wednesday PM1

* Motions,
* WDS removal - 11-14/1375 – Guido HIERTZ
* Location CIDs:
  + 11-14/1014, 11-14/1015, 11-14/1276 – Ganesh VENKATESAN
  + 11-14/1413 – Carlos CODEIRO
    1. Discussion on Agenda
       1. Moved SHA-1 hyphenation, etc to Thursday PM1
       2. Added Matt Fischer Thursday PM1 11-14-973
       3. Added Lisa’s Motion to Wed PM1
    2. No objection, Amended Agenda approved
  1. **Motions**
     1. **Motion #79** – **Teleconference CIDs**

Approve resolutions to comments in

* The “Motion MAC-AF” tab in <https://mentor.ieee.org/802.11/dcn/13/11-13-0361-41-000m-revmc-mac-comments.xls>, except CID 3355

## The “Gen Telecon - Oct” tab in <https://mentor.ieee.org/802.11/dcn/14/11-14-0975-09-000m-lb202-gen-adhoc-comments.xlsx>, except CIDs 3281 and 3282

* + - 1. Moved: Adrian STEPHENS Seconded: Jon ROSDAHL
      2. Results 10-0-1 PASSES
    1. **Motion #80** – **Text changes not associated with CIDs**

Incorporate the text changes in the following document into the TGmc draft: <https://mentor.ieee.org/802.11/dcn/14/11-14-1352-00-000m-correction-to-23-3-18-4-4.docx>

* + - 1. Moved: Jon ROSDAHL Seconded: Ganesh VENKATESAN
      2. Result: Unanimous Consent – Motion PASSES
    1. Motion #81 - **Monday & Tuesday CIDs**

## Approve resolutions to comments in

## The “Motion MAC-AG” tab in <https://mentor.ieee.org/802.11/dcn/13/11-13-0361-42-000m-revmc-mac-comments.xls>,

## The “Gen SAT - A” tab in <https://mentor.ieee.org/802.11/dcn/14/11-14-0975-10-000m-lb202-gen-adhoc-comments.xlsx>, [Includes CID 3517 as agreed on 2014-09-05 telecon, typo of 3317 vs 3517 in 11-14-1004r5 notes]

## And CID 3200 in the “PHY VHT” tab in <https://mentor.ieee.org/802.11/dcn/14/11-14-0975-10-000m-lb202-gen-adhoc-comments.xlsx>

* + - 1. Moved: Jon ROSDAHL Seconded: Guido HIERTZ
      2. Results: 13-0-1 motion PASSES
  1. Presentation of 11-14/1375 (Guido HIERTZ)
     1. The term “WDS” has never been well described. Reviewed history of the term. Usage was still there in 2007 in Figure 8-38, so didn’t remove it then. 2012 has removed that usage. It is no longer of any value in the Standard. Recommend removing it completely.
     2. The term is used in the market, so it is useful for that. It is a useful term as a general concept, as well, even if we disconnect it from the details of packet delivery methods, etc.
     3. But, we said the same thing about “ESSID” and we finally got rid of that one.
     4. Been arguing this for 14 years. Running out of energy to argue any more.
     5. Reviewed current status: On teleconference agreed to REJECTED. Generally, due to usage in devices and therefore generally useful.
     6. Options: Delete the term in the draft, or keep the term in the draft
     7. Straw Poll: WDS CIDs 3281, 3282:

