IEEE P802.11  
Wireless LANs

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| REVmc BRC Face to Face meeting April 25-28 - Cambridge | | | | |
| Date: 2016-05-02 | | | | |
| Author(s): | | | | |
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|  |  |  |  |  |

Abstract

Minutes for the REVmc BRC Face to Face session April 25-28 – Cambridge, UK

R1: corrects Motion #214 which labeled CID 7780 incorrectly – should be “7780 (EDITOR)”.

1. **REVmc BRC Face to Face in Cambridge Monday, 25 April 2016, AM1, 10:00-12:00pm UK**
   1. **Called to order** at 10:02am UK Time by the chair, Dorothy STANLEY (HPE)
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Edward AU   
(Huawei);

Called in during some part of the meeting:

* 1. **Review patent Policy**
     1. No Issues
  2. **Review draft agenda** 11-543r1
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-01-000m-agenda-brc-cambridge-april-2016.docx>
     2. **Cambridge meeting April 25-26-27-28 2016**

We will use the webex dial-in bridge listed below:

[https://meetings.webex.com/collabs/meetings/join?uuid=MAN6D4ES96THC85AJMUS8RC1CQ-4O2](https://www.google.com/url?q=https%3A%2F%2Fmeetings.webex.com%2Fcollabs%2Fmeetings%2Fjoin%3Fuuid%3DMAN6D4ES96THC85AJMUS8RC1CQ-4O2&sa=D&usd=2&usg=AFQjCNFmohSVuZ6p1zaTtSzGZEguY5-UzA) WebEx Online Meeting number: 198 098 041

Meeting password: This meeting does not require a password.

Audio Connection +1-415-655-0001 US TOLL Access code: 198 098 041

**The general agenda for each time slot is:**

1. Call to order, attendance, and patent policy

2. Editor report (first session)

3. Comment resolution (see below)

4. AOB

5. Adjourn

Time-slots (UK time) are:

**Monday April 25 AM1 10:00-12:00**11-16-0273 – Adrian Stephens – 45 mins  
11-16-0260 – Adrian Stephens  
11-16-0303 – Graham Smith – 60 mins

**April 25 PM1 1:00-3:00pm**CID 7509 – Jon Rosdahl  
11-16-276 – Mark Rison (75 mins)  
11-16-tbd – Jouni Malinen CIDs (40 mins)  
 **April 25 PM2 3:30-6:00pm**11-16-541r1 – Assaf KASHER – Fixes to DMG extensions added in 11-16-0220r3 for CID 7142. Note that CID 7138 is also resolved with 11-16-220r3 and the 541 document. (15 mins)  
11-16-0303 - Graham SMITH (75 mins)  
11-16-228, 11-16-385, 11-16-304, 11-16-237, 11-16-221, 11-16-278 (Graham)  
Mark Hamilton CIDs? (30 mins)  
  
**Tuesday April 26 AM1 10:00-12:00**  
11-16-0298 – Dorothy Stanley ( 60 mins)  
11-16-0276 – Mark Rison (60 mins)  
 **April 26 PM1 1:00-3:00pm**  
11-16-0303 – Graham Smith (110 mins)  
 **April 26 PM2 3:30-6:00pm**11-16-0tbd – Sigurd CIDs  
FLL Pulled CIDs  
Motion MAC-BP and Motion MAC-BO pulled: 7220, 7153, 7749, 7774, 7776, and 7590   
Motion MAC-BQ pulled  
Gen-Macau-A Pulled  
 **Wednesday April 27 AM1 10:00-12:00**11-16-0501 – Edward Au – 30 mins   
11-16-0276 - Mark Rison (90 mins)

**April 27 PM1 1:00-3:00pm**11-16-various – Graham Smith (90 mins)  
Adrian CIDs  
 **April 27 PM2 3:30-5:30pm:**Motions (30 minutes)  
11-15-1184 – Dan Harkins (15 mins)  
11-15-447r2 -   
11-16-0384 – Dan Harkins, CIDs 7533, 7536, and 7537  
11-16-tbd Matthew Fischer CIDs  
 **Thursday April 28 AM1 10:00-12:00**11-16-0276 - Mark Rison (110 mins)

**April 28 PM1 1:00-3:00pm**CIDs - TBD

**April 28 PM2 3:30-6:00pm:**Motions (30 minutes)  
11-15-0292 - Peter E – CID 7170   
TBD – Mark Hamilton?

* + 1. **Motion to approve Agenda** – Moved: Adrian Stephens 2nd: Graham SMITH
    2. **Results**: No objection – Motion passes - update to be posted.
  1. **Editor Report** – Adrian STEPHENS (Intel)
     1. D5.3.pdf now posted in members area
     2. Has the approved changes through March plus the editorial corrections.
     3. Recent batch of approvals are awaiting this week’s approvals as well.
     4. About 300 comments left to resolve.
  2. **Review Doc: 11-16/273r8** Adrian STEPHENS (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0273-08-000m-sb1-stephens-resolutions-part-3.doc>
     2. Review previous location and status of pending CID 7103, and CID 7770
     3. CID 7038 (MAC) 11-16/273r8
        1. Review updated changes since last discussion
        2. A Hyperlink was missing and needs to be updated.
        3. Change “If the” to “If a” in two places.
        4. Check the changes against the 5.3 version as the CID and submission are against d5.0.
        5. Concern that we have lost the “Vendor specific” sub-element
           1. In this location the sub-element was thought to be unique
           2. The clue is in the name – the “sub-element” is supposed to be a part of an element. In this case, it is in in the context of a Frame rather than an element. The issue is that the action field does not define its length, so you need to determine the length of the fields.
        6. What other Frames were in this case? We may want to fix the other two, which are not to be confused with the many “sub-element” that is part of an element.
           1. Optional Sub-elements in WMN Notification frame Request - p1023
           2. Discussion on issues with the Subelement ID that could be confused.
           3. Discussion on how Sub-elements with Vendor Specific elements and sub-elements are non-discernable.
        7. Still open on discussion on the extra two frames, but resolve the CID as sown
        8. Proposed Resolution: Revised: Make changes in 11-16/273r9 < <https://mentor.ieee.org/802.11/dcn/16/11-16-0273-09-000m-sb1-stephens-resolutions-part-3.doc>> These changes follow the outline provided in the comment.
        9. This has some open debate, so will be brought as a separate motion for this Resolution..
     4. Review Status of remaining open CIDs
        1. CID 7074 – open for input from Ganesh
        2. CID 7062 (MAC)– transferred to Security
        3. CID 7075 – still open for discussion later this week
        4. CID 7077 – Need input from Ganesh
        5. CID 7481 – already done
        6. CID 7691 – open for discussion still
        7. CID 7694 – same issue
        8. CID 7783 – reassigned to Jouni
  3. **Review doc 11-16/303r2** - Graham SMITH (SR Technologies)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0303-02-000m-resolution-of-several-cids-for-d5.docx>
     2. CID 7496 (MAC)
     3. Review Comment
     4. Review the “IFSs” list that is given at p1629.
     5. See context at p1296 (bottom) (10.3.7)
     6. Proposed Resolution: Revised: change

*“The Slot Time (in microseconds) that the MAC uses for defining the PIFS and DIFSs. See 10.3.7 (DCF timing relations).”*

*To*

*“The Slot Time (in microseconds) that the MAC uses for defining IFSs. See 10.3.7 (DCF timing relations).”*

* + 1. No objection - Mark Ready for Motion
    2. CID 7586 (MAC)
       1. Review Comment
       2. From the previous discussion it is believed (from the submission):

The BRC consideration ended as:

We, the people, believe:

1. The basic rate set is any of the rates supported by the AP
2. The AP’s operational rate is is any of the rates supported by the AP, and a superset of the basic rate set
3. The mandatory rates of the PHY have no effect on the selection of the basic rate set of the AP’s operational rate set
4. A non-AP STA can choose any of the rates it supports in its operational rate set
5. The mandatory rates of the PHY have no effect on the selection of the non-AP STA’s operational rate set
   * + 1. But this is inconsistent with p648.11 – see the note.
       2. Mandatory Rates are required to be included in the operational rates table.
       3. The rates that a STA wants to receive is given in Operational Rate set.
       4. Discussion on the rejection reason.
       5. Issue with the variety of ways to describe the rates that the STA will use, wants to use, and is required to use.
       6. The comment is trying to state something similar to the “We, the people” statement.
       7. When using the sets of rates, we need to decide what is mandatory and if it is mandatory, then it must be included, in the supported, but not necessarily in the operational rate.
       8. Proposed to use the reject reason, and make a separate motion.
       9. Proposed resolution: REJECT; The supported Data Rates Rx table specifically includes “mandatory rates”. The Operation Rate Set is the complete set of rates that the STA is capable of receiving and as such must also include the mandatory rates as per the dot11 Supported Data Rates Rx Table.
       10. A separate motion will be prepared.
     1. CID 7822 (MAC)
        1. Review Comment
        2. Review context at p1123.
        3. Changes to proposal was captured in r3
        4. Discussion on the proposed resolution
        5. Proposed Resolution: Revised: At P1123.60 Replace “The Block Ack Starting Sequence Control field is defined in 9.3.1.8 (BlockAckReq frame format).”With“The Starting Sequence Number subfield of the Block Ack Starting Sequence Control subfield (see Figure 9-27) contains the sequence number of the first or next (in the case of a renegotiation of a block ack agreement) MSDU to be sent under this block ack agreement. The Fragment Number subfield is set to 0.”
        6. No objection to the final resolution – Mark Ready for Motion
     2. CID 7789 (MAC)
        1. Review Comment
        2. It only matters when a STA wants to TX to determine if the Chanel is idle or not.
        3. Would like to have Mark HAMILTON present for (included in) this discussion.
   1. We ran out of time as it is now lunch time.
   2. **Recess** at 12:02pm – to return at top of hour (13:00).

1. **REVmc BRC Face to Face in Cambridge Monday, 25 April 2016, PM1 1-3:00pm**
   1. **Called to order** at 1:03pm by Dorothy STANLEY (HPE)
   2. **Attendance:** 
      1. In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Edward AU (Huawei);
      2. Called in during some part of the meeting:
   3. **Reminder of Patent Policy**
      1. No issues
   4. **CID 7509 (GEN)**
      1. Review Comment
      2. Discussion of Vendor OUI vs CID
      3. There are 3 locations of interest: P831.20, P834.35, 2002.8
      4. Discussion on how to describe the OUI or CID that is being put into the table.
      5. The row for the “Vendor OUI vs CID” in the table 9-130 should be done as there are not any “other” values not already defined.
      6. Add a sentence “When this field does not contain the value 00-0f-AC, it contains an OUI or CID value and this value determines the interpretation of the Type and field in a manner controlled by the owner of that OUI or CID.” This will need some word smything.
         1. It could be said that the interpretation could be owned by the owner of the OUI or CID.
         2. This should be added where the field is defined, and then repeat if we have multiple fields.
      7. Alternatively we could change “Vendor OUI or CID” “Other” changed to “Other OUI or CID” “Any”
      8. Proposed Resolution: REVISED (GEN: 2016-04-25 12:29:01Z) -: P831.20: Change “Vendor OUI or CID” to “Other OUI or CID” and change “Other” to “Any”

P834.35 : Change “Vendor OUI or CID” to “Other OUI or CID”

P2002.8: Change “Vendor OUI or CID” to “Other OUI or CID”

* + 1. No Objection - Mark Ready for Motion
  1. **Review doc 11-16/276r5** –Mark RISON (Samsung)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>
     2. CID 7419 (MAC) 11-16/273r6
        1. Review previous discussion to restart discussion
        2. The proposed changes are now consistent with the duplication of the description.
        3. Discussion on No-Ack vs Ack case on fragmentation.
        4. Discussion on the possibility that the text is wrong, and the version we are looking to adopt is wrong.
        5. If the NoAck behavior is wrong, we can look to fix in REVmd
        6. Proposed Resolution: Revised: Make the changes shown under “Proposed changes” for option 1 for CID 7419 in 11-16/276r6: <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>> which remove the triplication, keep duplication between the SAP subclause and the MLME subclause but align the wording (towards the latter).
        7. No objection – Mark Ready for Motion
     3. CID 7484 (MAC) 11-16/273r6
        1. Review Comment
        2. Review Changes
        3. Discussion of the changes needs to be done for each individual change.
        4. Discuss the change of the “—After transmitting” paragraph being split into a sub paragraph and the next paragraph being indented as it belongs to this paragraph.
        5. Discussion on the Recipient sending an ACK and being able to determine if it was sent by whom. If we delete “sent by the recipient” because Acks don’t have a TA, then is it clear enough that “valid response” includes “sent by the person who’s supposed to send it”.
        6. The use of “Immediate” gives an urgency that we should keep. No objection to not deleting “immediate”.
        7. There are 6 rules that are being changed.
        8. Discussion on if the “Valid response” needs to have a valid “TA” field.
        9. Proposed Resolution: Revised: Make the changes shown under “Proposed changes” for CID 7484 in 11-16/276r6: <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>>, which effect the requested changes.
        10. No objection – Mark Ready for Motion
     4. CID 7635 (MAC) 11-16/273r6
        1. Review Comment – note no Comment Group
        2. Review the February Minutes where this CID was rejected: REJECTED (MAC: 2016-02-24 15:13:10Z): The processing of probe responses and the timing of any such processing is implementation specific.
           1. The submission 11-16/278r2 proposed to accept it.
           2. It was pulled prior to the motion to accept the rejection in March.
        3. Discussion on the new changes in 11-16/273r6 to clarify the text.
        4. Proposed change: Revised: In 11.1.4.3.2 change step g) to:Process all probe responses received until the timer reaches MaxChannelTime, constructing BSSDescriptions corresponding to the probe responses that match the criteria specified in the MLME-SCAN.request primitive.In 11.1.4.3.3 change step h) identically.Change the last para of 11.1.4.3.2 to:When all channels in the ChannelList have been scanned, the MLME shall issue an MLME-SCAN.confirm primitive with the BSSDescriptionSet containing all the BSSDescriptions constructed during the scan.Add this para to the end of 11.1.4.3.3 too.
        5. No objection – Mark ready for motion
     5. CID 7393 (MAC) 11-16/273r6
        1. Review discussion
        2. Review the new primitive being added
        3. Need to account for error case, need to actually change the cited sentence in the comment.
        4. Proposed Resolution: REVISED; Make the changes shown under “Proposed changes” for CID 7393 in 11-16/276r6: <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>>, which effect the requested addition.
        5. No objection – Mark ready for Motion
  2. **Recess** at 3:30pm UK Time

