IEEE P802.11  
Wireless LANs

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| Minutes of TG REVmc Telecons Sept-Nov 2012 | | | | |
| Date: 2012-10-26 | | | | |
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Abstract

Minutes for TG REVmc for Sept 28, Oct 5, Oct 12, Oct 26

Next call will be Nov 2nd.

Here are the action items from the Oct 26th call:

**ACTION ITEM 1:** Mark H to research making a conventions/definitions statement consistent with the proposed changes from Jouni for CID 99.

**ACTION ITEM 2:** Mark H. to suggest replacement wording for CID 203, and move the comment to MAC AdHoc for resolution.

1. Minutes for Sept 28th, 2012 teleconference:
   1. Called to order at 10:04 ET by Dorothy Stanley
      1. Reviewed Patent policy,
      2. Email was sent with the following list:
         1. Note that teleconferences are subject to IEEE policies and procedures, see:
         2. IEEE-SA PATENT POLICY
         3. IEEE CODE OF ETHICS
         4. IEEE-STANDARDS ASSOCIATION (IEEE-SA) AFFILATION FAQ
         5. IEEE-SA ANTITRUST AND COMPETITION POLICY
         6. IEEE-SA LETTER OF ASSURANCE (LOA) FORM
         7. IEEE-SA STANDARDS BOARD PATENT COMMITTEE (PATCOM) INFORMATION
         8. IEEE-SA PATENT FAQ
         9. IEEE 802 LAN/MAN STANDARDS COMMITTEE POLICIES & PROCEDURES
         10. IEEE 802.11 Working Group Policies and procedures
      3. No IP request or notification.
      4. Attendance:
         1. Dorothy Stephen, Adrian Stephens, Jounie Malinen, Mark Hamilton, Mark Rison, Peter Ecclesine, Jon Rosdahl
   2. Review Agenda
      1. Agenda:
2. Call to order, patent policy, WG policies and attendance
3. Comment resolution: Propose focusing on comments in clauses 1,3,4, and 10, plus any text resolutions from Indian Wells action items
4. Plan for next call(s) Oct 5, 12, 26, Nov 5
5. AOB
6. Adjourn

Reference: <https://mentor.ieee.org/802.11/dcn/12/11-12-1082-02-0000-revmc-pre-ballot-comments.xls>

* 1. Comment Resolution:
     1. Adrian has an updated file for use to use 11-12/1082r3 as needed
        1. There is a new D0.4 that is on the server in the members area
        2. A new planning set of details available.
     2. Dorothy requested everyone to download the updated spreadsheet and noted that we should look at D0.4 and we will discuss it next week along with the timeline plan as well.
     3. Give presentation control to Mark H. and he brought up the MAC comment database for discussion:
     4. CID 39
        1. Review comment
        2. IEEE Style guideline shows only one page number on a page
        3. Editor to work to ensure that the page numbers are aligned
        4. Proposed resolution: Revisied – Editor is requested to ensure the pdf page numbers are aligned. – The IEEE Style guide prescribes only one page number per page.
     5. CID 341
        1. Review Comment -- IANA IKEv1 reference.
        2. Suggest that we decline this as our liason with IETF has added the missing info to the new RFC.
        3. Proposed Resolution: Reject: Rejected. Per liaison 11-12/0977r0, the additional parameters will be added to the IKE v1 registry. So the reference to RFC 2409 is still valid.
     6. CID 212
        1. Review comment: What is “MFP”
        2. Editorial comments should be handled initially by the Editor,
     7. CID 38
        1. Review comment:
        2. This has been there for a long time
        3. The term Area can be a general term, i.e. the area west of the Mississippi.
        4. Many examples of the use of “Area”.
        5. Regulators use “Area” - Range or Scope, not as a geometric term.
        6. Basic Service Area is defined by 802.11.
        7. Proposed Resolution: Reject: We call out networks as Local Area Networks or Metropolitan Area Networks. The dictionary says that the word “Area” can mean a range or scope. Regulators use Area, and not other terms for boundaries.
     8. CID 301
        1. Review Comment:
        2. There is only a small note on page 25, and in the SDL, but no other mention in the spec.
        3. No other objection.
        4. As an industry term, we do see it in use.
        5. There is a claim that a frame format for WDS is defined.
        6. The use of the 4-address format for WDS uses.
        7. Note that the new GLK group would have an opinion on this topic also.
        8. Straw Poll:
           1. Should we remove the term WDS?