1: Delete the WDS term in the draft

2. Keep WDS in the draft.

* + - 1. Straw poll Result: 10 (1) - 2 (2)
    1. We can consider this tomorrow.
  1. **Location CIDs**:
     1. Presentation 11-14/1014r0 (Ganesh VENKATESAN)
        1. Looked at 11-14/1014r1, which Ganesh will post
        2. CID 3060 (GEN): MLME primitives for Fine Timing Measurement have bad parameter lists
        3. Ganesh agrees. Presentation is to clarify and correct some confusion in the presentation made in Athens. Intention is to fix the parameter lists to these primitives, by moving the last four parameters from the .confirm to the .indication (actually, move three and delete the VendorSpecific).
        4. Four editing instructions to accomplish the changes to the primitives: No comments.
        5. Three editing instructions are editorial corrections: No comments.
        6. Will put to motion tomorrow
     2. Presentation 11-14/1015r1 (Ganesh VENKATESAN)
        1. Fixes a set of miscellaneous issues found outside any CIDs
        2. First one: Civic Location and Geospatial Location bits in Capabilities: Discussion: this new text should be in the discussion of when the MIB attribute should be set, not here. Will bring this back after reworking it. Also, make sure the “it” is clear, in the reworked proposal.
        3. Second one: RM Enabled Capabilities element, Civic Location Measurement capability enabled. Got missed when 11v added Civic Location to where 11k only had LCI. Checked capitalization, this matches the other existing fields, even though not to our convention.
        4. Third one: Find Timing Measurement Parameters element text in 8.4.2.166: No comments
        5. Fourth one: Location Configuration Information Report, and Location Civic report, rework and bring back along with the first one, above. Also, the existing text has “has its own configuration configured” for the LCI case – but LCI is measured, not configured. It might be that someone has to measure it to know what the LCI is, but within the scope of the standard this is externally configured (perhaps from the measurement, but that’s out of scope).
        6. Fifth one: Requesting a neighbor report: Will also bring this back. Note that the Fine Timing Measurement capability probably doesn’t belong here.
        7. Sixth one: 10.24.6.1 Overview, 10.24.6.3 Fine timing measurement procedure setup: No comments
        8. Seventh one: 10.24.6.4 Measurement exchange: Not sure about the “successfully”. This is covered in the definition of “FTMs per Burst Fine Timing Measurement frame”, so it is redundant here, just delete that change.
        9. Eighth one: 1024.6.5 Fine Timing measurement parameter modification: No comments
        10. Ninth one: 10.24.6.6 Fine timing measurement termination: No comments
        11. Tenth one: 10.24.6.7 LCI and Location Civic retrieval using fine timing measurement procedure: Text that is both struck and underlined is meant to be struck. Will bring this back, with the above rework
        12. Ganesh will update 11-14/1015 and bring it back.
     3. Presentation 11-14/1276r1 (Ganesh VENKATESAN)
        1. Miscellaneous issues found in Timing Measurement outside any CIDs
        2. No comments.
        3. We can consider this for motion tomorrow.
  2. Presentation 11-14/1413r1 (Carlos CORDIERO)
     1. Started at CID 3263
     2. CID 3263 (MAC)
        1. Review Comment
        2. This text seems to be in D3.0 at 1567L58 and L65.
        3. Clarified this was intended to introduce a faster mechanism. That change isn’t available. So, we’ll reject it for now, and consider a change if brought to a future ballot
        4. Proposed Resolution: REJECTED. This text at 1567L58 allows the use of Announce frames.
        5. No objection. Mark ready for motion.
     3. CID 3648 (MAC)
        1. Review Comment
        2. Proposed Resolution: REVISED. Throughout the draft (there are 2 occurrences) change “I/R-MID subphase” by “I-MID subphase or R-MID subphase”
        3. No objection. Mark ready for motion.
     4. CID 3675 (MAC)
        1. Review Comment
        2. Proposed Resolution: ACCEPTED.
        3. No objection. Mark ready for motion
     5. CID 3239 (MAC)
        1. Review Comment
        2. Proposed Resolution: REVISED. Insert the new subclause as shown in 11-14/1413r1
        3. No objection. Mark ready for motion
     6. CID 3668 (MAC)
        1. Review Comment
        2. Proposed Resolution: REJECTED. 1) All these are variables necessary to explain the behaviour for STAs that have more than one NAV timer. This is important in DMG, since having more than one NAV timer allows exploitation of spatial reuse. 2) Section 9.36.10 is applicable to DMG STAs, since 9.36 is entitled “DMG channel access” and the first paragraph of 9.36.10 states “If a DMG STA supports multiple NAV timers, the number of available NAV timers within the STA shall be not less than aMinNAVTimersNumber.” 3) Section 9.36.10 defines all such variables in the first paragraph itself. Moreover, the pseudocode in the same subclause define their use in the NAV update procedure.
        3. No objection. Mark ready for motion
     7. CID 3669 (MAC)
        1. Review Comment
        2. Proposed Resolution: REJECTED. Having the pseudocode helps with interoperability, since implementations behave the same. Note that there are several examples of pseudocode in the 802.11 standard, particularly in clause 11 (e.g., 11.6.9.5, 11.8.1, 11.8.2.2).
        3. No objection. Mark ready for motion.
     8. CID 3234 (MAC)
        1. Review Comment
        2. Realized that the Proposed Change was supposed to have strikethrough in it (which didn’t make it through the database entry, of course).
  3. **Recess**
     1. Thanks To Mark HAMILTON for taking notes for Wednesday PM1.

1. **Minutes for 802.11 TG REVmc on Wednesday November 5, 2014 – PM2 16:00-18:00**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 4:03pm
   2. Review draft agenda