1. **REVmc BRC Face to Face in Cambridge Monday, 25 April 2016, PM2, 3:30-6pm**
   1. **Called to order** at 3:31pm by the chair, Dorothy STANLEY (HPE).
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Edward AU (Huawei);

Called in during some part of the meeting: Assaf KASHER (Intel); Jinjing JIANG (Marvel); Mark HAMILTON (Ruckus)

* 1. **Reminder of Patent Policy**
     1. No items
  2. **Review Doc 11-16/541r1** Assaf KASHER (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0541-01-000m-sc-64-qam-response-to-editor-comments.docx>
     2. Review changes of 11-16/541 from R0 to R1
     3. The change bars in R1 are in reference to the D5.3 draft.
     4. Request changing of sentence on page 2 “The MCS parameter, enumerated type,” to “The MCS parameter which is an enumerated type”
     5. The duplicate reference to 20-18 seems confusing, so the “20-18” then “(see table 20-20 and 20-18)” delete the later quoted reference.
     6. Need to ensure that all fields are properly cited.
     7. The phrase “the subset of MCS” should be “the subset of MCSs”.
     8. There is a “rate” after “data” missing in two places.
     9. Discussion on p1053.39-49 may need different terminology when discussing the MCS enumeration and the MCS values.
     10. Will bring back on Wednesday for final review.
  3. **Review doc 11-16/303r2** Graham SMITH
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0303-02-000m-resolution-of-several-cids-for-d5.docx>
     2. CID 7789 (MAC)
        1. Need Mark HAMILTON to be involved in the discussion – defer for now.
     3. CID 7435 (MAC) 11-16/303r3
        1. Review comment
        2. See p629.40 for context.
        3. Discussion on if the PCP is part of the ESS or not? The PCP provides access to the medium not to the BSS.
        4. There does not seem any normative behavior when using the ESS or IBSS subfields, so they should be reserved.
           1. The MBSS sets the field to one, and should be included in the possible changes.
        5. How do we tell between an AP and a PCP when scanning? This question is still open and will need a better resolution.
        6. ACTION ITEM #1: Adrian – Send a query to Carlos CORDIERA on the question.
     4. CID 7085 (MAC)
        1. Open diagrams and Mark H to be involved.
     5. CID 7212 (MAC) 11-16/303r3
        1. Last discussed was during the session in Macau
           1. From the minutes 11-16/250r0:

1.10.3.1 Review comment

1.10.3.2 Discussion on the proposed changes and the location to apply the changes.

1.10.3.3 More discussion needed to research the “AP Quiet Mode” vs “Quiet Mode”.

1.10.3.4 More work is needed on this one.

* + - 1. Review Comment
      2. Review discussion in submission
      3. Issues with the rejection: The Standard says that only the DFS owner can issue the Quiet Elements. This would leave the IBSS in quiet mode, and as IBSS does not have an AP, the name should not have AP in the Name.
         1. Removing the “AP” from the name, it would solve half the comment.
      4. Need to review the AP Quiet Mode Field definition.
      5. Simply change the name “AP Quiet Mode” to “Quiet Mode” would be a good first step
      6. On p1062.50 it describes an STA talking to an AP if this is in an IBSS, there would be no AP.
      7. This field is only relative in the infrastructure case, then the name may not need to be changed, but the IBSS case is still an issue.
      8. This was added for the VHT amendment, and so we should check with the authors (Brian HART).
      9. ACTION ITEM #2 – CID 7212: Mark RISON is to contact Brian HART and get some more details on the design of this feature. How is this supposed to work with the IBSS case?
    1. CID 7541 (MAC)
       1. CID 7087 and 7088 have nearly the same issue,
       2. All 3 CIDs are in 11-16/228
    2. CID 7789 (MAC) 11-16/303r3
       1. Review the comment
       2. Review the relative diagrams
       3. Diagram 10-4
          1. Concern with the proposed new diagram as the diagram10-4 may be misleading to when there is more immediate access.
          2. Deleting everything to the left of “Busy Medium” as a start.
          3. Discussion on the changes to the diagram 10-4 was captured in R3.
          4. Why two AIFS[i]?

There are actually 4 different AIFS[i].

We are not going to make too many changes that are beyond the comment intent.

Changes were limited to what was more germane to the comment.

* + - 1. Diagram 10-10 discussion
         1. Change “Contention Window” to “Backoff Slots”
      2. Diagram 10-14 discussion
         1. Minimal changes proposed here
         2. In EDCA the Backoff counter needs to be zero to transmit at a slot edge. For DCF, there is a state machine, and when in an IDLE state when nothing is happening, and goes into a backoff state until the counter expires. So when you get an TX frame from the upper layers and are in the idle state then you can transmit immediately. This may be equivalent to the backoff counter is zero as you are probably going to idle state then.
         3. Review the text that describes the state and then the diagram should be used as a picture of the context, not the whole story. Not try to put in too much into the figure that tells too many stories.
         4. Discussion on the possible changes to the figure.

What are the conditions on the left of the initial “DIFS” box?

* + - 1. Discussion on the DCF and Medium access.
      2. The DIFS ensure you have accessed the CCA and have an idle channel for the DIFS duration at least.
      3. The initial TX can occur when the medium is free for DIFS and backoff timer is zero.
      4. Change initial bubble to “Access after DIFS under certain conditions”
    1. Proposed Resolution: Revised: Incorporate the changes under CID 7789 (MAC) in 11-16/303r3 < <https://mentor.ieee.org/802.11/dcn/16/11-16-0303-02-000m-resolution-of-several-cids-for-d5.docx> > which updates 3 diagrams.
    2. No objection – Mark Ready for Motion
  1. **Review doc: 11-16/290r3** Mark HAMILTON
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0290-03-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>
     2. CID 7792 (MAC) 11-16/290r3
        1. Review comment
        2. Review previous discussion
        3. Discussion on channel access vs PS-Poll, then what about the queuing of pending Frames in appropriate queue and then are transmitted in the appropriate time.
        4. QoS Frame is required in order to indicate it is an A-MSDU in this case.
        5. Discussion sending A-MSDU under PS-Poll.
        6. The STA uses EDCA because it is a QoS STA, so a note to act like a QoS STA is not needed.
        7. Need to go off and make it say Bufferable Unit – Note that you transmit a buffered BU when transmitting these.
        8. Use “Individually addressed bufferable BU”
        9. Will go back and work on the text changes.
     3. CID 7069 (MAC) 11-16/290r3
        1. Review Comment
        2. Review the context of where the target text would go.
        3. Move to p1645.20
        4. Proposed Resolution: REVISED. Move the two sentences starting “An incoming MSDU” and “If, however, all of the frame classifiers” to P1645L20, just before the sentence starting “See 5.1.1.3”.
        5. No objection – Mark ready for Motion
     4. CID 7553 (MAC) 11-16/290r3
        1. Review Comment
        2. Review Context and discussion
        3. Discussion on the two sentences being similar in the case of mesh PMKSA being deleted, so not needed in the 2nd sentence.
        4. ACTION ITEM #3: Dorothy to check with Dan H. as he wrote most of the mesh security sections.
        5. Proposed Resolution: Accepted
        6. No Objection – Mark Ready for Motion
     5. CID 7816 (MAC) 11-16/290r3
        1. Review comment
        2. Discussion on the deletion of “wired”. Changing it to “general-purpose” seemed to be more accurate.
        3. Proposed Resolution: Revised: Change the sentence to, “IEEE Std 802.11 is required to appear to higher layers [logical link control (LLC)] as a general-purpose IEEE 802 LAN.”
        4. No Objection – Mark Ready for Motion
     6. CID 7817 (MAC) 11-16/290r3
        1. Review Comment
        2. Review potential locations for the score-boarding block.
        3. Proposed Resolution: Accepted
  2. **Review Schedule** for Tuesday
     1. Report from Carlos CORDIERO
     2. CID 7435 (MAC)
        1. How to tell the difference from an AP and a PCP?
           1. There is a BSType field that tells the difference.
           2. So we probably do not need the “or PCP”.
           3. We do not need the note, but we do add “Otherwise the ESS and IBSS subfields are reserved.
           4. Proposed Resolution: Revised: At 655.31 Add at end of sentence “Otherwise the ESS and IBSS subfields are reserved.”
           5. No objection – Mark Ready for Motion
  3. **Recess** at 6:00pm UK time.

1. **REVmc BRC Face to Face in Cambridge Tuesday 26 April 2016, AM1, 10am to 12:00 UK**
   1. **Called to order** at 10:05am by Dorothy STANLEY (HPE)
   2. **Attendance**:
      1. In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);
      2. Called in during some part of the meeting:
   3. **Review patent Policy**
      1. No Issues
   4. **Review Agenda**: - doc 11-16/543r2
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-02-000m-agenda-brc-cambridge-april-2016.docx>
      2. Add Brian Hart submission to PM2
      3. Edward 11-16/501r2 is the updated submission for reviewing Motion MAC-BQ pulled.
      4. No further changes or objection to the displayed agenda
   5. **Review doc 11-16/298r0** Dorothy STANLEY (HPE)
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0298-00-000m-ds-assigned-cids-march-2016.docx>
      2. CID 7346 (MAC) 11-16/298r1
         1. Review Comment
         2. Review proposed changes.
         3. Change the cited text as indicated below. This change generalizes the description and updates reference language.

“The RSNE includes cipher suite, AKM suite, PMKID and RSN capabilities information required to establish an RSNA. . The format of the RSNE is defined in Figure 9-254 (RSNE format).”

* + - 1. Add suite after AKM, and change includes to defined in…other changes were captured in r1.
      2. Proposed change: Revised; incorporate the changes for CID 7346 in 11-16/298r1 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0298-01-000m-ds-assigned-cids-march-2016.docx>>. This change generalizes the description and updates reference language.
      3. No Objection – Mark Ready for Motion
    1. CID 7105 (MAC) 11-16/298r1
       1. Review Comment
       2. Discussion on keeping or deleting the NOTE.
       3. Commenter was ok with proposed change.
       4. Proposed resolution: RevisedAt 1903.16, insert the following NOTE:

“NOTE — Because a VHT STA is also an HT STA, the elimination of TKIP also applies to VHT STAs.”

And

At 1972.65 (the cited location), delete the cited note.

At 1975.19, delete Note 2 “NOTE 2—Because a VHT STA is also an HT STA, the elimination of TKIP also applies to VHT STAs.”

At 1969.45, delete Note 1 “NOTE 1—Because a VHT STA is also an HT STA, the elimination of TKIP also applies to VHT STAs.”

These changes move the cited sentence (and 2 other instances) to one more general location.

* + - 1. No Objection – Mark Ready for Motion
    1. CID 7649 (GEN)
       1. Review comment
       2. Proposed Resolution: ACCEPTED (GEN: 2016-04-26 09:26:38Z)
       3. No objection – Mark Ready for Motion
    2. CID 7530 (GEN) 11-16/298r1
       1. Review Comment
       2. Proposed Resolution: REVISED (GEN: 2016-04-26 09:28:52Z) At 2130.04, change from “mesh PMK” to “PMK”.

Note to commenter:

2130.04 refers to the “key confirmation” using the mesh PMK, which is correct, as key confirmation uses a key, not a security association (mesh PMKSA) as suggested by the commenter’s proposed resolution.

In other mesh security descriptions, for example in the mesh PMKSA definition at 1962.16, “PMK” is used, rather than “mesh PMK”. Also see for example 2129.55, 2137.60-63. The change makes the cited location consistent with other usage in the mesh security section.

* + - 1. No Objection – Mark Ready for Motion
    1. CID 7510 (GEN) 11-16/298r1
       1. Review comment
       2. Review proposed change
       3. We may need to create a new group and remove the deprecated variable with the new RSN Group and RSN Base and RSN Compliance statement.
       4. 3326.07 is the RSN Base which includes the now proposed deprecated variable.
       5. Discussion on why this needed to be marked deprecated.
       6. The compliance group needs to be updated, but we will not do that now.
       7. Proposed Resolution: REVISED (GEN: 2016-04-26 09:31:07Z) At 2938.58, change from "STATUS current" to "STATUS deprecated"
       8. This change implements the commenter’s proposed resolution.
       9. No objection – Mark Ready for Motion
    2. CID 7350 (GEN) 11-16/298r1
       1. Review Comment
       2. Discussion of the Key RSC field usage.
       3. Question on why we are not making changes to the TKIP area despite the deprecation status.
       4. Mark RISON asked that his objection to not changing deprecated material be minuted.
       5. Proposed resolution: REVISED (GEN: 2016-04-26 09:39:02Z) At 1002.10 and 2018.45 change "[The] Key RSC denotes the last frame sequence number sent using the GTK" to "[The] Key RSC denotes the last TSC or PN sent using the GTK"

At 2011.52 change "Key RSC = For PTK generation, starting sequence number" to "Key RSC = For PTK generation, starting TSC or PN"

At 2019.32 change "Key RSC = last transmit sequence number for the GTK" to "Key RSC = last TSC or PN for the GTK"

At 2021.29 change " the last sequence number used with the GTK (RSC)" to " the last TSC or PN used with the GTK (RSC)"

These changes implement the commenter’s proposed changes. No change is made at 1930.42 and 1931.47 as these locations describe TKIP operation, and TKIP is deprecated.