Results: Yes – 3 No – 3 abstain - 1

* + - 1. There is only a definition of “Wireless Distribution” in one place in the spec.
      2. If we remove all the obsolete and the SDL, then it would go away anyway.
      3. We should leave the definition for now, and allow the new TGak to look into it.
      4. **ACTION ITEM**: CID 301- Jon to talk to Donald Eastlake about his interest on this topic.
      5. Look at page 122 – another Definition example of term defined but not used “Unreachable star”.
    1. CID 74
       1. Review comment.
       2. Do we agree in general to add a table somewhere?
          1. No objection
       3. **ACTION ITEM:** CID 74- Jouni to look at creating a table in a submission.
       4. Assign Comment to Jouni for submission.
    2. CID 323
       1. Review Comment
       2. Relates to CID 218
       3. The use of Sleep is in TDLS. – how STAs use AP to get info when asleep.
       4. The use of Sleeping may not be incorrect.
       5. We use doze and sleep with lots of ease.
       6. 10.2.1.18.1 – sleep is part of the WNM
       7. 4.3.13.1 lists the features that were added by WNM, and so it is here.
       8. What is being managed? Is the real questions.
       9. Many of the WMN management functions only manage point to point communication.
          1. They only manage STA to AP or some other Point to Point functionality
       10. The AP is managing and doing work for the STA which allows the STA to Sleep.
       11. The number of actual things that WNM-Sleep does is numerous, and so after we resolve some of those issues, then maybe a new name may be an outcome.
           1. Filtering, and buffering etc is still only point to point management.
       12. Radio Management implemented is required to get many of the WNM features.
       13. Changing the name was thought to loosing meaning.
       14. Proposed Resolution: Rejected. WNM-sleep mode is dependent on a device's support of the mandatory WNM features. And it enables a STA to sleep for extended periods of time, and this is clearly related to "sleep".
       15. There was an objection to the rejection.
       16. There are many features in the WNM-Sleep that don’t seem to address sleeping.
       17. Request for CID 96 to be included – no this will be part of the request to PHY panel of experts (open invitation to be sent to the reflector) to discuss before we discus it on a conference call.
    3. CID 213
       1. Review comment
       2. (see note from Mark Hamilton)
       3. Should we allow this.
       4. More time may be needed to look at this.
       5. How this is used in practice and in other definitions needs to be reviewed.
       6. **ACTION ITEM:** CID 213-Mark Rison assigned to research this issue further.
          1. Other Comments that are related: CID 263, 314, 324,
    4. CID 79
       1. Review Comment :
       2. There was an offline discussion that worked to improve the proposed resolution.
       3. Initial Proposed Resolution: Add a new paragraph after the third paragraph of 10.2.1.2:”An AP shall always assume a non-AP STA's Power Management mode is Active upon Association, or Reassociation from another AP, and the non-AP STA shall operate per the Active mode until it can inform the AP of a mode change. The STA's mode shall also be Active in relation to any AP with which it is not associated. Reassociation to the same AP shall not change the Power Management mode of the non-AP STA.”
       4. 10.2.1.1 – the change of the mode needs to be communicated.
       5. If the STA is not associated then it cannot use PS mode.
       6. A STA that has transmitted a management frame to an AP that it is not associated from which it expects a response shall remain in the Awake state until such a response is received, or until the procedure has timed out.
       7. All of the main frames being sent are part of a management frame exchange.
       8. The new Beacon variant and beam forming that are extended control frames.
       9. If we drop the “management” from the suggested sentence, then it would still be correct and may be clearer in the end.
       10. Trying to get rid of the word “Assume” should be done.
       11. Change where the SHALL is in the new paragraph.
       12. There is also a similar comment in CID 257.
       13. Reassociation to the same AP you do not want to have to go in and out of ACTIVE mode?
       14. Working on what the proper action took some time.
       15. Deleting the text about the Reassociation was thought to be the simplier definition.
       16. Can we add a note for the FP case?
           1. No consensus to add any note.
       17. Proposed Resolution: Add a two new paragraphs after the third paragraph of 10.2.1.2:”A non-AP STA shall be in Active mode upon Association, or Reassociation