11-14/1421 3GPP reference changes,

11-14/1353 Extend element ID space,

11-14/1518 Depreciation (or other modification) of 11b: Graham SMITH,

11-14/1358 – Mark HAMILTON

ISO comments 11-13-0123,

Editor CID

* + 1. Add 11-14-1003 Wookbong to Thursday PM1
    2. Add 11-14/1517 Eldad to Thursday PM1
    3. Add 11-14/973r3 Matt FISCHER to Thursday PM1
    4. No objection, approved
  1. **3GPP reference changes**, 11-14/1421r0 (Stephen McCann)
     1. Response to liaison in 11-14/1411r0
     2. Liaison is addressing the moving of the generic container used in WLAN from one TS to another.
     3. This reference is used in .11u
     4. Reviewed 11-14/1421r0
        1. We should also send a liaison back to 3GPP that they should reference the published 802.11 spec, now that 802.11u has been incorporated.
        2. Will consider this document for motion tomorrow (Thursday)
  2. **Extended element ID space**, 11-14/1353r1 (Adrian Stephens)
     1. Recall the concern about running out of ANA assigned element IDs, per the discussion in the plenary
     2. Reviewed document. Has believed requirements, and some Options for solutions
        1. Option 1: allocate an element ID (say, 254), which indicates that the “Information” field is actually a 1 octet element ID extension field, and then 0-254 Information octets
        2. Option 1b: Just noting that we can do this more than once, creating several such blocks, with different element IDs
        3. Open 2: do the same thing, but make the new Information field have 2 octets of extension ID, to get 64K new IDs.
     3. Decisions:
        1. Do we restrict the allocation of existing (remaining) element IDs? This is really a question for the WG.
        2. If we have both Option 1 and Option 2 (we could do both), how do we decide which one a given usage should use?
        3. How do we think about these new IDs? Are they part of the existing space, or new ID spaces?
     4. Reviewed proposed text to accomplish this
     5. Straw Polls:
        1. Discussion below, then came back and ran these
        2. Do you support one or more single-octet extension namespaces using the structure of Option 1?
           1. Results: Yes: 23 No: 0 Abstain: 5
        3. New (added) – Do we agree to allocation n codes now, define 1 of them as a 1-octet extension and be silent now about the length of the extension for the n-1 other codes?
           1. Results: Yes: 19 No:0 Abstain: 6
        4. New (added) - What value for “n”?
           1. Results: 1: 1 2:1 3: 8 4:5 More: 6 Don’t know: 5
        5. Discussion:
           1. (Skipped, after adding new ones) How many Option 1 single-octet extension namespaces should we reserve codes for (vote for as many as you like – 1, 2,3, More, none)?
           2. This depends on how/whether the ANA will allocate any of the ones left (to TGai, for example), or what will happen to TGah’s allocations.
           3. Note that if allocate, say, 2 or 3 now, and then discover we are using them faster than we expected, we can do another one as Option 2 to get a very big block
           4. Suggested this straw poll apply to either Option 1 or Option 2
           5. Objection to this
           6. Added two new straw polls (above)…
        6. Do you support double octet extension now using the structure of Option 2?
           1. Results: Yes:0 No:15 Abstain: 9
     6. Would we start with ID 255 or 254? ANA would probably start with 255 and go backwards, but that is to be seen.
     7. ANQP Info IDs start at 256, to avoid collision of values (even though they are orthogonal concepts). We could/should consider various ways to continue to avoid collisions.
     8. Do this now, or think about it some more and make a decision later? Would really like to get this resolved this week, so TGai can move forward (ANA will be confident enough to allocate its values). ANA has already committed to allocate TGai’s numbers, anyway.
     9. In Table 8-55, show now, that <ANA> ID, with 0-255 ID Extension are all Reserved.
     10. Change “Element ID Extension” to “Extended Element ID” in the field (and Table)?
     11. Will consider this for motion tomorrow.
  3. **Depreciation (or other modification) of 11b**, 11-14/1518r4 (Graham Smith)
     1. CID 3116, 3121, 3124 GEN
     2. General idea: Require 11b devices (clause 16 and 17) to use Energy Detect for CCA. (Allow them to also do the various CS-based methods). Leave 11g protection modes in place, for now. So, everything works as now (by relying on protection). 11b devices will start doing ED, and so over time will start to improve the situation.
     3. If we make this change, doesn’t it (technically) make all the legacy devices “non-conformant”? Yes, but there is 2 years’ notice (probably) until REVmc publishes. It would be nice if we somehow let existing products still be “conformant”
     4. Can we do something with “should” type language to start a new requirement (needs to be stronger than “should” though) without making existing devices non-compliant.
     5. Don’t remove the text completely, but instead have explicit text that notes that the current behavior is (in the future) old behavior that used to be the standard. That lets everyone reading the new Standard still understand and have knowledge of the old text.
     6. Or, could ask some “other” body make this new rule, for all newly produced devices.
     7. Can we say “as of <date> the requirement is …”? Need to research this. Don’t think that is appropriate; it constraints the group from future actions. Note that devices built/shipped before the Standard is published are conformant, by conforming to the Standard that was published then.
     8. Will continue this discussion in future meetings.
  4. **MAC CIDS 11-14/1358r3** Mark HAMILTON
     1. Continue processing from where we left off.
     2. CID 3128, 3129, 3131, 3132 - MAC
        1. Review comments
        2. Proposed Resolution: Revised – Incorporate changes in 11-14/1358r3 for CIDs 3128, 3129, 3131, 3132.
        3. No objection – mark Ready for motion
     3. CID 3391 MAC
        1. Review comment
        2. Question on DMG paragraph
        3. Proposed Resolution: Revised -- – Incorporate changes in 11-14/1358r3 for CID 3391 MAC
        4. No objection – mark Ready for motion
     4. CID 3285 MAC
        1. Review comment
        2. Mark and Guido have volunteered to redraw the figure if needed.
        3. Proposed Resolution: Revised -- – Incorporate changes in 11-14/1358r3 for CID 3285.
        4. No objection – mark Ready for motion
     5. CID 3211 MAC
        1. Not quite ready to discuss
     6. CID 3519 MAC
        1. Review comment
        2. Proposed Resolution: **Rejected.** The particular BNF statement referenced in the comment is for frame exchange sequences per the comment (shortened to “frame sequence” in the actual BNF). Per the text in 9.3.2.5 describing transmission of fragments without releasing control of the medium, it is clear that all fragments (and their Acks) are transmitted as part of one frame exchange sequence. Thus, the BNF is correct as is.
        3. No objection – mark Ready for motion
     7. CID 3523 MAC
        1. Not ready to discuss today
     8. That is the end of the CIDs ready for today.
     9. Status check on CID 3521
        1. Review the status of the changes being checked up on.
        2. Need to check on one other “TIMEOUT” location.
        3. May look at it tomorrow
     10. Status check on CID 3355
         1. Spreadsheet was posted showing it was resolved, but it has the wrong document number referenced -- need to update document to 11-14/1104r5
         2. Move to the next tab for the MAC comments for a motion.
  5. **ISO Comments** – 11-13/0123r7 – Dorothy STANLEY
     1. We receive comments from ISO periodically as our amendments are reviewed by them.
     2. Review the ISO comments one at a time.
     3. CN1 – N16035-11ac
        1. Review comment
        2. Proposed Resolution: Reject: - see text is in 11-13/0123r7
        3. No objection –
     4. CN2 – N16035-11ac
        1. Review Comment
        2. Proposed Resolution: Revised - see text is in 11-13/0123r7
        3. No objection –
     5. CN3 – N16035-11ac
        1. Review Comment
        2. Proposed Resolution: Reject: - see text is in 11-13/0123r7
        3. No objection –
     6. CN4 – N16035-11ac
        1. Review Comment
        2. Proposed Resolution: Reject: - see text is in 11-13/0123r7
        3. No objection –
     7. FR – N16035-11ac
        1. Review Comment – France National Body Abstains.
        2. Proposed Resolution: Reject: - see text is in 11-13/0123r7
        3. No objection –
     8. CN1 – N16036-11af
        1. Review Comment
        2. Proposed Resolution: Revised - see text is in 11-13/0123r7
        3. No objection –
     9. FR – N16036-11af
        1. Review Comment – France National Body Abstains.
        2. Proposed Resolution: Reject: - see text is in 11-13/0123r7
        3. No objection –
  6. **Editor Comments**: - Adrian STEPHENS
     1. Review Editor CID status
     2. CID 3635
        1. Review Comment
        2. Look at Table 8-103
        3. Discussion on SubElement vs SubElement IDs
        4. From the AdHoc Notes:

EDITOR: 2014-09-13 06:16:50Z - I don't see anything wrong in overloading subelement IDs with other proper names, because they should always be followed by "subelement". If the text is confused, it is because the "subelement" is missing. Adding an ID in a table such as this would, for consistency, require it in all such tables, which is an unnecessary and huge amount of work. The better solution is to add any missing "subelement"s. This needs a submission.

* + - 1. The commenter thought that the Name Column was a name for an ID not the name of the Subelement.
      2. Proposed Resolution: EDITOR: 2014-09-13 06:16:50Z - There is nothing wrong in overloading subelement IDs with other proper names, because they should always be followed by "subelement". If the text is confused, it is because the "subelement" is missing. This is the official name of the subelement.
    1. Out of time.
  1. Review Agenda for Thursday PM1
     1. Noted the changes made at the beginning of the time block to the Agenda for Thursday.
  2. Recess at 18:00 (6:00pm) – There were 26 people at the end of the session in the room.
  3. Thanks to Mark HAMILTON for taking the notes for the first part of the block.

1. **Minutes for 802.11 TG REVmc on Thursday November 6, 2014 – PM1 13:30-15:30**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 1:30pm
   2. Review agenda

11-14/1003 -CID 3396 – Wookbong LEE,

11-14/1517 - CID 3721 - Eldad,

11-14/793 - Matt FISCHER

11-14/1519 - ANQP addition - Stephen MCCANN

CIDs 3426, 3247, 3429 – 11-14-1357r1, 11-14-1104; 11-14-1494, 1493 – Dan H

* + 1. 2.1 No objection, approved
  1. **CID 3721 resolution, 11-14/1517r0** (Eldad PERAHIA)
     1. CID 3721 (GEN)
        1. Reviewed document.
        2. Proposed Resolution: REVISED. Incorporate changes as shown in 11-14/1517r0 for CID 3721.
        3. No objection – no further discussion.
        4. Will add to upcoming motion – add to GEN AdHoc “GEN SAT – B” tab
  2. **CID 3396 – 11-14/1003r3** – Wook-bong LEE
     1. CID 3396 MAC
     2. Review Comment
     3. Review Proposed changes
        1. Change PPDU in Non\_HT format to NON\_HT PPDU
        2. Discussion on when it should or should not be used.
     4. Proposed Resolution: CID 3396: REVISED (MAC: 2014-11-06 19:44:51Z): Incorporate changes as shown in 11-14/1003r4 for CID 3396.
     5. No objection - mark ready for motion and move to new tab “Motion MAC-AI”
  3. **Review 11-14/793r5** Mathew FISCHER
     1. CID 3297, CID 3298 --MAC
        1. Review Comment
        2. Review proposed changes
        3. Missing a section although the discussion could have covered it if we could record discussion.
        4. Discussion – 20 vs 40 is not HT 20 – however ½ of VHT 160 is VHT80.
        5. Discussion - NSS to be different for 2 Stream for 160 as 4 stream at 80X80 –
        6. Discussion on details of page 5-6.
        7. Max for 80+80 = 2 and for 80 =
        8. The text may cause a lot of comments – the form of the equations may be an issue.
        9. Adrian offered to help with editorial issues offline and bring back to the group after a telecom
        10. Some modes may not be usefulness -- Mode 1 and 2 are questioned on the usefulness – There was debate on the value of the ½ NSS – but others thought it was really a flexibility that was lost in 11ac. The proposal is attempting to put back in some flexibility.
        11. Matthew will take this offline and work to refine the text to ensure very good and stable text to put into the draft.
  4. **Review 11-14/1519r1** - Stephen MCCAAN
     1. Not a CID related submission
     2. Request to add a new ANQP element Definition
     3. Fields to add: Venue URI, and Cost. With this addition then update 1st Reserved element.
     4. Discussion on the Cost type field values.
        1. <start Mark Take Notes>
        2. 5 Picking up during Stephen MCCANN’s presentation on ANQP:
        3. 5.1 Currency Code field is both a “2-octet” and a “3 digit code”, what does this mean? Stephen will modify (maybe “16 bit integer”?)
        4. 5.2 Adrian requests time off-line to clean up some editorial issues, before we motion this
        5. 5.3 XML sent over-the-air has been known in the past to create an attack vector. Consider using something else to avoid this.
        6. 5.4 In ANQP, you can ask for “the Venue URI”. But what if there are multiple venues associated with this BSS, how do you ask for a particular venue (or can you)? Stephen will consider.