* + - 1. No objection – Mark Ready for Motion
    1. CID 7511 (MAC) 11-16/298r1
       1. Review Comment
       2. Typo identified
       3. Proposed Resolution: Accept
       4. No objection – Mark Ready for Motion
    2. CID 7739 (GEN) 11-16/298r1
       1. Review comment
       2. Proposed Resolution: REJECTED (GEN: 2016-04-26 09:47:17Z) The current formulation is accurate and has been implemented by multiple independent implementations.
       3. Discussion on the use of Q, and reiterate request to change from Q.
       4. The change would be replace Q with “Length-128”
       5. Straw Poll:

1. Reject Comment
2. Make Change as
3. Abstain
   * + 1. Results: a) 2 b) 1 c) 2
       2. Continue with the rejected reason – Mark ready for Motion
   1. **Review doc 11-16/0276r5** Mark RISON (Samsung)
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>
      2. CID 7393 (MAC) 11-16/276r5
         1. Review where we left off yesterday.
         2. Resolution from yesterday is fine.
         3. No change to the resolution recorded for Monday.
      3. CID 7255 (MAC) 11-16/276r5
         1. Review Comment
         2. Review discussion
         3. Proposed Resolution: Accept
         4. No Objection – Mark Ready for Motion
      4. Operational Rate Set and Basic Rate Set Discussion
         1. CIDs 7278, 7280, 7281, 7282, 7283, 7284, 7285, 7286, 7287, 7288, 7289, 7290, 7292.
         2. Review the proposed changes
         3. Discussion on the differences of supported rates vs operational rates.
         4. From the submission Discussion:

Whereas:

* dot11SupportedDataRatesRxTable and dot11SupportedDataRatesTxTable are the mechanism by which pre-HT rate capabilities are indicated by the device to the SME. It makes no sense for pre-HT rates not indicated as supported by the device to be specified for MLME-JOIN/START.request etc.
* There are similar tables for HT and VHT support
* The over-the-air signaling of support for pre-HT rates is overloaded with signaling of “membership selectors”. By definition these use values that do not correspond to possible pre-HT rates. This is achieved because the highest possible pre-HT rate, which is now fixed for eternity, is 54 Mbps, which is signaled as 108, allowing values between 109 and 127 to be used as membership selectors
* There are two rate sets: the operational rate set, which indicates the rates a STA can receive, and the basic rate set, which indicates the rates all STAs in the BSS can transmit and receive
* The membership selectors currently defined (note TGak is defining new ones), namely HT and VHT, only make sense as “basic”, i.e. all STAs in the BSS must support the feature (so any pre-HT STA cannot join the BSS), because “operational” support is indicated by other elements, namely HT and VHT Capability elements. This pattern should probably be formalized, since it makes little sense to hide an “operational” feature in the Supported Rates and Membership Selector element rather than having a dedicated element or capabilities bit for this
* DMG is weird so should be kept isolated behind a cordon sanitaire (it already is in some places)
* At the SAP level we should not be confusing matters with the slightly obscure way in which the supported/operational rates/membership selectors are encoded over the air
  + - 1. Concern expressed in the late timing on proposing this set of proposed changes.
      2. Remove proposed change for BSSMembershipSelection comment column indicating joining for communication, rather it is a mechanism to restrict which STAs are allowed to join. Change to the Set of Features that all STA must support in order to join.
      3. Need to check why BSSBasicRateSet “Element” was used, see 149.47.
      4. Join request has limited value, and for VHT, it is not used.
      5. For the BSSBasicRate Set Row and BSSMembershipSelectorSet on p173.47 are not needed.
      6. Also the “SupportedRatesOperationalRateSet” may not be needed either.
      7. Discussion on the use of Operational rate set in Join and Beacon processes. Discussion of the use of the Membership selector. Discuss on the transition management and if there is an issue with the existing text. A Scan seems to be required prior to Join Request.
      8. More work will be needed in R6.
      9. After discussion we agree more changes and discussion will be done.
      10. ACTION ITEM #4: Mark to check with Mark HAMILTON on this set of proposed changes to avoid having to go over the in-depth detail again.
    1. CID 7213 (GEN) 11-16/276r5
       1. Review Comment
       2. Proposed Resolution: REVISED (GEN: 2016-04-26 10:59:26Z) Change “MU-capable” to “MU beamformee capable” at 78.22, 1058.19, 2574.47.
       3. No objection – Mark Ready for Motion
  1. **Recess** at 12:00pm

1. REV **REVmc BRC Face to Face in Cambridge Tuesday, 26 April 2016, PM1 1:00pm to 3:00pm**
   1. **Called to order** by Dorothy STANLEY (HPE) at 1:02pm
   2. **Thank you Mark Rison and Samsung for Hosting and providing lunch again today**.
   3. **Attendance**:
      1. In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);
      2. Called in during some part of the meeting:
   4. **Review Patent Policy**
      1. No Issues noted.
   5. **Review Agenda** for Tuesday PM1 Slot: 11-16/543r2
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-02-000m-agenda-brc-cambridge-april-2016.docx>
      2. Review Open CID list and corresponding Documents
      3. April 26 PM1 1:00-3:00pm11-16-0303 – Graham Smith (110 mins)11-16-228, - CID 7789, 7087, 7088, 754111-16-385, - Covered by Mark Rison document 276 primitive changes (7278 et al)11-16-304, - Covered by Mark Rison document 276 primitive changes (7278 et al)11-16-237, Done, some transferred to Mark Rison11-16-221, - CID 7086, discuss Thursday11-16-278 (Graham) – 7431MAC BN pulled – MGR, 7550 – MGR, 7589-MGR, 7592, 7593, – MAC-BN pulled – MGR, 7640 (5208,2129, 11-14-57r5), 7786, 7772, 7769, 7654, – open,
      4. Will review the open CIDs in Graham’s Document.
   6. **Review Doc 11-16/ 278r3** – Graham SMITH
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0278-03-000m-resolutions-for-cids-assigned-to-graham-d5.docx>
      2. CID 7640 (MAC) 11-16/278r3
         1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0278-03-000m-resolutions-for-cids-assigned-to-graham-d5.docx>
         2. Review comment
         3. Review discussion
         4. Discussion on the Probe response
         5. Proposed Resolution: Accept
         6. No Objection – Mark Ready for Motion
      3. CID 7654 (MAC) 11-16/278r4
         1. Review Comment
         2. Review proposed change and changes were captured in r4.
         3. Proposed Resolution: Revised: Incorporate the changes for CID 7654 in doc 11-16/278r4 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0278-04-000m-resolutions-for-cids-assigned-to-graham-d5.docx> > which clarifies the frame exchange requirements.
         4. No objection – Mark Ready for Motion
      4. CID 7769 (MAC) 11-16/278r4
         1. Review Comment
         2. Review discussion
         3. See p3462 in d5.3 (3379 D5.0) – table E-1 for context.
         4. After discussion on the channel spacing, proposed resolution was prepared.
         5. Proposed Resolution: Revised, incorporate the changes for CID 7769 in 11-16/278r4 < <https://mentor.ieee.org/802.11/dcn/16/11-16-0278-04-000m-resolutions-for-cids-assigned-to-graham-d5.docx> > which addresses the commenters concern.
         6. No Objection – Mark Ready for Motion
      5. CID 7772 (MAC) 11-16/278r3
         1. Review Comment
         2. Review discussion
         3. P1627 for context
         4. Discussion on the states, agreements and allocations that are affected by the ressociation procedure.
         5. Split this comment out of the document to a separate submission and look to add description of the non-AP STAs behavior and describe what we think should be put in for the AP reactions. The concept is that we define the STA and the AP then reacts to what the STA defined behavior prescribes.
         6. ACTION ITEM #5: Graham to prepare the separate submission and recirculate on the reflector for later discussion.
      6. CID 7786 (MAC) 11-16/278r4
         1. Review comment
         2. Review discussion and email exchange
         3. Proposed Resolution: REVISEDAdd at end of subclause 11.11.9.1, P1692.41“NOTE - To identify the BSS bandwidth, the Beacon request might include a Request subelement listing the element IDs of the HT Operation and VHT Operation elements. The Beacon report would then include the requested elements, which contain fields defining the BSS bandwidth.”
         4. No objection Mark Ready for Motion
   7. 13 CIDs for Mark RISON to be scheduled for the May 6th Telecon
   8. Doc 11-16/228 needs to be discussed on the telecom
      1. We have discussed it before, but we need another review time on it.
      2. ACTION ITEM #6: Send note to reflector requesting review and we will discuss on the May 6th Telecon.
   9. **Recessed** at 2:58
2. **REVmc BRC Face to Face in Cambridge Tuesday, 26 April 2016, PM1 15:30 to 18:00 UK**
   1. Ca**lled to order** at 3:33pm by the chair, Dorothy STANLEY (HPE)
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Menzo Wentink (Qualcomm); Jinjing Jiang (Marvell)

* 1. **Patent Policy** Reminder
     1. No issues
  2. **Agenda Reviewed** – 11-543r3
  3. **Review doc 11-16/412r2** from Brian HART(Cisco) – presented by Dorothy STANLEY
     1. **<URL>**
     2. CID 7523 (MAC)
        1. Review Comment
        2. Review proposed change
        3. Concern with the change as it may cause existing STA non-compliant.
        4. Concern that the AP has to make a transformation that it does not have to make now.
        5. There is more work needed as there is some concern with the proposed change, and unsure that the primary channel is even indicated here.
        6. ACTION ITEM #7: Mark RISON to follow-up with Brian HART.
  4. **GEN-FLL – Pulled CIDs**
     1. CID 7296 (GEN) 11-16/276r5
        1. Assigned to Mark RISON when we pulled it in Florida.
        2. See Doc 11-16/276r5
        3. Also CID 7295 (EDITOR) and CID 7294 (GEN)
        4. Discussion on the determination of the proposed changes.
        5. aRxPHYStartDelay values are thought to have an error in the table.
        6. Discussion on using the numbers proposed.
        7. Are the old implementations going to be non-compliant with new devices?
           1. Discussion on the potential and what could be detected.
        8. Proposed Resolution CID 7294 (GEN): ACCEPTED (GEN: 2016-04-26 15:10:23Z)
        9. No objection Mark Ready for Motion
        10. Proposed Resolution CID 7295 (Editor): ACCEPTED **(note: this was REJECTED in motion #195)** Note to the editor: the subclause indicated by the commenter is wrong (should be 18.5.4). The page and line are correct.
        11. The table has the “expected” packet type that being received to determine the proper value to wait.
        12. The Service field in the HT case was discussed.
        13. The Service field in the VHT, the PHYRX.indicate cannot be done until the CRC check is done in the MU case.
        14. IF we do make these changes, we need to include a note to explain how we got the numbers from the figures.
        15. Move the VHT and TVHT entries in the submission table to have a text description of the new rows.
        16. Update the description of the editing table.
        17. Proposed resolution CID 7296 (GEN): REVISED (GEN: 2016-04-26 15:33:07Z) Incorporate the changes for CID 7296 in 11-16/276r6 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>> which correct the aPreambleLength, aPHYHeaderLength and aRxPHYStartDelay for various PHYs including HT.

Note to the commenter: the times are to the end of HT-SIG, not to the start of the Data field, so are 28/24 us for MF/GF, not 36/28 us.

* + - 1. No objection – Mark All 3 CIDs ready for Motion
    1. CID 7526 (GEN)
       1. Review comment and the previous resolution.
       2. 11-16/291r1: < <https://mentor.ieee.org/802.11/dcn/16/11-16-0291-01-000m-miscellaneous-tgmc-cid-resolutions.docx> >

From the previous proposed resolution: Revise:

On Page 2330, Line 7:

Change “A STA that has a 20 MHz operating channel

width transmits a non-HT format packet according to Clause 17 (Orthogonal

frequency division multiplexing (OFDM) PHY specification) or Clause 18

(Extended Rate PHY (ERP) specification) operation.”

To:

“A STA that has a 20 MHz operating channel

width transmits a non-HT packet

of type ERP-DSSS, ERP-CCK, ERP-OFDM, or OFDM.”

Change the sentence on page 2329.54 as follows:

CH\_OFF\_40: *40 MHz HT format*—~~A PPDU of this format occupies a 40 MHz~~

~~channel to transmit an HT-mixed or HT-greenfield format packet of 40 MHz~~

~~bandwidth with one to four spatial streams.~~ The STA transmits an HT-mixed or HT-greenfield

format packet of 40 MHz bandwidth with one to four spatial streams.

* + - 1. Discussion on the proper correction of the wording and to use the correct abbreviations.
      2. Discussion on the proper pattern to make this consistent.
      3. Determine to not do a wholesale change, but rather focus on the comment and make the suggested change in a minimal manner.
      4. Proposed Resolution: Revised: On Page 2330, Line 7: Change “A STA that has a 20 MHz operating channel width transmits a non-HT format packet according to Clause 17 (Orthogonal frequency division multiplexing (OFDM) PHY specification) or Clause 18 (Extended Rate PHY (ERP) specification) operation.”To:“The STA has a 20 MHz operating channel width and transmits a non-HT ERP-DSSS, ERP-CCK, ERP-OFDM, or OFDM format PPDU.”At 2329.39, change ”CH\_OFF\_20: 20 MHz HT format—A STA that has a 20 MHz operating channel width transmits an HT-mixed or HT-greenfield format packet of 20 MHz bandwidth with one to four spatial streams.” To”CH\_OFF\_20: 20 MHz HT format—The STA has a 20 MHz operating channel width and transmits an HT-mixed or HT-greenfield format PPDU of 20 MHz bandwidth with one to four spatial streams.”

Change the sentence on page 2329.54 as follows:”CH\_OFF\_40: 40 MHz HT format—A PPDU of this format occupies a 40 MHz channel to transmit an HT-mixed or HT-greenfield format packet of 40 MHz bandwidth with one to four spatial streams.”