A STA that has transmitted a frame to an AP with which it is not associated and from which it expects a response shall remain in the Awake state until such a response is received or until the procedure has timed out.”

* + - 1. Comment marked ready for motion.
    1. CID 145
       1. Review comment:
       2. **ACTION ITEM:** CID 145-Mark RISON to submit a proposal
    2. CID 49
       1. Review Comment:
       2. See CID 308
       3. We could also set DTIM Period to be reserved.
       4. The new sentence sets the DTIM Count field as reserved.
       5. We will allow other groups to test to ensure that we don’t have any issues.
       6. The DTIM Period value is still useful and we should keep it in there.
       7. A draft of the Proposal was started.
       8. Draft Proposed resolution: Revised: See CID 308. The DTIM Period value is still useful, and we can keep it here. Add a note that the DTIM Period is independent from any TIM Broadcast Interval(s).

Note – The DTIM Period carried in a TIM element in a TIM frame could be unrelated to any TIM Broadcast Intervals.

* 1. Proposal for next week:
     1. Look at the schedule
     2. For comments resolution, Mark and Jon are to solicit more input from others as possible.
     3. Note that Mark R. is changing affiliations, and may not be available on the call next week.
     4. Need to preannounce the comments that are targeted for the call identified a couple days ahead.
     5. Need to have people look at the PHY comments and a call to focus on that topic will be determined.
     6. **ACTION ITEM:** Dorothy/Mark H. – To Send A list of about 8 comments that need the PHY group to review and provide input for resolutions.
  2. Adjourned 12:00 ET.

1. Minutes for Oct 5th teleconference:
   1. Meeting called to order 10am ET by Dorothy Stanley, Aruba Networks.
      1. Review Patent Policy
         1. No items noted
      2. Attendance: Dorothy Stanely, Aruba Networks; Jon Rosdahl, CSR; Mark Hamilton, Polycom; Edward Au, Huawei; Peter Ecclesine, Cisco; Mark RISON, Samsung; Adrian Stephens, Intel.
   2. Review agenda

1. Call to order, patent policy, attendance

2. Editor Report

3. Comment resolution - CIDs listed

- Discuss and resolve (needs discussion):

213, 305, 329, 331.

- Identify resolution direction and volunteer who will develop proposed resolution:

30, 50, 58, 80, 131, 324, 336, 343, 365.

- Discuss and resolve (hopefully straightforward):

49 (finish, from last time), 6, 14, 354, 48, 83, 214, 286, 330, 337, 344, 348, 351.

If you are not able to make the call, but want to work on one of these comments, or have an opinion on direction, please respond to this mail, or let me know your input.

4. Schedule, see <https://mentor.ieee.org/802.11/dcn/12/11-12-1203-01-000m-revmc-shedule.docx>

5. Plan for next call(s) Oct 12, 26, Nov 2, AOB

6. Adjourn

7. Reference: <https://mentor.ieee.org/802.11/dcn/12/11-12-1082-04-0000-revmc-pre-ballot-comments.xls>

* 1. Editor Report –
     1. There are 28 comments that need feedback on the reflector or directly.
     2. Next week on the 12th the Editor will review these comments
  2. Review Discuss and resolve MAC Comments:

CIDs: 213, 305, 329, 331.