        7. 5.5 Also, the Venue might want to point to multiple resources (and therefore multiple URIs to point to those). Consider the Venue URI being a list of URIs to resources. Stephen will consider.
        8. 5.6 Stephen will update and bring back in January.
        9. <end Mark Take Notes>
  5. **HASH Function Naming Conventions** – 11-14/1357r2 – Dan HARKINS
     1. Proposal for a single way to call out the HASH functions.
     2. CID 3426 GEN
        1. Proposed Resolution – Reject: yes is the output length. And there is no confusion as the convention is [HMAC-]SHA-<name>[-n].
     3. CID 3247 EDITOR
        1. Proposed resolution – Revised incorporate the text changes in 11-14/1357r2
     4. CID 3429 EDITOR
        1. Proposed Resolution: Revised incorporate the text changed in 11-14/1357r2
     5. Discussion on the format of the HASH name in clause 1.4
     6. More discussion on the point of having a consistent format and where the definition of this format came from.
     7. Agree to the proposed Resolutions
  6. **Review 11-14/1494r1**– Dan HARKINS
     1. Submission does not deal with a specific CID
     2. Abstract from doc: The behavior for performing PMKSA Caching with a PMKSA established by SAE is ambiguous. This submission clarifies the expected behavior.
     3. General consensus for the proposal.
     4. Will be brought for motion later.
  7. **Review 11-14/1493r0** - Dan HARKINS
     1. Submission does not deal with a specific CID
     2. Abstract from 1493: This document proposes additions to the standard to support transmission of a username to identify a password used by the SAE protocol.
     3. Discussion on the possible default password that might be implied – no it is not implied nor do we tell how to implement.
     4. Note that the Challenge text field is limited to 253 so the MIB is set to a limit of 253.
     5. Question on what group it was in for conformance declaration.
     6. dot11PasswordAuthCompliance- would be the good group to be use
     7. Question on if removing the deprecated MIB objects to clean up the Annex.
     8. When changing a compliance group, the proper way is to deprecate the old compliance group and create a new one with the new fields.
        1. So for now we are not being too rigorous, so we will just add the two fields in this case.
        2. Does this set a precedence on the changes to the MIB?
        3. Hold on that thought till a later discussion.
     9. Editor Instruction: Add dot11RSNAConfigPassword and dot11RSNAConfigPasswordAPSSID to the dot11PasswordAuthComplianceGroup at 3284.37.
     10. Add “as specified by dot11RSNAConfigPasswordIdentity” to the end of “provisioned username” in two cases.
     11. Other usage of ”provisioned username”
     12. Remove sentence that says the string is less than 254, as it is described in the MIB.
     13. Time was called.
  8. Recess at 3:31

1. **Minutes for 802.11 TG REVmc on Thursday November 6, 2014 – PM1 16:00-18:00**
   1. **Called to order** by Dorothy STANLEY (Aruba) at 4:01pm
   2. Review agenda

* Motions
* 11-14/1015 – Ganesh VENKATESAN,
* 11-14/1521 – Dick ROY
* 11-14/952 – Gabor BAJKO,
* 11-14/1413 – Carlos CORDEIRO
* Plans for January, Schedule
* AOB, Adjourn
  1. Motions:
     1. **Motion #82** - Extended Element ID space

Incorporate the text changes in the following document into the TGmc draft:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1353-03-000m-proposal-to-extend-element-id-space.doc> and request 3 Element ID codes for extension purposes from the ANA.

* + - 1. Moved: Adrian STEPHENS 2nd :Guido HERTZ
      2. Discussion: review minor changes from Wednesday’s discussion that were received since presentation.
      3. Results: 20-0-0 – Motion passes
    1. **Motion #83 -** Text changes – Timing Measurement

Incorporate the text changes in the following document into the TGmc draft: <https://mentor.ieee.org/802.11/dcn/14/11-14-1276-01-000m-issues-discovered-while-resolving-tgah-comments.doc> (Ganesh VENKATESAN)

* + - 1. **Moved:** Ganesh VENKATESAN 2nd Michael MONTEMURRO
      2. **Results:** unanimous consent - no objection – motion passes
    1. **Motion #84 -** ISO Comments

Approve resolutions to comments in The “N16035-11ac” and “N16036-11af” tabs in [https://https://mentor.ieee.org/802.11/dcn/13/11-13-0123-07-000m-iso-jtc1-sc6-8802-11-2012-comments.xls](https://https/mentor.ieee.org/802.11/dcn/13/11-13-0123-07-000m-iso-jtc1-sc6-8802-11-2012-comments.xls)