To”CH\_OFF\_40: 40 MHz HT format—The STA transmits an HT-mixed or HT-greenfield format PPDU of 40 MHz bandwidth with one to four spatial streams.”

* + - 1. No objection Mark Ready for Motion
  1. **Motion MAC-BP Pulled CIDs**
     1. CID 7590 (MAC)
        1. Proceed with the previous resolution as proposed.
        2. Proposed Resolution: REVISED (MAC: 2016-03-15 06:55:00Z): Make the changes as shown in 11-16/374r1 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0374-01-000m-sb1-proposed-resolutions-for-some-mac-comments.doc>) for CID 7590. These changes clarify the fields as reserved for the initiating STA, and sometimes reserved for the responding STA.
        3. No Objection – Mark Ready for Motion
     2. CID 7749 (MAC)
        1. Motion #203 already resolves this CID
     3. CID 7774 (MAC) and CID 7776 (MAC)
        1. Previous Proposed Resolution CID 7774: REJECTED (MAC: 2016-03-15 09:26:12Z): The cited text allows elements that are not listed in orders 1-9 to be included.
        2. Previous Proposed Resolution CID 7776: REJECTED (MAC: 2016-03-15 09:31:40Z): The cited text allows elements that are not listed in orders 1-9 to be included. The description refers to 11.33 which lists the elements that can be present.
        3. CID 7590 (MAC) had the proposed resolution: REVISED (MAC: 2016-03-15 06:55:00Z): Make the changes as shown in 11-16/374r1 (https://mentor.ieee.org/802.11/dcn/16/11-16-0374-01-000m-sb1-proposed-resolutions-for-some-mac-comments.doc) for CID 7590. These changes clarify the fields as reserved for the initiating STA, and sometimes reserved for the responding STA.
        4. Utilize Doc 11-16/276r6
        5. Review discussion on these CIDs and the proposed new changes.
        6. Concern with the last sentence

“Change the cell at the referenced location to “Zero or more additional elements are present, as defined in 11.33. These elements are not present more than once in the frame.”.”

* + - 1. Review the FST Setup Request frame Action field Format.
      2. Note in the MLME definition was a reference to the FST Setup where it is not defined.
      3. P1851.24 has list of elements used in the DMG case.
         1. We can refer to 11.33.1 for the list of elements
      4. Proposed Resolution CID 7774 (MAC) and CID 7776 (MAC) : Revised; Change the cell at the referenced location to “Zero or more additional elements are present, as defined in 11.33.1. Each of these elements is not present more than once in the frame.”
      5. No objection - Mark Ready for Motion
  1. **Pulled MAC-BO CIDs**
     1. CID 7220 (MAC)
        1. Adhoc Comments: MAC: 2016-03-17 06:41:02Z: Pulled from MAC-BO. Request for more time to confirm the proposed changes are not in conflict with any other existing text.
        2. Prior Resolution: REVISED (MAC: 2016-02-25 19:33:41Z): Incorporate the text changes in 11-16/0292r1 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0292-01-000m-sb1-ecclesine-resolutions.docx>). This clarifies the behavior of Channel Switch Mode equal to 1 in the various BSS types.
        3. Action ITEM #8: Adrian to follow-up on March Macau Action Item #5 to review this CID.
  2. **Pulled MAC-BQ CIDs** (from motion #203)
     1. CID 7672 (MAC) – need more time – assign to May 6th Telecon
     2. CID 7767 (EDITOR) – 11-16/501r3 – assign to Wednesday
     3. CID 7437 (EDITOR) – Motion 203 already resolved.
     4. CID 7438 (EDITOR) Motion 203 already resolved
     5. CID 7317 (MAC) –
        1. Previously Proposed resolution: REVISED (MAC: 2016-04-07 10:11:01Z): Make changes as shown in 11-16/290r2 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-02-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>), for CID 7317. These changes effect the commenter’s intent.
        2. Concern with the imposed requirement
        3. How can an AP or PCP know the resetting of the TSF timer independently?
           1. Change the wording to say it is not synchronize the timers.
        4. This was worked on by Graham SMITH and Mark HAMILTON
        5. Will assign to Thursday to work on it.
     6. CID 7324 (MAC)
        1. Previously Proposed Resolution: REVISED (MAC: 2016-04-07 10:11:51Z): Make changes as shown in 11-16/290r2 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-02-000m-resolutions-for-some-comments-on-11mc-d5-0.docx> ), for CID 7324. These changes effect the commenter’s intent.
        2. The concern with the extended capabilities bit definition.
        3. Concern with the UTF-8 usage of the SSID name fields.
        4. Discuss on the method of getting SSIDs and how they are resent in Beacon reports for example.
        5. Two contexts of the UTF-8 fields. When the AP initially states what its SSID is, and then other is when it is getting SSIDs from other APs. Is there sufficient information to decode the SSID?
        6. The octet stream is really a presentation issue.
        7. The problem is that you are not guaranteed to have a UTF-8 SSID in all cases. And there is not enough info to indicate that.
        8. Propose to just reject the CID – the changed text seems to be worse than the original.
        9. Possible new sentence to add after the cited sentence: The SSID is interpreted as UTF-08 nor not according to Extended Capabilities Element transmitted by the AP that originally transmits the SSID element.
        10. This issue is seen in the Neighbor report.
        11. If we delete the cited sentence, we allow the other locations to indicate the type of the encoding.
        12. Another possible replacement: The encoding of the SSID subfield is determined by the UTF-8 SSID subfield of the Extended Capabilities element (see Table 9-134—Extended Capabilities field).
        13. We ran out of time --
  3. **Recap** – we have more Pulled CIDs to review.
     1. We should be able to go over some more of the pulled CIDs tomorrow.
     2. Move the remaining Pulled CIDs to the Wednesday PM1.
  4. **Recess** at 6:05pm

1. **REVmc BRC Face to Face in Cambridge Wednesday, 27 April 2016, AM1, 10:00-12:00am UK**
   1. **Called to order** at 10:02am UK Time by the chair, Dorothy STANLEY (HPE)
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Menzo WENTINK (Qualcomm)

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Draft Agenda** for today 11-16/543r3
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-03-000m-agenda-brc-cambridge-april-2016.docx>
     2. **Wednesday April 27 AM1 10:00-12:00**11-16-0501 – Edward Au – 30 mins CID 7767, 7556, 7698  
        11-16-0555- Edward Au – 7633, 7134, 7135  
        11-16-0276 - Mark Rison (90 mins)
     3. **April 27 PM1 1:00-3:00pm**11-16-various – Graham Smith (90 mins)  
        Adrian CIDs: 7220  
        11-16-0554 Menzo  
        Gen-Macau Pulled - CIDs 7672(MAY 6), 7767(with 501 on Weds), 7437(already motioned 203), 7438(already motioned 203), 7317(Thursday), 7324(Thursday), 7378, 7658, 7648, 7494, 7539, 7702, and 7701.  
        Motion MAC –BM pulled – 7086  
        GEN-Review CIDs 7334, 7483, 7298
     4. **April 27 PM2 3:30-5:30pm:**Motions (30 minutes)  
        11-15-1184 – Dan Harkins (15 mins)  
        11-15-447r2 -   
        11-16-0384 – Dan Harkins, CIDs 7533, 7536, and 7537  
        11-16-tbd Matthew Fischer CIDs
     5. **No objection to the agenda plan for today.**
  3. **Review Doc 11-16/501r3** Edward AU (Huawei)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0501-03-000m-resolution-for-some-pics-and-mib-comments.docx>
     2. CID 7556 (GEN)
        1. Review comment
        2. Discussion on why there is a distinction between DMG STA and non-DMG STAs.
        3. There is 3 instances of use of the CFnotDMGSTA.
        4. A STA has only one PHY,
        5. Proposed resolution: REVISED. Replace “CFDMGSTA” with “CFDMG”.Replace “CFnotDMGSTA” with “not CFDMG”.Delete the two rows containing O.5 in page 2685.
        6. No objection - Mark Ready for Motion
     3. CID 7767 (EDITOR)
        1. Review Comment
        2. Proposed Resolution: Revised (page and line numbers from D5.2)[1] At line 3437.28: change “when object dot11PHYType has the value of ht” to “when object dot11PHYType is ht”.[2] At line 3437.41: change “when object dot11PHYType has the value of vht” to “when object dot11PHYType is vht”.[3] At line 3437.56: change “when object dot11PHYType has the value of tvht” to “when object dot11PHYType is tvht”.[4] At line 3437.15: change “when object dot11PHYType is ERP” with “when object dot11PHYType is erp”.[5] At line 3439.15: change “when the object dot11PHYType has the value of DMG” with “when object dot11PHYType is dmg”.
        3. No objection – Mark Ready for Motion
     4. CID 7698 (EDITOR)
        1. Review comment
        2. Discussion on possible alternatives
        3. More work to do, will bring back on May 6th Telecon.
  4. **Review Doc 11-16/0555r0** Edward AU (Huawei)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0555-00-000m-resolution-for-miscellaneous-comments-in-sb1.docx>
     2. CID 7633 (MAC)
        1. Review comment
        2. Discussion on if the “with a valid FCS” is necessary or not.
        3. All 5 instances can be removed,
        4. Keep the one in 9.2.2 (p564.7 – D5.0)
        5. The last instance of “with a valid FCS” needs some more editing.
        6. Proposed Resolution: RevisedAt lines 824.51 and 3188.53 in D5.3, delete “with a valid FCS” (total four instances).At line 1593.38 in D5.3, replace “with a valid FCS and BSSID or SSID” with “with a valid BSSID or SSID”.
        7. No Objection – Mark Ready for Motion
     3. CID 7134 (GEN) 11-16/555r1
        1. Similar to CID 7404.
        2. Use same resolution:
        3. Proposed resolution REVISED (GEN: 2016-04-27 09:42:04Z) Incorporate the changes for CID 7404 in doc 11-16/291r1 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0291-01-000m-miscellaneous-tgmc-cid-resolutions.docx>>, changing "21-7" to "21-2". This makes the effective change, but by making changes in 19.2.5 and 21.2.5.2.
     4. CID 7135 (GEN) 11-16/555r1
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2016-04-27 09:45:29Z) For line 2506.13: change "less than" to "greater than" in the inequality on this line.

For lines 2330.43 and 2504.3: incorporate the changes for CID 7404 in doc 11-16/291r1 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0291-01-000m-miscellaneous-tgmc-cid-resolutions.docx>>, changing "21-7" to "21-2". This makes the effective change, but by making changes in 19.2.5 and 21.2.5.2.

* + - 1. No objection – Mark Ready for Motion
  1. **Review doc 11-16/276r5** Mark RISON (Samsung)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>
     2. CID 7208 (MAC) 11-16/276r6
        1. Review comment
        2. Review proposed changes
        3. Review the change to the diagram in d5.3
        4. Move the MLME-FINETIMINGMSMT.indicatino line down to after T3.
        5. Proposed resolution: Revised; Make the changes shown under “Proposed changes” for CID 7208 in 11-16/276r6 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>>, which effect the requested changes.
        6. No objection – Mark Ready for Motion
     3. CID 7320 (MAC) 11-16/276r6
        1. Review comment
        2. Discussion on UTF-8 string and the formats and termination
        3. Review each UTF-8 instance
        4. Proposed Resolution: Accepted
        5. No objection – Mark Ready for Motion
     4. CID 7499 (MAC) 11-16/276r6
        1. Review comment
        2. Discussion on SMPS process
        3. Review Parameters for VHT for 8NSS
        4. Proposed Resolution: Revised; at p549.23 delete “The length of the field is 8 bits. A 1 in bit position n indicates that the receive chain numbered n is used. At most 4 bits out of 8 may be set to 1.”
        5. No objection - Mark Ready for Motion
     5. CID7532 (MAC) 11-16/276r6
        1. Review comment
        2. Discussion on the use of features that are added for VHT and now wanting to get an HT STA using the VHT features.
        3. Discussion on if the change would be market relevant.
        4. Proposed Resolution: ACCEPTED but do as separate motion. Note to the commenter: “NOTE 2—An AP cannot change the maximum number of spatial streams it is able to receive from HT STAs that are not operating mode notification capable.” on p. 1881 suggests that some HT STAs can be OMN-capable
        5. Mark Ready for motion, but make it a separate motion
     6. CID 7549 (MAC) 11-16/276r6
        1. Review comment
        2. Proposed change would be to change the format to be an action field format
        3. This would be similar to the other Action field Format description.
        4. Need to change the table header/title as well.
        5. Proposed Resolution: REVISED At 1145.10 change“The TDLS Discovery Response frame contains the information shown in Table 9-312 (Information for TDLS Discovery Response frame).Table 9-312—Information for TDLS Discovery Response frame”To“The format of the TDLS Discovery Response Action field is shown in Table 9-312.Table 9-312—TDLS Discovery Response Action field format“
        6. No objection – Mark ready for Motion
     7. CID 7746 (MAC) 11-16/276r6
        1. Review comment
        2. Discussion on the need for listing the CCA.
           1. Need to add DMG - 20.4.4.2.2
           2. Need to add for DMG 20.6.4.2.2
           3. There is separate section for the DMG CCA
           4. VHT – 21.18.5 CCA
           5. TVHT – 22.3.18.6
        3. Proposed Resolution: REVISED Change “see 15.4.6.5 (CCA), 16.3.8.5 (CCA), 17.3.10.6 (CCA requirements), 18.4.6 (CCA performance) and 19.3.19.5 (CCA sensitivity)” to “see 15.4.6.5 (CCA), 16.3.8.5 (CCA), 17.3.10.6 (CCA requirements), 18.4.6 (CCA performance), 19.3.19.5 (CCA sensitivity), 20.4.4.2.2, 20.6.4.2.2, 21.3.18.5 and 22.3.18.6”
        4. No objection – Mark Ready for Motion
     8. CID 7795 (MAC) 11-16/276r6
        1. Review Comment
        2. This is a “should” change
        3. Proposed Resolution: Revised; Add "A STA should support the concurrent reception of fragments of at least one MSDU per access category.  An AP should support the concurrent reception of at least on MSDU per access category per associated STA." after the text cited in the comment.
        4. No objection – Mark Ready for Motion
     9. CID 7608 (MAC)
        1. Review comment and the history of the comment.
        2. Still not ready for presentation.
  2. **Pulled CIDs – Motion MAC-BQ**
     1. CID 7378 (MAC)
        1. Previous Resolution: REVISED (MAC: 2016-04-07 10:12:35Z): Change both occurrences of "PMK or PSK key identifiers" to "PMK identifiers" and "PMK or PSK key identifier" to "PMK identifier" (P126.47 and P126.49).
        2. Discussion
        3. Update the resolution to delete “both occurrences of”
        4. Updated Resolution: REVISED; "PMK or PSK key identifiers" to "PMK identifiers" and "PMK or PSK key identifier" to "PMK identifier" (P126.47 and P126.49). This is the change requested by the commenter.
        5. No objection – Mark Ready for Motion
     2. CID 7658 (MAC)
        1. Previous Resolution: REJECTED (MAC: 2016-04-07 10:14:22Z): The commenter did not provide sufficient evidence that this particular MIB attribute needs to be included in the list in 4.3.13. That is, just because the attribute in not in this list, a missing behavioral requirement has not be identified.
        2. The MIB variable does not have the TVHT specifics.
        3. Assign to Edward to review if the MIB variables exist.
        4. Similar to CID 7698
  3. Recess at 12:01 pm