* + 1. CID 213 –
       1. Mark Rison has action to come back with feedback. – Mark was not on the call at the time.
    2. CID 305
       1. Review comment
       2. Search on ANQP-Element to find issue.
       3. Where do we describe the query?
          1. See 10.24.3.2.1
       4. Reverences to the where this is defined.
       5. There may not be so many vague ones that we may be able to fix this with a submission. Make the references consistent as well.
       6. AdHoc notes: MAC: 2012-10-05 14:15:05Z - Consider clarifying all "ANQP Query" (without further adjective) to be explicit. Need help from Dave Stephenson. Peter E will follow up.
       7. **ACTION ITEM** CID 305– Peter E to come back with a submission.
    3. CID 213
       1. Mark R. joined the call
       2. Mark R. indicated that he would withdraw the comment.
       3. Commenter said it refers to a different spec.
       4. Proposed resolution: Reject – withdrawn on TGmc Oct 5th Telecon.
    4. CID 329
       1. Review comment
       2. Need to check with some security experts and how the use of a key that was supposed to be expired seems like a security risk.
       3. This could be 18 hours.
       4. Proposed Resolution: Reject – MAC: 2012-10-05 14:21:37Z - Propose decline. The non-AP STA deletes the GTK to remove any possibility of using the expired key. Dorothy to confirm with Jouni.
    5. CID 331
       1. Review Comment
          1. 10.23.6.3 first paragraph seems to apply.
          2. No changes seemed warrented.
          3. Request for more clarification does not seem needed.
       2. Proposed Resolution: MAC: 2012-10-05 14:21:37Z - Propose decline. The non-AP STA deletes the GTK to remove any possibility of using the expired key. Dorothy to confirm with Jouni.
       3. from Mark Hamilton to Everyone:
       4. REJECTED (MAC: 2012-10-05 14:27:23Z):10.23.6.3 first paragraph says, "The AP may transmit a group addressed BSS Transition Management Request frame to associated non-AP STAs if …" so clearly this text is written as if such a group addressed frame should be considered as sent "to (a) non-AP STA(s)". Thus, the text at the top of P1134 does apply.That paragaph goes on to say, "When the BSS Transition Management Request frame is transmitted as a group addressed frame, a receiving non-AP STA shall not respond with a BSS Transition Management Response frame." so the individual STAs can not reply with a request for delay.The net result of this particular scenario is that all STAs are notified of the termination, and none are given an opportunity to reject it outright or request a delay.No change was specifically requested, and the existing text is sufficiently clear.
  1. Identify resolution direction and volunteer who will develop proposed resolution:

30, 50, 58, 80, 131, 324, 336, 343, 365.