* + - 1. Moved Adrian STEPHENS 2nd Michael MONTEMURO
      2. Results: 15-0-2 – Motion Passes
    1. **Motion #85 –** Text changes – 3GPP Liaison

Incorporate the text changes in the following documents into the TGmc draft:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1421-00-000m-reference-change-to-ts-24-234.docx>

And approve the liaison in <https://mentor.ieee.org/802.11/dcn/14/11-14-1520-00-0000-liaison-response-3gpp-document-reference.docx> with editorial license to the WG chair

* + - 1. Moved: Mike MONTEMURRO 2nd Filip MESTANOV
      2. Results: 19-0-0 -- Motion Passes
    1. **Motion #86** - Wednesday CIDs

Approve resolutions to comments in The “Motion MAC-AH” tab in <https://mentor.ieee.org/802.11/dcn/13/11-13-0361-44-000m-revmc-mac-comments.xls>

* + - 1. Moved: Mark HAMILTON 2nd David HUNTER
      2. Results: 14-0-3 motion passes
    1. **Motion #87 -** Thurs PM1 CIDs + WDS

Resolve the indicated CIDs as follows:

CIDs 3427 and 3429 as “revised” with a resolution of “incorporate the text changes in 11-14/1357r2”

CID 3426 as “Rejected” with a resolution of “256 is the output length. And there is no confusion as the convention is:[HMAC-]SHA-<name>[-n]”

CID 3721 as “Revised” with a resolution of “Incorporate the text changes in 11-14-1517r0”

CID 3396 as “Revised” with a resolution of ““Incorporate the text changes in 11-14-1003r4 for CID 3396”

CIDs 3281 and 3282 as “Revised” with a resolution of “Incorporate the text changes in 11-14-1375r0.

* + - 1. Moved: Jon ROSDAHL 2nd Michael MONTEMURRO
      2. Discussion –
         1. The author of an alternative proposal objects to the proposed proposal in the motion. – Would like the first 3 CIDs considered later.
         2. Speak for the motion – we have discussed this on the telecom, we have listened to alternatives and this is the one that is currently agreed to.
         3. While we have this resolution potentially in the resolutions, it does not preclude another motion and submission that could change the resolutions.
      3. Results 13-1-5 motion passes
    1. **Motion #88** - Text changes – PMKs & SAE

Incorporate the text changes in the following document into the TGmc draft: <https://mentor.ieee.org/802.11/dcn/14/11-14-1494-01-000m-pmk-caching-with-sae.docx>

* + - 1. Moved: Guido Hiertz 2nd Adrian STEPHENS
      2. Results 17-0-1 Motion Passes
    1. **Motion #89 -** CID 3052

Resolve CIDs 3052 as “revised” with a resolution of “Incorporate the text changes listed below: Change the protocol capability and reference cell values at 2762.45 to: “Transmitter of Fine Timing Measurement Range request and receiver of Fine Timing Measurement Range report” and “10.11.9.11”.

 Change the protocol capability and reference cell values at 2762.53 to: “Receiver of Fine Timing Measurement Range request and transmitter of Fine Timing Measurement Range report” and “10.11.9.11”.”

* + 1. Moved Jon ROSDAHL 2nd: Michael MONTEMURRO
    2. Results: No objection – unanimous consent – Motion Passes
  1. **Motion #90 –** CIDs 3432, 3433

Resolve CIDs 3432 and 3433 as “revised” with a resolution of “Incorporate the text changes as noted on slide 21 of 11/1321r7

Text is listed below:

Change “destroy” to “delete” at 102.56, 103.7, 103.13, 1671.12, 1695.5, 1695.40, 1863.33, 1870.5, 1870.14, 1870.20, 1911.1, 1938.43, 2062.45.

 Change “destroyed” to “deleted” at 102.55, 238.62, 1862.12, 1867.52, 1870.25, 1922.49, 1922.50, 2010.18.

 Change “destruction” to “deletion” at 1173.24.

Change 1867.53 as follows: “Protocol instances that transition into *Nothing* state will shall immediately be destroyed with their state zeroed and returned to the memory pool irretrievably deleted.”

 Change 1870.5 as follows: “The parent process also destroys shall delete protocol instances by zeroing out the state of the protocol instance and returning it to the memory pool irretrievably.”

Change 1937.44 as follows: “securely irretrievably delete all unused the other bits”.

at 1938.43 (“— Truncate-128(-) returns the first 128 bits of its argument and irretrievably deletes securely destroys the remainder.”).”

Also – Delete the extra space at 1952.24. and – Change “from the keyseed” to “from *keyseed*” at 2009.50 and change “Keyseed” to “*keyseed*” at 2010.18

* + 1. Note: This resolution from 11-14-1104r4 with only changes applicable to these comments (CIDS)
    2. Moved: Mike MONTEMURRO 2nd : Adrian STEPHENS
    3. Result: 11-0-3 Motion Passes
  1. **Review 11-14/1521r0** – Dick ROY
     1. Background –
* From their inception, 802.2 (LLC) and 802.3 (L/T aka Ethernet) have been and continue to be incompatible layer-2 (LLC-sublayer) protocols.
* Somewhere between 1999 and 2007, IEEE 802.11 specifically designated LLC (as defined in 802.2) as the Logical Link Control sublayer protocol to be used in all 802.11 STAs.
* Ethernet now dominates the LAN market (FDDI and Token Ring are disappearing)
* IEEE 802.2 was withdrawn in 2011 and is no longer supported by IEEE (ISO maintains a “stabilized” version in ISO/IEC 8802-2:1998)
* IEEE 802-2014 Overview and Architecture explicitly discourages the use of 802.2 LLC in the future.
* *“New IEEE 802 standards shall support protocol discrimination in the LLC sublayer using EPD.”*
  + 1. Current Support:

In October 2014, TC 204 passed the following resolution:

“*Resolution 1072:*

ISO/TC 204 resolves to support a change from LPD to EPD in the 802.11 specifications for 5.9 GHz frequency bands. APPROVED”

* + 1. Review change proposed – 11-14/1522r0
    2. Discussion:
       1. While there are no deployments of 5.9 GHz today, but before the current revision is published there may be.
          1. There are efforts being made to several changes that will not only change the LLC format, but also several Security issues.
          2. They need stable drafts that NISTA(sp?) can point to for a stable path forward.
       2. In Figure 5.1/5.2 – the proposal includes a proposal for stating the 5.9 GHz, but that may not be needed.
          1. Agreed to make the requested change.
       3. Others also were concerned with the figure change.
    3. Question on what the support for this proposal may be.
    4. Feedback – some want to look at the hardware implications. – This will resolve the issue with 802.11 for 17 years. – one voiced an opinion that not needed.
       1. This band is considered a potential band for Wi-Fi, and so we need to be careful on a change like this.
       2. If 802.11ac were approved to use this band, would it be affected? – no
       3. OCB = 802.11p
    5. Straw-poll:
       1. Do you support a change in 5.9GHz (OCB – 11p) non-VHT from LPD to EPD?
       2. Yes -- 15-
       3. No - 0
       4. More Info - 7
       5. Abstain -1
    6. This is a subgroup of the WG, and is a poll of the REVmc Task Group.
    7. Opinions may vary from day to day as the group make-up may be different.
  1. **Review Document 11-14/1015r2** – Ganesh VENKATESAN
     1. Fine timing Measurement Procedure Setup –
     2. Changes from previous presentation was discussed
     3. Some changes backed out until more review can be done.
     4. Review changes being proposed
     5. Will be motioned later today.
  2. **Review Doc 11-14/1014r1** Ganesh VENKATESAN
     1. Review that the changes were made as we suggested from the discussion yesterday.
     2. After the discussion yesterday, an R1 was posted – this is proposed to be ready for motion.
  3. **Motion** 
     1. Motion #91 – Fine Timing Measurement
        1. Incorporate the text changes in the following document into the TGmc draft: doc:11-14/1015r2 and Resolve 3060 as “Revised” with resolution of “incorporate the changes in 11-14/1014r1”
        2. Moved Ganesh VENKATESAN 2nd Gabor BAJKO
        3. Results: 17-0-1 – motion passes
  4. **Review 11-14- 952r4** – Gabor BAJKO
     1. 3 CIDs – CID 3105, 3401, 3071
     2. CID 3105 MAC
        1. Review comment
        2. Proposed Resolution: Revised – incorporate the changes in 11-14/0952r4 for CID 3105.
     3. CID 3401 and 3071
        1. Both of these were done in Athens
  5. **Motion**
     1. **Motion #92** Location

Resolve CID 3105 as “Revised” with a resolution of “Incorporate the text changes in 11-14/952r4 for CID 3105

* + 1. Moved Gabor BAJKO 2nd Jonathan SERGEV
    2. Results: 16-0-0 Motion Passes
  1. **Review doc: 11-14/1413r2** – Carlos CORDEIRO
     1. CID 3234 MAC
        1. Review comment
        2. Revised – incorporate the changes in 11-14/1413r2 for CID 3234
        3. No objection – mark ready for motion
     2. CID 3232 MAC
        1. Review comment
        2. Question on the use of Awake Window Element
        3. There was a question on the use of can, so after discussion, it was decided not to resolve this one this time.
     3. CID 3392 MAC
        1. Review Comment
        2. 1271.39 has a paragraph that is not necessary. A future comment would be needed to remove it.
        3. Question on when things do or not apply to the cited text.
        4. Time was called.
  2. **Motion**:
     1. **Motion #93 -** DMG CID 3234
        1. Resolve CID 3234 as “Revised” with a resolution of “Incorporate the changes in 11-14/1413r2 for CID 3234”
        2. Moved Carlos CORDEIRO 2nd Ganesh VENKATESAN
        3. Result unanimous – no objection – motion Passes
  3. **January Planning**
     1. January Objectives: Complete comment Resolution
     2. Conference Calls 10am Eastern 2 hour

Nov 21, Dec 5, 12, 19, Jan 9

* + 1. **Ad-Hoc meeting – Planning** 
       1. 2015 July 7-8-9-10 (Tues-Friday, HI location) to process SB comments
       2. Donald volunteered to handle logistics for Ad-Hoc
       3. While we may be able to vote on telecons, but we need to keep careful processing of CIDs.
    2. **Schedule review**
       1. 20 July 2012 – 12 Sept 2012 – Call for Comment/Input
       2. 29-30 Aug 2012 – NesCom, SASB PAR Approval
       3. Sept 2012 – Begin to process CC input, 11aa, 11ae integration
       4. Dec 2012 – March/May 2013 – 11ad integration
       5. Jan 2013 – First WG Letter ballot - without 11ad – on D1.0
       6. Sept 2013 – Letter ballot on D2.0
       7. Dec 2013 – May 2014 – 11ac, 11af integration – D3.0 in May 2014
       8. July 2014 – Mandatory Draft Review
       9. **Jan 2015 – D4.0 Recirculation, goal to follow with D5.0 unchanged (was Nov 2014) – if no recirc this week**
       10. **Form Sponsor Pool: Open Dec 15th or so, close Feb 2015 – (min 45 days); good for 6 months (end of July 2015)**
       11. EC conditional SB approval March 2015
       12. **\*new\* - plan ad-hoc comment resolution meeting July 2015**
       13. Nov 2015/March 2016 – WG/EC Final Approval
       14. March 2016 – RevCom/SASB Approval
    3. Availability of 11mc in the IEEE store