1. **REVmc BRC Face to Face in Cambridge Wednesday, 27 April 2016, PM1, 13:00-15:00 UK**
   1. **Called to order** at 1:04pm by the chair Dorothy STANLEY (HPE)
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Menzo WENTINK (Qualcomm); Jinjing Jiang (Marvell)

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Agenda**
     1. **April 27 PM1 1:00-3:00pm**11-16-various – Graham Smith (60 mins)  
        Adrian CIDs: 7220  
        11-16-0554 Menzo  
        Gen-Macau Pulled - CIDs 7672(MAY 6), 7767(with 501 on Weds), 7437(already motioned 203), 7438(already motioned 203), 7317(Thursday), 7324(Thursday), 7648, 7494, 7539, 7702, and 7701.  
        Motion MAC –BM pulled – 7086  
        GEN-Review CIDs 7334, 7483, 7298
  3. **Review doc 11-16/268r0** – Graham SMITH (SR Technologies)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0268-00-000m-resolution-for-cid-7090-d5.docx>
     2. CID 7090 (MAC)
        1. Related to CID 5144 (from previous Ballot)
        2. Review comment and the context
        3. Discussion on TXoP, RAV and NAV timers
        4. More time to be scheduled on Thursday AM
  4. **Review Doc 11-16/221r2** – Graham SMITH (SR Technologies)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0221-02-000m-resolution-for-cid-7086-dcf.docx>
     2. CID 7086 (MAC) 11-16/221r2
        1. Review comment
        2. Discussion on wotsit
        3. Discussion on backoff timer vs backoff time.
        4. A revision will need to be posted and CID marked ready for motion
        5. Proposed Resolution: Revised; At P1289.40Replace:“In general, a STA may transmit a pending MPDU when it is operating under the DCF access method, either in the absence of a PC, or in the CP of the PCF access method, when the STA determines that the medium is idle for greater than or equal to a DIFS, or an EIFS if the immediately preceding medium-busy event was caused by detection of a frame that was not received at this STA with a correct FCS value. If, under these conditions, the medium is determined by the CS mechanism to be busy when a STA becomes ready to initiate the initial frame of a frame exchange sequence (described in Annex G), exclusive of the CF period, the random backoff procedure described in 10.3.4.3 (Backoff procedure for DCF) shall be followed. There are conditions, specified in 10.3.4.3 (Backoff procedure for DCF) and 10.3.4.5 (Control of the channel), where the random backoff procedure shall be followed even for the first attempt to initiate a frame exchange sequence.”With“A STA may transmit a pending MPDU when it is operating under the DCF access method, either in the absence of a PC, or in the CP of the PCF access method, when the STA determines that the medium is idle when a frame is queued for transmission, and remains idle for a period of a DIFS, or an EIFS (10.3.2.3.7) from the end of the immediately preceding medium-busy event, whichever is the greater, and the backoff timer is zero. Otherwise the random backoff procedure described in 10.3.4.3 (Backoff procedure for DCF) shall be followed."
     3. No objection – Mark Ready for Motion
  5. **Review doc 11-16/292r1** - Peter Ecclesine -- Adrian STEPHENS (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0292-01-000m-sb1-ecclesine-resolutions.docx>
     2. CID 7720 (MAC)
        1. Previous Resolution: MAC: 2016-03-17 06:41:02Z: Pulled from MAC-BO. Request for more time to confirm the proposed changes are not in conflict with any other existing text.

REVISED (MAC: 2016-02-25 19:33:41Z): Incorporate the text changes in 11-16/0292r1 (https://mentor.ieee.org/802.11/dcn/16/11-16-0292-01-000m-sb1-ecclesine-resolutions.docx). This clarifies the behavior of Channel Switch Mode equal to 1 in the various BSS types.

* + - 1. The CID was pulled from a motion and Adrian was checking for a conflict.
      2. Will be scheduled for the May 13th Telecon
      3. “may ignore” was the trigger that caused the review
  1. **CID - Editorials objected to**
     1. CID 7374 (EDITOR)
        1. Review comment
        2. “multiple” is always integer
        3. “integral multiple” changed to “integer multiple”
        4. Proposed resolution: Revised; change all “integral” to “integer”, except at 3582.57. Change all “integer multiple” to “multiple”.
        5. No objection - Mark Ready for motion.
  2. **CID Editor - Frame Formats**
     1. CID 7652 (EDITOR)
        1. Review comment
        2. Proposed resolution: Revised; Move the para to become the new first list item at 1767.01.
        3. No objection – Mark Ready for Motion
     2. CID 7780 (EDITOR)
        1. Review comment
        2. We discussed frame formats and Vendor Specific yesterday, but this may be the same issue.
        3. This is looking to remove the Vendor Specific sub-elements row.
        4. Similar to CID 7038.
        5. Proposed resolution: Revised; Remove the table row for vendor-specific subelement at pages 1134, 1147, 1204 and 1205.

Note to editor, resolution of another comment also delete the tables contains these rows in p1134, p1204 and p1205

* + - 1. No objection – Mark ready for motion with CID 7038
    1. CID 7558 (EDITOR)
       1. Review comment
       2. There is no such frame as “FT Authentication Frames”
       3. From the comment: Table 9-35---Authentication frame body should not explicitly discuss which type of authentication, since this then needs to be kept in sync with Table 9-36---Presence of fields and elements in Authentication frames. Just always say just "A Blah element is present only in certain Authentication frames as defined in Table 9-36 (Presence of fields and elements in Authentication frames)." This also fixes the spurious article in "present in the FT Authentication frames" (5 instances).
       4. We may want to review the table in more detail to ensure we get the proper names of the frames being referenced.
       5. Proposed resolution: REVISED (EDITOR: 2016-04-27 13:38:29Z) - Change in table 9-35 from "Challenge Text" entry onwards to match the template:"A (or An) … is present only in certain Authentication frames as defined in Table 9-36 (Presence of fields and elements in Authentication frames)."
       6. No objection – Mark Ready for Motion
  1. **Review doc 11-16/554r1** - Menzo WENTINK (Qualcomm)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0554-01-000m-extended-nss.docx>
     2. Review submission proposed changes
     3. There are several CIDs that cover this text area.
     4. This submission may be used as a basis for resolving those CIDs.
     5. Table 9-74 has been updated and provided to make it clear what is being presented.
     6. Encourage people to review – Need to add CIDs that this covers, and if an introduction could be added as well that would help readers.
     7. ACTION ITEM #9: Menzo to send to reflector announcing it ready for presentation in Hawaii – Adrian to provide list of CIDs that this submission may resolve.
  2. **Recess** at 3:00pm

1. **REVmc BRC Face to Face in Cambridge Wednesday, 27 April 2016, PM2, 15:30-18:00pm UK**
   1. **Called to order at** 2:32pm by the chair Dorothy STANLEY (HPE)
   2. **Attendance:**

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Jinjing Jiang (Marvell); Dan Harkins (HPE)

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Agenda 11-543r5**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-05-000m-agenda-brc-cambridge-april-2016.docx>
     2. **April 27 PM2 3:30-6:00pm:**Motions (30 minutes)  
        11-15-1184 – Dan Harkins (15 mins)  
        11-15-447r2 -   
        11-16-0384 – Dan Harkins, CIDs 7533, 7536, and 7537  
        Security CIDs 7377, 7572, 7604  
        11-16-tbd Matthew Fischer CIDs
     3. **No objection to the agenda**
  3. **Motions:**
     1. **Motion 204:**

Move to incorporate the text changes indicated under CID 6431 (on page 64) in 11-16-0276r4 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-04-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>> under “Proposed changes”. These changes correct text in Table 9-19 related to A-MSDU size, PSDU size, and a reference.

* + - 1. Moved: Mark RISON Seconded: Edward AU
      2. Discussion:
         1. Question on which draft the changes were based on. The changes are referenced to D5.0
      3. **Result: 6-0-1 motion passes**
    1. **Motion 205:**

Motion: Approve the comment resolutions in the following documents and tabs indicated and incorporate the indicated text changes into the TGmc draft:

* “Reworked - ready for motion” Tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-38-000m-revmc-sponsor-ballot-comments.xls>
  + - 1. Moved: Adrian STEPHENS 2nd: Graham SMITH
      2. Discussion:
         1. what is the proper location of “at the antenna”
         2. This is in the agreed location.
      3. **Result: 5-0-2 Motion passes**
    1. **Motion #206:**

Motion: CID 7586 – Resolve CID 7586 as “Rejected” with a resolution of “The supported Data Rates Rx table specifically includes “mandatory rates”. The Operational Rate Set is the complete set of rates that the STA is capable of receiving and as such must also include the mandatory rates as per the dot11 Supported Data Rates Rx Table.”

* + - 1. Moved: Graham SMITH 2nd: Adrian STEPHENS
      2. **Result: 6-1-0 Motion Passes**
    1. **Motion #207:**

Motion re: Decoupling MU Beamformee: Move to Resolve CIDs 7166, 7167, 7168 (MAC), and 7169 (MAC): as “Rejected” with a reason of:  
“The comment does not indicate an error in the change introduced by the resolution to CID 5879. The change made by CID 5879 is in scope of a revision project.   
Regarding specific changes made related to decoupling MU Beamformee Sounding capability from MU PPDU reception capability, the exact determination of the beamforming matrix by the AP has always been outside the scope of the standard. The AP controls the number of streams that a STA will feed back. As such, it can continue to operate as it did before the text changes and no extra processing or complexity results from the changes made with the resolution of CID 5879. The change is fully backwards compatible with current devices.”

* + - 1. Moved: Adrian STEPHENS 2nd: Graham SMITH
      2. **Result: 5-2-0 motion fails**
  1. **Review doc 11-16/384r0 Dan Harkins (HPE)**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0384-00-000m-clarity.docx>
     2. CID 7533 (MAC)
        1. Review comment
        2. Discussion on the format of the GTK string.
        3. No definition of the key format was identified.
        4. Look at D5, p2002.
        5. Discussion on how to get the GTK string, how is it derived, and how it is defined.
        6. Assign the CID to Mark Rison
     3. CID 7536 (GEN) and CID 7537 (GEN)
        1. Review comments
        2. Comment is the same on two different locations
        3. From D5.3: we have made changes already:

where KDF-Hash-256(#6183)is the key derivation function defined in 12.7.1.7.2 (Key derivation function (KDF)) using the hash algorithm identified by the AKM suite selector (see Table 9-132 (AKM suite selectors(#6879))). (#7570)(#7738)(#6183)(#3439)

* + - 1. Discussion on how to derive the keys
      2. One of the main issues is if the OUI and the Suite type is concatenated to the selected AKM Suite
      3. Proposed Resolution for CID 7536 and CID 7537: REVISED (GEN: 2016-04-27) Incorporate the changes in 11-16/384r1 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0384-01-000m-clarity.docx>**>** these changes clarify the content of a selected AKM suite.
  1. **Review doc 11-16/447r3 – Dan HARKINS (HPE)**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0447-03-000m-some-additional-comments.docx>
     2. CID 7249 (GEN) 11-16/447r4
        1. Discussion on trying to resolve the recollection of the text that the group agreed to in Macau. The document that captured the actual text was lost, and so we are recovering.
        2. For step e, the EAPOL-Key frame is sent
        3. Proposed resolution: Revised: Incorporate the changes in 11-16/447r4 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx>> these changes clarify the content of the frame.
        4. Mark Ready for Motion
     3. CID 7318 (GEN) 11-16/447r4
        1. Was pulled, but is accepted.
        2. Mark ready for motion with the previous Resolution
        3. Proposed Resolution: ACCEPTED (GEN: 2016-03-16)
        4. Mark ready for Motion
     4. CID 7335 (GEN) 11-16/447r4
        1. Review comment
        2. Proposed resolution: REVISED (GEN: 2016-04-27 15:50:08Z) - Incorporate the text changes in 11-16/447r4 <https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx> for CID 7335; these changes change the text in the direction of the commenter's request.
        3. Mark ready for motion
     5. CID 7571 (GEN) 11-16/447r4
        1. Review comment
        2. This CID was pulled in Macau because r2 was not available.
        3. Reword the 12.7.9.2 paragraph
        4. Proposed resolution: REVISED (GEN: 2016-04-27 15:52:22Z) - Incorporate the text changes in 11-16/447r4 <https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx > for CID 7571 these changes further describe the parameter contents.
        5. Mark ready for motion
     6. CID 7710 (GEN) 11-16/447r4
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2016-04-27 15:57:47Z) - Incorporate the text changes in 11-16/447r4 <https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx> for CID 7710, these changes delete the unneeded enumeration as suggested by the commenter.
        3. Mark Ready for motion
     7. CID 7729 (GEN) 11-16/447r4
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2016-03-16 22:37:48Z) Incorporate the text changes in 11-16/447r4 <https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx> for CID 7729. These changes resolve the comment in the direction of the commenter.
        3. Mark ready for motion
     8. Confirmed CID 7728 and CID 7730 were motioned previously.
     9. CID 7740 (GEN) 11-16/447r4
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2016-04-27 16:01:04Z) - Incorporate the text changes in 11-16/447r4 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx>> for CID 7740. Resolves the comment in the direction suggested by the commenter.
        3. Mark Ready for Motion
  2. CID 7377 (GEN) 11-16/276r6
     1. Review comment
     2. Discussion on PSK vs SAE
     3. Sentence that is being debated: “A STA performing secure password based, or PSK, authentication uses SAE authentication.”
        1. Suggestion to drop “or PSK”
        2. Suggestion to reorder the sentence: SAE authentication is used for secure password based authentication.
        3. Debate on the additional Note to add.
        4. Debate on how secure PSK is or not.
     4. Straw Poll 1:
        1. Should we add the extra Note?
           1. Result: Yes:0 No:5 Abstain:1
     5. Straw Poll 2:

1. Make change: At 1966.22 change “A STA performing secure password-based, or PSK, authentication uses SAE authentication.” to “A STA performing password-based authentication uses PSK or SAE authentication.”
2. Delete “, or PSK,”
3. No change
4. abstain
   * + 1. Results: A)2 B)3 C)1 D)
     1. We will go with B)
     2. Proposed Resolution: REVISED (GEN: 2016-04-27 16:25:27Z) Delete ", or PSK," at the cited text.
     3. Mark ready for motion – Make a Separate Motion
   1. CID 7572 and CID 7604 are not ready for discussion today.
      1. Both are included in Mark RISON’s submission 11-16/276
   2. **Review doc 11-16/562r0** Dan Harkins (HPE)
      1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0562-00-000m-suite-b-akm-update.docx>
      2. Presentation of the submission
      3. From the submission discussion: Discussion:

The National Security Agency (NSA) of the United States of America recently release guidance on the use of Suite B cryptography. Part of this guidance allowed for RSA digital signatures (of a suitable key length) to be used in a Suite B-compliant cipher suite in addition to ECDSA digital signatures.

The current definition of the Suite B AKMs states that the EAP method used in 802.1X authentication shall support an elliptic curve of the appropriate strength which is somewhat ambiguous as whether that requirement is on the digital signatures as well as on the Diffie-Hellman calculation.

* + 1. The only change is in table 9-122 and change EC to ECDH for suite type 11 and suite type 12.
    2. ACTION ITEM #10: Dan to send to the reflector an announcement of this document and plan to motion in May.
  1. **Review doc 11-16/1184r7** Dan HARKINS (HPE)
     1. <URL-2>
     2. Can resolve CID 7160 (GEN)
     3. Update on the status of the submission
     4. Presentation at IETF was well received, and Dan was encouraged to bring to 802.11 again and try to get it included.
     5. Concern on the security of the OWE proposal
     6. How to help the user select more secure options?
     7. How would this be presented to the end user as an option?
        1. This would not provide a “lock” icon, so the user would see this similar to an open connection. The user avoids passive eavesdropping.
        2. This is not a user choice, it is an opportunistic feature that if it can be done it would be used, but not as a choice for security.
  2. **Pulled CIDS** continued
     1. CID 7648 (MAC)
        1. Previous Resolution:
  3. CID 7648 (MAC)

3.6.2 Proposed Resolution: REVISED (MAC: 2016-04-01 15:31:44Z):  Replace the “Notes” cell at 838.31 with:

“This field indicates support for PSMP operation. See 10.29 (PSMP Operation).

Set to 0 if the STA does not support PSMP operation

Set to 1 if the STA supports PSMP operation”

* + - 1. The Concern from Mark RISON for pulling the CID: if PSMP can only be used in an infrastructure network, then maybe the better change is to say the bit is reserved in any other kind of network
      2. After short discussion, it was decided to Mark Ready for motion with the former resolution:

Proposed Resolution: REVISED (MAC: 2016-04-01 15:31:44Z):  Replace the “Notes” cell at 838.31 with:

“This field indicates support for PSMP operation. See 10.29 (PSMP Operation).

Set to 0 if the STA does not support PSMP operation

Set to 1 if the STA supports PSMP operation”

* + - 1. Mark Ready for Motion
    1. CID 7494 (MAC)
       1. Was pulled from motion from April 15.
       2. From the minutes and notes on concern:

1.3.9        CID 7494 (MAC)

1.3.9.2 Proposed Resolution: REVISED (MAC: 2016-04-01 15:38:46Z):

At 1076.07 replace: [[mgr1]](https://mail.google.com/mail/u/0/" \l "m_8705152399670664624__msocom_1)

"Single value TLV comprising fields in related table in …"

with:

"One or more TLV fields identified as a Device Identification Information Value field[[mgr2]](https://mail.google.com/mail/u/0/" \l "m_8705152399670664624__msocom_2) , as defined in …"

[[mgr1]](https://mail.google.com/mail/u/0/#m_8705152399670664624__msoanchor_1)Or is it that the DII field can contain multiple TLVs (i.e. you have TLVs in a TLV)?

 [[mgr2]](https://mail.google.com/mail/u/0/#m_8705152399670664624__msoanchor_2)What does this mean?

* + - 1. Discussion on the concern and revisit the CID
      2. See p1074 for context
      3. Discussion on TLVs
      4. Review Table E-8
      5. One proposed change: At 1076.07 replace: "Single value TLV comprising fields in related table in …" with: "One or more TLV fields identified as a Device Identification Information Value TLV, as defined in …"
      6. Another alternative: “One or more TLV fields as defined in Table E-8”
      7. Ran out of time
  1. **Recessed** 6:05pm

1. **REVmc BRC Face to Face in Cambridge Thursday, 28 April 2016, AM1, 10:00-12:00 UK**
   1. **Called to order** at 10:04am by the chair, Dorothy STANLEY (HPE)
   2. **Attendance**:

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Edward AU (Huawei);

Called in during some part of the meeting: Menzo WENTINK (Qualcomm);

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Agenda 11-16/543r6**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-06-000m-agenda-brc-cambridge-april-2016.docx>
     2. **Thursday April 28 AM1 10:00-12:00**Graham 11-16-268 CID 7090 (20 mins)  
        11-16-0276 - Mark Rison (90 mins)
     3. **April 28 PM1 1:00-3:00pm**Gen-Macau Pulled - CIDs 7494, 7539, 7702, and 7701.  
        Adrian CIDs:, PHY SAP, Terminology  
        Motion MAC –BM pulled – 7086  
        GEN-Review CIDs 7334, 7483, 7298  
        11-16-541r2 –Assaf (15 mins)
     4. **April 28 PM2 3:30-5:30pm:**Motions (30 minutes)  
        11-15-0292 - Peter E – CID 7170   
        11-16-374r5 – Emily - CID 7310  
        11-16-0290 – Mark Hamilton  
        11-16-221 - Motion MAC –BM pulled – 7086  
        CID 7772 (11-16-new-GS-document)  
        CID 7317, 7324 (SSID encoding)
     5. **Listed Motions for Afternoon session:**
        1. Rejected Editorials
        2. Gen-April F2F
        3. Gen-April-Telecon
        4. CID 7377
        5. CID 7038 and 7780
        6. CID 7532
        7. CID 7138 – Assaf’s proposal covers Topic
     6. Question about Assaf’s presentation:
        1. 11-16/541r2 will be presented later today
        2. 11-16/220r3 was the resolution for a CID 7142
        3. Propose to change resolution for CID 7142 to have the same resolution as CID 7138, and a separate motion
     7. No further changes or comments – agenda approved as noted 11-16/543r7
  3. **Review doc 11-16/268r1 -** Graham SMITH (SR Technologies)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0268-01-000m-resolution-for-cid-7090-d5.docx>
     2. CID 7090 (MAC) and CID 5144 (EDITOR – previous ballot)
     3. Review changes proposed
     4. Delete the sentence for the MESH STA and make R2
     5. Proposed Resolution: Revised; Incorporate the changes in 11-16/268r2 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0268-02-000m-resolution-for-cid-7090-d5.docx>> which clarifies TXOPs and MCAOPS interaction.
     6. ACTION ITEM #11 Menzo – will review to ensure sufficient. –
     7. No Objection – Mark Ready for motion - Plan to motion on the 6th of May
  4. **Review doc 11-16/276r6 –** Mark RISON (Samsung)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>
     2. CID 7396 (MAC)– need Mark HAMILTON
     3. CID 7478 (MAC)
        1. Review comment
        2. Review discussion
        3. Expect more input from Menzo and Mark H.
        4. Do we want to allow A-MSDUs or only MSDU?
        5. Does a suspended Block Agreement change the rules of when the A-MSDU to be sent or only the MSDUs?
        6. When a STA goes into Powersave mode, the BA is suspended, and then any single “normal” PS mode frames can be sent. When the BA is suspended during legacy Powersave, you don’t use it. And use the normal methods during this period of time.
        7. We can separate the BlockAck into two elements – one is the channel access without an immediate ack and the 2nd is the keeping of the state and reordering etc. So it could be that the Powersave Poll is going to get restricted access, but you still have the 2nd order features of reordering and windowing etc. To not do so would potentially discard other frames that had been received, but not completed in the receiving out of order parts.
        8. The sentence at p1574.36 was written a long time ago, and so it is probably just wrong given the current state of behavior.
           1. We could have some choices for change:

“the BA agreement is suspended and the rules described in xxx for PS-Poll operation apply.

Or “the rules described in xxx for PS-Poll operation apply.

Or” “the rules described in xxx for PS-Poll operation apply. The (A-)MSDU might be delivered in an A-MPDU.

Or Just delete the sentence

* + - 1. New Proposal to delete the sentence and then add a Note
      2. The elements of the BA such as the scoreboard and the use of BA frames following an A-MPDU should still be in effect.
      3. Proposed resolution: Revised Delete the cited text and replace it with the following NOTE:NOTE—When a STA is in normal (non-APSD) PS mode, the rules described in 11.2.2.6 for PS-Poll operation apply to any downlink block ack agreement without an associated schedule. An (A-)MSDU delivered for this block ack agreement in response to the PS-Poll frame might be delivered in an A-MPDU.
      4. No objection – Mark Ready for Motion – expected motion on May 6th
    1. CID 7500 (MAC) – still open
    2. CID 7572 (MAC) and CID 7604 (GEN)
       1. Discussion with Jouni has changed Mark’s thought, so reviewed to see if the BRC agrees with the direction
       2. Review comment
       3. From Submission:

“Discussion:

Something needs to specify the Key ID to be used for transmission of encrypted frames. I originally thought this had to be the MLME-SETKEYS.request primitive, since no other request primitive, other than MLME-DELETEKEYS.request, seems to carry a Key ID. However, Jouni MALINEN thinks that actually it’s the MAC that picks the Key ID (in an implementation-defined manner).

MLME-PN-EXHAUSTION.indication and MLME-PN-WARNING.indication have N/A for the Key ID, which needs to be addressed too.”

* + - 1. Need more work, recognize that the pseudo code has been there for a long time, and may not need to be changed
      2. Beware of existing implementation usage and race condition
      3. More work needed.
    1. CID 7796 (MAC) more work needed
    2. CID 7608 (MAC)
       1. Review comment
       2. Discussion on future 10-19 – DCF Timing Relationship
       3. Discussion on the SIFs relationship to aSIFS
       4. From the submission discussion:

Discussion:

There is no subclause discussing the relationship between aMACProcessingDelay and the IFS/slot timing for EDCA, but there is a figure equivalent to Figure 10-19, namely Figure 10-26 in 10.22.2.4. The IFS and slot timings are defined by Subclause 10.3.7 even for EDCA. This is not always referenced, though. The approach taken below is to stick to 10.3.7 for the IFS/slot duration definitions, but to refer to 10.22.2.4/F10-26 for slot boundaries and behaviour under EDCA.

* + - 1. Discussion on the proposed changes in the resolution.
      2. Proposed Resolution: Incorporate the “Proposed changes” for CID 7608 in 11-16/276r7 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-07-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx> > which effect the requested changes.
      3. No objection – Mark ready for motion
    1. CID 7529 (MAC) – info from Jouni, but not complete
    2. CID 7349 (MAC) – still open
    3. CID 7674 (MAC)
       1. The document from Menzo will address this CID.
       2. Assign CID to Menzo
    4. CID 7278, CIDs 7280-7292 – still open
    5. CID 7277 (MAC) – assigned to Carlos Aldana
       1. ACTION ITEM #12: Dorothy to send Email to check status.
       2. CID 7742 was also assigned to Carlos
  1. **Review more Pulled CIDs**
     1. CID 7494 (MAC)
        1. Review Comment from last night
        2. Proposed resolution: Revised: Change cited text to “One or more TLV fields as defined in Table E-8”
        3. No objection – Mark Ready for Motion
     2. CID 7539 (MAC)
        1. Previous Proposed Resolution: REVISED (MAC: 2016-04-01 16:03:50Z):

At 1287.34 replace "The STA shall discard the frame" with "The STA shall discard the frame it it matches an entry in the cache".

At 1286.13 replace ", and RC9" with ", RC9, and RC10".

There is no need to add non-DMG to rows that cite RR1 and RR3. RC2, for example, cites RR1 and RR5. Because RR1 excludes DMG STAs, in a DMG STA RC2 is subject only to receiver requirement RR5. This is different from excluding RC2 itself from DMG STAs, which would leave them with no cache for QoS Data frames.

* + - 1. Discuss the changes to the Proposed resolution:
      2. Only the typo changing “it it” to “if it”
      3. Proposed Resolution: At 1287.34 replace "The STA shall discard the frame" with "The STA shall discard the frame if it matches an entry in the cache".

At 1286.13 replace ", and RC9" with ", RC9, and RC10".

There is no need to add non-DMG to rows that cite RR1 and RR3. RC2, for example, cites RR1 and RR5. Because RR1 excludes DMG STAs, in a DMG STA RC2 is subject only to receiver requirement RR5. This is different from excluding RC2 itself from DMG STAs, which would leave them with no cache for QoS Data frames.

* + - 1. No objection Mark ready for Motion
    1. CID 7701(EDITOR) and CID 7702 (EDITOR)
       1. CID 7701 was already motioned #195.
       2. CID 7702 mark as ready for motion as noted in the previous resolution:
       3. **Proposed Resolution for CID 7702**: REVISED (EDITOR: 2016-04-01 17:02:47Z) - Keeping "at the antenna" is consistent with other places in the document, however the sentence can be clarified as follows:

Change:

"CCA shall report busy at least while a PPDU with energy above the ED threshold is being received at the antenna."

To:

"CCA shall report busy at least while a PPDU is being received with energy above the ED threshold at the antenna."

* 1. **Editor CIDS**:
     1. CID 7269 (EDITOR)
        1. Review comment
        2. Missing row from table 8-2.
        3. Proposed resolution: ACCEPTED (EDITOR: 2016-01-29 15:40:36Z)
        4. No objection – Mark Ready for Motion
     2. CID 7184 (EDITOR)
        1. Review comment
        2. Prior Proposed Resolution: REVISED (EDITOR: 2016-01-29 10:57:06Z) - Change "Message <n>" to "message <n>", except where syntax requires initial cap.

Make changes as specified, except:

do not change case of preceding: "Peer Key" or "PeerKey"

do not change when indicating an AKM enumeration

do not change "TPK Handshake Key"

* + - 1. No objection – Mark Ready for Motion
      2. These changes have been speculatively edited in to D5.3.
      3. Suspect locations where the Handshake was still upper case:
         1. P2076.51 (D5.3) – may need to be reworded

D5.0: Clause 12.7.9.4.2 – p2033.16

Change to “indicate” and lower case the “Handshake”

* + - * 1. P2077.49 (D5.3) – Similar issue

Change the lower case “handshake”

* + - * 1. P2079.51 (D5.3) – Upper case Handshake –

This sentence would need rewording

The scope this CID is to change the case, of Handshake and Key, but not address the need to reword the sentence.

* + 1. Updated Proposed resolution: REVISED (EDITOR: 2016-01-29 10:57:06Z) - Change "Message <n>" to "message <n>", except where syntax requires initial cap.Make changes as specified, except:do not change case of preceding: "Peer Key" or "PeerKey"And change "TPK Handshake Key" to "TPK handshake key"At 2033.16 change "The AKM suite list field shall be set to TPK Handshake (00-0F-AC:7)." to "The AKM suite list field shall be set to indicate TPK handshake (00-0F-AC:7)."
    2. No objection – Mark Ready for Motion
  1. **Recessed** at 12:00pm

1. **REVmc BRC Face to Face in Cambridge Thursday, 28 April 2016, PM2, 13:00-15:00 UK**
   1. **Called to order** at 13:01am by the chair, Dorothy STANLEY (HPE)
   2. **Attendance:**

In person: Dorothy STANLEY (HPE); Graham SMITH (SR Technologies); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Menzo WENTINK (Qualcomm); Mark Hamilton (Ruckus); Assaf KASHER (Intel)

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Agenda 11-16/543r6**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-06-000m-agenda-brc-cambridge-april-2016.docx>
     2. **April 28 PM1 1:00-3:00pm**Gen-Macau Pulled - CIDs 7494, 7539, 7702, and 7701.  
        Adrian CIDs:, PHY SAP, Terminology  
        Motion MAC –BM pulled – 7086  
        GEN-Review CIDs 7334, 7483, 7298  
        11-16-541r2 –Assaf (15 mins)
  3. **Editor CIDs:**
     1. CID 7270 (EDITOR)
        1. Review comment
        2. Proposed Resolution: REJECTED (EDITOR: 2016-01-29 11:17:06Z) - "DMG" is a qualifier used in both the name of the PHY and the STA - "a DMG STA". It is entirely appropriate that DMG-specific characteristics are labelled thus.
        3. What about the other PHY not doing similar naming?
           1. In table 11-21, the attributes there are DMG specific, but only 4 have “DMG” in the name. This is inconsistent.
           2. Deleting/changing the name does not improve the clarity.
           3. Straw Poll:

A) change the name

B) reject no change

C) abstain

Results: 1-3-1

* + - * 1. Proceed with proposed resolution to reject.
    1. CID 7482 (EDITOR)
       1. Review comment
       2. Proposed Resolution: REVISED (EDITOR: 2016-01-28 12:19:57Z) - Change all "on the air" to "on the WM",

except change to "over the WM" at 1634.13.

Change all "on-the-air" to "over-the-WM".

Change all "at the air interface" to "on the WM".

* + - 1. No Objection – Mark Ready for Motion
    1. CID 7490 (EDITOR)
       1. Review comment
       2. Proposed Resolution: ACCEPTED (EDITOR: 2016-01-28 14:02:12Z)
       3. No Objection – Mark Ready for Motion
    2. CID 7810 (EDITOR)
       1. Review comment
       2. CID 7816 is a related comment in that it made similar change: “Proposed Resolution: Revised: Change the sentence to, “IEEE Std 802.11 is required to appear to higher layers [logical link control (LLC)] as a general-purpose IEEE 802 LAN.”
       3. Proposed Resolution: REVISED (EDITOR: 2016-01-29 14:24:54Z) - Change 3 cited occurrences of "wired LAN" to "non-IEEE-Std-802.11 LAN".
       4. No Objection – Mark Ready for Motion
  1. **Pulled MAC CID**
     1. CID 7086 (MAC)
        1. Review comment
        2. Already done earlier this week.
  2. **Pulled GEN CID**
     1. CID 7334 (GEN)
        1. Review comment: There is no "Figure 19-26 (PHY receive procedure for HT-greenfield format PPPDU)."
        2. Commenter’s change: Find it, put it in, and delete one of the Ps in "PPPDU"
        3. Previous Proposed Resolution: GEN: 2016-03-07 Proposed Resolution: Revised: at (d5.2) p2450.6 and p2451.29 change PPPDU to PPDU.
        4. Discussion on where is the Figure? Does it exist?
        5. Yes it does, but for some reason it did not appear in D5.0.
        6. Updated Proposed Resolution: REVISED (GEN: 2016-04-28 12:31:28Z): at (d5.2) p2450.6 and p2451.29 change PPPDU to PPDU. Note to editor to verify that figure 19-26 is visible in the balloted version.
        7. No Objection – Mark Ready for Motion
     2. CID 7483 (GEN)
        1. Review comment
        2. Previous Resolution: GEN: 2016-03-07 - Reject: the text is correct. The value of the capability variable is determined by the device.
        3. The form of the MIB variables was defined by ARC to gain a consistency for each of the MIB variables.
        4. Proposed Resolution: REJECTED (GEN: 2016-04-28 12:38:20Z) Reject: This description follows a pattern that is used for all types of MIB variables. This pattern first describes the type of variable and then how the value is determined.
        5. No objection – Mark ready for Motion
     3. CID 7298 (GEN)
        1. Review comment
        2. Previous Resolution: GEN: 2016-03-07 - Proposed resolution: Reject: the DEFVAL is defined for the object, the device can change that value.
        3. Discussion on the use of a Default value and if the device can set the Devalue value. The CID could be rejected on the basis of scope, but we may want to provide a change for device capability default MIB variable values.
        4. Proposed Resolution: REJECTED (GEN: 2016-04-28 12:44:03Z): The comment is out of scope: i.e., it is not on changed text, text affected by changed text or text that is the target of an existing valid unsatisfied comment.
        5. Marked Ready for Motion
  3. **Review doc 11-16/260r3** Adrian STEPHENS
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0260-03-000m-sb1-stephens-resolutions-part-2.doc>
     2. CID 7075 (MAC) – more work still needed.
     3. CID 7074 (MAC) and 7077 (MAC)
        1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0260-03-000m-sb1-stephens-resolutions-part-2.doc>
        2. Review comment
        3. Have ongoing dialog with Ganesh
        4. An exchange between Adrian and Genesh was added to the document and will be in R4.
        5. Need to schedule Ganesh to join a Telecon to discuss the Issues – Plan for May 6th.
  4. **Review Open CIDs for Menzo**
     1. CID 7694 and 7691 should be resolved by Menzo 11-16/554 documents
     2. Assign both CIDs to Menzo
     3. CID 7476 also was assigned to Menzo
     4. CID 7675 may need to be moved to Menzo but we did not today.
  5. CID 7103 (EDITOR)
     1. Review Comment
     2. Proposed Resolution: Revised. At 1883.24 deleted the column headed “B0-B1 (BW) in TVHT-SIG-A1”
     3. No Objection – Mark Ready for Motion
  6. CID 7799 (EDITOR)
     1. Review CID
     2. This is a comment on an old submission that the commenter asserts has changes that are not incorporated that should have been addressed.
     3. The comment itself is not proper as it has an attachment by reference, and so technically can be rejected due to the form and scope of the comment.
     4. Proposed Resolution: Rejected; The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
     5. Mark as Ready for Motion – Hold a separate Motion for this one
  7. Review Motion material
     1. Review 11-15/532r39
        1. Look at tabs for the completed CIDs and the motion text that could be used for this file.
        2. For the Submission Required Tab, all CIDs not assigned, assign to the commenter. Then for those CIDs that do not have a submission, we will reject for lack of information later.
        3. Mark HAMILTON joined – he has some comments we can review now.
  8. **Review doc 11-16/290r4** Mark HAMILTON (Ruckus)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0290-04-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>
     2. CID 7790 (MAC)
        1. Review comment
        2. Related to the DIFs argument and when can you transmit with or without a backoff.
        3. The CID 7086 makes changes to the cited location.
        4. The word “pending” needs to still be deleted.
        5. See reference from earlier in this file: 8.6.2 CID 7086 (MAC) 11-16/221r2.
        6. More work on this CID.
     3. CID 7146 (MAC)
        1. Review comment
        2. Need to identify the subject matter expert.
        3. Unsure the MPDU or the PSDU are forwarded, and is the encryption done for the relay or the intended receiver.
        4. Need to check with Carlos CORDIERO.
        5. Time constraints to publishing the current draft may help direct the direction of the potential resolution.
     4. CID 7814 (MAC)
        1. Review comment
        2. Review possible change: Delete the NOTE at line 29, and move the body sentence of the note to be the last sentence of the paragraph at line 12, starting “If there is no RTS/CTS exchange”
        3. Need to have a “shall” put into the final sentence and thus the sentence will need more work before re-presenting.
  9. **Review Doc 11-16/541r2** Assaf KASHER (Intel)
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0541-02-000m-sc-64-qam-response-to-editor-comments.docx>
     2. Review updates from the previous version
     3. A couple editorial changes were suggested
     4. Don’t have the parenthetical in P1053l39-48, and typo on spelling of respectively. Indicates should be indicate.
     5. This document will be updated to R3 and post. This will then be motioned during the next time slot.
  10. Recessed at 3:00pm

1. **REVmc BRC Face to Face in Cambridge Thursday, 28 April 2016, PM2, 15:30-17:30 UK**
   1. Called to order at 3:33pm by the chair Dorothy STANLEY (HPE)
   2. Attendance:

In person: Dorothy STANLEY (HPE); Mark RISON (Samsung); Jon ROSDAHL (Qualcomm); Adrian STEPHENS (Intel); Eward AU (Huawei);

Called in during some part of the meeting: Menzo WENTINK (Qualcomm); Mark Hamilton (Ruckus); Assaf KASHER (Intel); Emily QI (Intel); Jinjing Jiang (Marvell)

* 1. **Review Patent Policy**
     1. No issues
  2. **Review Agenda 11-16/543r7**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0543-07-000m-agenda-brc-cambridge-april-2016.docx>
     2. **April 28 PM2 3:30-5:30pm:**Motions (30 minutes)  
        11-15-0292 - Peter E – CID 7170   
        11-16-374r5 – Emily - CID 7310  
        11-16-0290 – Mark Hamilton  
        CID 7317, 7324 (SSID encoding)  
        CID 7772 (11-16-new-GS-document)
  3. **Motions**
     1. **Motion 208: CID 7138 (GEN)**

Resolve CID 7138 as “Revised” with a resolution of “Incorporate the text changes in 11-16-0541r3 (https://mentor.ieee.org/802.11/dcn/16/11-16-0541-03-000m-sc-64-qam-response-to-editor-comments.docx) and 11-16-220r3(<https://mentor.ieee.org/802.11/dcn/16/11-16-0220-03-000m-clause-20-extended-mcs-set.docx> ) This implements the changes suggested by the commenter.”

* + - 1. Moved: Assaf KASHER Seconded: Emily QI
      2. Discussion - none
      3. **Result: 6-0-3 Motion Passes**
    1. **Motion 209: CID 7142 (EDITOR)**

Resolve CID 7142 as “Revised” with an updated resolution of “Incorporate the text changes in 11-16-0541r2 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0541-02-000m-sc-64-qam-response-to-editor-comments.docx>) and 11-16-220r3 (<https://mentor.ieee.org/802.11/dcn/16/11-16-0220-03-000m-clause-20-extended-mcs-set.docx> ) This implements the changes suggested by the commenter.