D3.0 is available

* + 1. Forward to ISO JTC1/SC6 WG1

D4.0 after successful ballot

* 1. Adjourned 6:00pm

**References:**

Monday PM1:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1358-00-000m-lb202-mah-assigned-comments.docx>

https://mentor.ieee.org/802.11/dcn/14/11-14-1358-01-000m-lb202-mah-assigned-comments.docx

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-01-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-02-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1008-00-000m-revmc-minutes-for-sept-2014-athens.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1336-03-000m-tgmc-telecon-minutes-oct-2014.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0095-14-000m-editor-reports.ppt>

Tuesday PM1:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1352-00-000m-correction-to-23-3-18-4-4.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1052-04-000m-revmc-d3-0-comment-resolutions-for-clauses-22-3-3-8-10-11-19-21-9-32-2-1.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1052-01-000m-revmc-d3-0-comment-resolutions-for-clauses-22-3-3-8-10-11-19-21-9-32-2-1.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1391-00-000m-lb202-cid3014.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1358-02-000m-lb202-mah-assigned-comments.docx>

Tuesday PM2:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1274-02-000m-11ad-phy-comment-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1274-03-000m-11ad-phy-comment-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1275-00-000m-11ad-beamforming-fixes.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1413-00-000m-resolution-to-11ad-cids.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1413-01-000m-resolution-to-11ad-cids.docx>

Wednesday PM1:

<https://mentor.ieee.org/802.11/dcn/13/11-13-0361-41-000m-revmc-mac-comments.xls>

<https://mentor.ieee.org/802.11/dcn/14/11-14-0975-09-000m-lb202-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1352-00-000m-correction-to-23-3-18-4-4.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0361-42-000m-revmc-mac-comments.xls>

<https://mentor.ieee.org/802.11/dcn/14/11-14-0975-10-000m-lb202-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-0975-10-000m-lb202-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1375-00-000m-resolution-to-cids-3281-and-3282.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1014-00-000m-resolution-for-cid-3060.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1014-01-000m-resolution-for-cid-3060.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1015-01-000m-some-clarifications-to-the-specification-related-to-location.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1015-02-000m-some-clarifications-to-the-specification-related-to-location.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1413-01-000m-resolution-to-11ad-cids.docx>

Wednesday PM2:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-04-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1358-03-000m-lb202-mah-assigned-comments.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1421-00-000m-reference-change-to-ts-24-234.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1411-00-0000-liaison-3gpp-document-reference.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1353-01-000m-proposal-to-extend-element-id-space.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1518-04-000m-ed-cca-clause-16-and-17-text.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1358-03-000m-lb202-mah-assigned-comments.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0123-07-000m-iso-jtc1-sc6-8802-11-2012-comments.xls>

Thursday PM1:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-05-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1517-00-000m-cid3721.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1003-03-000m-proposed-comment-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-0793-05-000m-lb202-cid3296-cid3297-bw-nss-support-partitioning.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1519-01-000m-anqp-update-for-venue-uri.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1357-02-000m-convention-for-naming-sha-hashes.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1494-01-000m-pmk-caching-with-sae.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1493-00-000m-username-sae.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1493-01-000m-username-sae.docx>

Thursday PM2:

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-06-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1321-07-000m-tgmc-agenda-november-2014.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1353-03-000m-proposal-to-extend-element-id-space.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1276-01-000m-issues-discovered-while-resolving-tgah-comments.doc>

[https://https://mentor.ieee.org/802.11/dcn/13/11-13-0123-07-000m-iso-jtc1-sc6-8802-11-2012-comments.xls](https://https/mentor.ieee.org/802.11/dcn/13/11-13-0123-07-000m-iso-jtc1-sc6-8802-11-2012-comments.xls)

<https://mentor.ieee.org/802.11/dcn/14/11-14-1421-00-000m-reference-change-to-ts-24-234.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1520-00-0000-liaison-response-3gpp-document-reference.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0361-44-000m-revmc-mac-comments.xls>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1494-01-000m-pmk-caching-with-sae.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1104-04-000m-resolutions-for-some-mac-pics-and-security-comments-on-11mc-d3-0-lb202.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1521-00-000m-epd-for-ieee802-11-5-9ghz-operations.pptx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1522-02-000m-lpd-to-epd-in-5-9ghz.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1015-02-000m-some-clarifications-to-the-specification-related-to-location.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1014-01-000m-resolution-for-cid-3060.doc>

<https://mentor.ieee.org/802.11/dcn/14/11-14-0952-04-000m-resolution-to-location-comments.docx>

<https://mentor.ieee.org/802.11/dcn/14/11-14-1413-02-000m-resolution-to-11ad-cids.docx>