* + - 1. Moved: Edward AU Seconded: Adrian STEPHENS
      2. Discussion - none
      3. **Result:6-0-3 Motion Passes**
    1. **Motion #210: Editorials-Rejected**

Approve the comment resolutions in the following document and tab indicated and incorporate the indicated text changes into the TGmc draft: “Editorials-Rejected” Tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

* + - 1. Moved: Adrian STEPHENS 2nd: Jon ROSDAHL
      2. Discussion - none
      3. **Results:7-1-1 motion passes**
    1. **Motion #211: GEN and Editor Tabs**

Approve the comment resolutions in the following documents and tabs indicated and incorporate the indicated text changes into the TGmc draft:

“GEN-April F2F” Tab and GEN-April Telecon in <https://mentor.ieee.org/802.11/dcn/15/11-15-0665-30-000m-revmc-sb-gen-adhoc-comments.xlsx> except for CID 7377

“Reworked Ready for motion” Tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

“Editorials Ready for motion” Tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

* + - 1. Moved: Jon ROSDAHL 2nd: Adrian STEPHENS
      2. Discussion: None
      3. Results:7-0-2 Motion Passes
    1. **Motion #212: CID 7799 (EDITOR):**

Move to resolve CID 7799 as “Rejected” with a resolution of “The comment fails to identify a specific issue to be addressed. It fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.”

* + - 1. Moved: Adrian Stephens Seconded: Edward AU
      2. Discussion: none
      3. **Result: 7-0-2 Motion Passes**
    1. **Motion #213: CID 7377 (GEN) (remove “or PSK”):**

Move to approve the comment resolution to CID 7377 in the “GEN-April F2F” tab in <https://mentor.ieee.org/802.11/dcn/15/11-15-0665-30-000m-revmc-sb-gen-adhoc-comments.xlsx>

* + - 1. Moved: Jon ROSDAHL 2nd: Edward AU
      2. Discussion:
         1. One spoke against the motion and one for the motion.
         2. Concern for the message the change may give the industry about the value of PSK.
         3. The change is removing a “or PSK” that is in an SAE descriptive sentence and does not say anything about PSK.
      3. **Results: 2-1-6 Motion Fails**
    1. **Motion #214: Motion on CIDs 7038 (MAC) and CID 7780 (Editor):**Resolve CID 7038 as “Revised” with a resolution of “Incorporate the text changes in 11-16-273r8 under CID 7038”  
       Resolve CID 7780 as “Revised” with a resolution of “Remove the table row for vendor-specific subelement at pages 1134, 1147, 1204 and 1205”
       1. Moved: Adrian STEPHENS Seconded: Mark RISON
       2. Discussion: None
       3. **Result: 8-0-1 Motion Passes**
  1. **Review Doc 11-16/0374r5 Emily QI (Intel)**
     1. [**https://mentor.ieee.org/802.11/dcn/16/11-16-0374-05-000m-sb1-proposed-resolutions-for-some-mac-comments.doc**](https://mentor.ieee.org/802.11/dcn/16/11-16-0374-05-000m-sb1-proposed-resolutions-for-some-mac-comments.doc)
     2. CID 7310 (MAC)
        1. Review comment
        2. Review proposed changes
        3. Proposed resolution: Revised; Incorporate the changes for CID 7310 in 11-374r5 <<https://mentor.ieee.org/802.11/dcn/16/11-16-0374-05-000m-sb1-proposed-resolutions-for-some-mac-comments.doc>> which deletes the cited bullet and combines the subclauses to address the duplication.
        4. No Objection – Mark Ready for Motion
  2. **Review doc 11-16/290r4 Mark HAMILTON (Ruckus)**
     1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0290-04-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>
     2. CID 7817 (MAC)
        1. Review Comment
        2. Review discussion and proposed changes
        3. From the Discussion on where the Score boarding should go:

To optimize operation, the following are noted:

* Doing the scoreboarding before (below) MPDU Header and CRC Validation is not appropriate, since blocks which fail this check should be retransmitted to correct the error.
* Doing the scoreboarding before (below) the Address 1 filtering is also not sensible, since the context of the block ack agreement is only between the appropriate STAs (from the ADDBA negotiation).
* Doing the scoreboarding after (above) the Duplicate Detection is acceptable, but would not produce a different result, since recording the reception of a duplicate frame more than once into the scoreboard bitmap, has no effect.
* Doing the scoreboarding after (above) the MPDU Decryption similarly has no effect.
* Doing the scoreboarding after (above) the Block Ack Buffering and Reordering would be inappropriate, since blocks are only delivered out of this functional block in order, meaning only after the oldest one is received. This would defeat the purpose of block ack and the scoreboarding facility. This was also understood by the authors of 10.24.7, when defining the (limited) architecture to have scoreboard before (below) the Buffering and Reordering step.

Thus, it seems that locating the scoreboarding between the "Address 1 address filtering" and "Duplicate Detection" blocks is a reasonable choice.

* + - 1. Discussion on the effect of the integrity checks.
      2. Note that we had proposed a resolution of “Accepted” on Monday, so we have this one queued for Motion.
    1. CID 7792 (MAC)
       1. Review comment
       2. We had started the discussion on this one on Monday, review previous thoughts and indicate the new proposed resolution:
       3. Proposed Resolution: Revised; Replace “MSDU or MMPDU” with “buffered BU” at the first occurrence. Replace “MSDU or MMPDU” with “BU” throughout the rest of the paragraph (3 more occurrences). Note to Editor, keep the phrase “individually addressed” (one occurrence) where it is.
       4. No Objection – Mark Ready for Motion
    2. CID 7819 (MAC)
       1. Review comment
       2. Review the proposed changes
       3. Suggest fixing both paragraphs to align both with the figure 5-1.
       4. It would be a good idea to take the two paragraphs and make a table to show the relationships.
       5. Proposed Resolution: Revised; Incorporate the changes for CID 7819 in doc 11-16/290r4 < <https://mentor.ieee.org/802.11/dcn/16/11-16-0290-04-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>> which reorders the elements.
       6. No objection – Mark Ready for Motion
    3. CID 7814 (MAC)
       1. We talked about this last meeting slot.
       2. Still open
    4. CID 7826 (MAC)
       1. Review Comment
       2. Discussion on the change to the figure for the editor determine if the instructions were sufficient.
       3. A Mesh Gate talks to the DS on one side and the MBSS on the other.
       4. Proposed Resolution: REVISED; In Figure 9-63, insert a ‘cloud’ labelled "DS" between the Gate and Portal, and another similar one between the Gate and AP (similar to Figure 4-10).
       5. No objection – Mark Ready for Motion
  1. **Comments to review with Mark Hamilton**
     1. CID 7317 (MAC)
        1. Review the status of the CID.
        2. The resolution was prepared on April 1.
        3. The CID was pulled, Monday we discussed for a bit.
        4. One point of view is that “independently” indicates no synchronation, and the other point of view is that it needs to more strictly stating that no synchronize take place
        5. ACTION ITEM: #13: Mark RISON to propose new text and start discussion with Mark H and Graham SMITH and bring a new proposal back.
     2. CID 7324 (MAC)
        1. Review comment
        2. Review discussion from Tuesday
        3. Question on if the SSID is in the Neighbor report?
           1. Upon checking it is not the Neighbor report.
        4. What about the Diagnostic report? Yes there is a BSSID there.
        5. More discussion on how to keep track of the state of a BSSID when shared.
        6. Deleting of the last paragraph at D5.0 p730.34 may make the problem go away, because we are not making any claim for SSIDs that were obtained somewhere else. The intention that the UTF-8 applies only to the advertised SSID of a particular AP. This bit was most likely for just the Beacon and Probes.
        7. One preference was to delete or add a note
           1. If the note just points to a table, then it may not help
           2. The note would need to add context.
     3. 3 CIDs that have been requested to pull already from the MAC set, and need to be in a separate tab and separate motion – CID 7553, CID 7549; CID 7177;
  2. **Proposal to add a telecom** -
     1. Discussion on Telecon May 9 – 11am ET –
     2. Question on who could attend:
        1. Mark HAMILTON - ? Jon ROSDAHL – yes; Adrian STEPHENS – yes; Dorothy STANLEY – yes; Mark RISON – yes; Emily Qi – yes; Jinjing JIANG – yes; Menzo WENTINK – yes
     3. ACTION ITEM #14: Dorothy to Announce the new Teleconference call
  3. **Agendas for upcoming Sessions**:
     1. **May 6, 2016 teleconference:  
        CIDs 7075, 7077, 7075 (Ganesh)  
        11-16-276- CIDs 7278 et al – (Mark RISON)  
        CID 7772 – Graham (reassociation list)  
        11-16-228 – Graham, need MGR, MAH  
        CID 7698 – Edward**

**CIDs Mark RISON  
Motions: MAC, Motion on CID 7532 (HT OMN) separate motion**

**Note: Cambridge pulled CIDS: 7177, 7549 Menzo, 7553 Dan**

* + 1. **May 9th Telecon**

11-15/0292 – Peter E CID 7170

CID 7062, 7553 – Dorothy

CID 7770 – Adrian

* + 1. **May 13, 2016 teleconference (change time to later):**CID 7165 – Solomon TRAININ  
       Matthew Fischer CIDs  
       CID 7220 - Adrian
    2. **May 2016 – Waikoloa (6 timeslots)  
       Tuesday PM1 –** 11-16-554 Menzo; **Tuesday PM2 –**   
       **Wednesday PM1  
       Wednesday PM2 –**11-15-1184 – Dan **Thursday PM1  
       Thursday PM2 -** Motions
  1. **Discussion on Cambridge Pulled CIDs**:
     1. CID 7177 (MAC)
        1. Menzo would like to review the resolution, and have the motion on May 6 if no issues identified.
        2. There is a comment that the OMN element is extensible
        3. Extending another element did not work well, so fear that extending elements is not always going to work the way it is expected.
        4. Would like to have a check done and be ready for decision on May 6
     2. CID 7549 (MAC)
        1. Similar situation – adding stuff that is not expected to be there and what effects the new material causes.
        2. Would like to have a check done and be ready for decision on May 6
     3. CID 7553 (MAC)
        1. Dan objects to deleting “or mesh PMKSA” because mesh does use PMKSA.
        2. From the minutes there are two sentences and we are deleting the “or mesh PMKSA” from only one sentence.
           1. ACTION ITEM #15: Dorothy to get with Dan to see if a solution can be found.
     4. CIDS to be assigned to Menzo
        1. Assigned to Waikoloa on Tuesday PM1
        2. 11-16/554 - CID 7691, 7694, 7674, 7672, 7675.
     5. Note That All CIDs that are marked “Submission Required” may likely be rejected if the submissions are not prepared and discussed before the end of the May Interim.
        1. Possible Proposed Resolution: REJECTED; The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
        2. To be discussed further.
  2. **Calendar review**
     1. If we finished in May, and then run a ballot, we would be able to hold a telecom on June 27.
     2. Expect 2 weeks for editing once resolutions are complete.
     3. IEEE 802 Plenary is the week of the 24th July
        1. So we can do more telecons. And complete another ballot prior to the July session.
  3. **Thanks to Samsung and Mark RISON for hosting the meeting this week.**
  4. **Adjourned** at 5:33pm UK -

**References:**

**1.0 Monday AM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-01-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-02-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0273-08-000m-sb1-stephens-resolutions-part-3.doc>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0273-09-000m-sb1-stephens-resolutions-part-3.doc>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0303-02-000m-resolution-of-several-cids-for-d5.docx>

**2.0 Monday PM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

**3.0 Monday PM2:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0541-01-000m-sc-64-qam-response-to-editor-comments.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0303-02-000m-resolution-of-several-cids-for-d5.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-03-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>

**4.0 Tuesday AM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-02-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0298-00-000m-ds-assigned-cids-march-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0298-01-000m-ds-assigned-cids-march-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

**5.0 Tuesday PM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-02-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0278-03-000m-resolutions-for-cids-assigned-to-graham-d5.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0278-04-000m-resolutions-for-cids-assigned-to-graham-d5.docx>

**6.0 Tuesday PM2:**

**<URL-1>**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0291-01-000m-miscellaneous-tgmc-cid-resolutions.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0374-01-000m-sb1-proposed-resolutions-for-some-mac-comments.doc>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-02-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>

**7.0 Wednesday AM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-03-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0501-03-000m-resolution-for-some-pics-and-mib-comments.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0555-00-000m-resolution-for-miscellaneous-comments-in-sb1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0291-01-000m-miscellaneous-tgmc-cid-resolutions.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-05-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

**8.0 Wednesday PM1:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0268-00-000m-resolution-for-cid-7090-d5.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0292-01-000m-sb1-ecclesine-resolutions.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0554-01-000m-extended-nss.docx>

**9.0 Wednesday PM2:**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-05-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-04-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-38-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0384-00-000m-clarity.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0384-01-000m-clarity.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0447-03-000m-some-additional-comments.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0447-04-000m-some-additional-comments.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0562-00-000m-suite-b-akm-update.docx>

**10.0 Thursday AM1**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-06-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-06-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-07-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

**11.0 Thursday PM1**

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-06-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0260-03-000m-sb1-stephens-resolutions-part-2.doc>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-04-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0541-02-000m-sc-64-qam-response-to-editor-comments.docx>

12.0 Thursday PM2

<https://mentor.ieee.org/802.11/dcn/16/11-16-0543-07-000m-agenda-brc-cambridge-april-2016.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0220-03-000m-clause-20-extended-mcs-set.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0541-02-000m-sc-64-qam-response-to-editor-comments.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0220-03-000m-clause-20-extended-mcs-set.docx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0665-30-000m-revmc-sb-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0532-39-000m-revmc-sponsor-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/15/11-15-0665-30-000m-revmc-sb-gen-adhoc-comments.xlsx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0374-05-000m-sb1-proposed-resolutions-for-some-mac-comments.doc>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0290-04-000m-resolutions-for-some-comments-on-11mc-d5-0.docx>