* + 1. CID 365
       1. Review Comment
       2. Proposal - Revised – Change “Element” to “field” at the cited location.
       3. Check page 1117 see 10.22.6.2.1
          1. Seems that element to field may be correct change
       4. Check clause 8.5.13.7 on page 773.
          1. The operating class is a field.
          2. Same thing with secondary channel offset it is a field.
          3. The action is to change element to field in both dashed lists.
       5. Proposed Resolution: REVISED (MAC: 2012-10-05 14:35:49Z): Change "element" to "field" at the cited location. Also change "Secondary Channel Offset element" to Secondary Channel Offset field" in the same list.
    2. CID 30
       1. Suggestion to get Adrian to help with wording.
       2. **ACTION ITEM:** CID 30-Assign to Adrian for new wording.
    3. CID 50
       1. Similar to CID 312
       2. **ACTION ITEM:** CID 50-Assign to Qi for submission – she is already assigned CID 312.
    4. CID 58
       1. Review Comment
       2. There are many places that need to be checked to make sure we are consistent that need to be fixed.
       3. Mark Rison sent an e-mail to Mark Hamilton with many of the most needed corrections..
       4. There are some more that need to be checked.
       5. The use of Mandatory is sometimes an noun and those may be ok.
       6. Let’s star with the ones that Mark R has identified
       7. **ACTION ITEM:** CID 58-Mark H. to get list of “Mandatory” instances and prepare resolution from set of changes identified from Mark R.
    5. CID 80
       1. Review Comment
          1. Update the Figure is necessary.
          2. The text and figure should match
          3. Discussion of the diagram
          4. Do both the AP and the Non-AP STA switch back to state 2 for an unsuccessful Re/Association attempt from State 3?
          5. Review of page 1017 and 1018.
          6. Maybe the title of the figure could be adjusted to make what the diagram is depicting. By adding:”between a given pair of non-mesh STAs”
          7. The deleted arrows are for successful completion of authentication should not change the state if you are in a higher state.
       2. Proposed Resolution: REVISED (MAC: 2012-10-05 15:05:02Z): Update Figure 10-6 by deleting the arrow and label from State 3 to State 2 upon successful 802.11 Authentication, and the arrow and label from State 4 to State 2 upon successful 802.11 Authentication.Also change the title of Figure 10-6 to add "between a given pair of non-mesh STAs"
    6. CID 131
       1. Review comment
          1. Need for change was not strong.
          2. There are 3 MIB variables for ProbeDelay.
          3. dot11RMMeasurementProbeDelay, dot11TDLSProbeDelay, and ProbeDelay. With three points the standard is not consistent.
          4. Setting the Probe Delay in one place may be better.
          5. Group with 132 and CID 36.
          6. These Three CIDs should be worked in harmony.
       2. **ACTION ITEM::** CID 131- Assign Mark Rison, Mark Hamilton, Brian Hart and someone from the “it should be zero” camp) to work on final wording. Note: This topic may take more time than we will want to take for this round of commenting to gain consencuse. We need a strong consensus in order to make a change in this area.
       3. Move CID 132 and 36 to MAC Comment Group for ease of processing.
    7. CID 324
       1. Qi is working on this along with CID 263 and 314.
       2. **ACTION ITEM**: CID 324-Qi to include CID 324 with 263 and 314
    8. CID 336
       1. Review Comment
       2. Need Submission for sure
       3. There was some objection to having multicast response to GAS.
       4. There is another CID that is similar in nature.
       5. From Peter E: We definitely do NOT want GAS response to be multicast/broadcast. There is no L2 ack and support for GAS fragmentation would be a nightmare. Its sort of ridiculous anyway, because what are the odds that another STA would be awake at the random time the AP sends the response? If we want a way to multicast a GAS response, then IMO we should bring the GASTIM beacon approach that was originally in the draft,
       6. This may be better addressed in TGai. – Suggestion to have commentor take the issue up with TGai.
       7. So we can make a request for submission, but where it is presented and addressed is the debate.
       8. **ACTION ITEM:** CID 336- Submission needed from Stephen – need to determine if we want to address here or in TGai later. (Suggest Stephen contact Dave Stephenson)
       9. Proposed Resolution: REJECTED (MAC: 2012-10-05 15:29:44Z): Concerns raised with the proposal include: There is no L2 ack and support for GAS fragmentation would be complex. Concern that another STA would be awake at the random time the AP sends the response. The GASTIM approach proposed in TGu could be applicable. Note, TGai is looking at technical solutions for high-density, rapid discovery, this proposal may be applicable there..
    9. CID 343
       1. Review comment
          1. It is vaque, but more help in clarifying the text would be needed.
       2. Would like to find a volunteer to help with wordings.
       3. A more specific declaration could be made to make it easier to understand which channels are “affected”
       4. The intent of the original wording was questiond.
       5. Proposed Resolution: REVISED (MAC: 2012-10-05 15:42:34Z) Add to the end of the first sentence of 10.15.5, "i.e., the 20 MHz channels that wholy or partly overlap the 40 MHz signal."
  1. Discuss and resolve (hopefully straightforward):

49 (finish, from last time), 6, 14, 354, 48, 83, 214, 286, 330, 337, 344, 348, 351

* + 1. CID 6:
       1. Review Comment:
          1. Not seeing any problem with how it is.
       2. Proposed Resoluion: REJECTED (MAC: 2012-10-05 15:45:21Z) While it is implied that an individually addressed BU results in an individually addressed ATIM with the same address, it is not explicitly said anywhere except this sentence.
    2. CID 14:
       1. Review Comment.
       2. The sentence may have been missing due to an editing error.
       3. Suggestion that the sentence be modified to be consistent with RDE as well.
       4. Proposed Resoluion: REVISED (MAC: 2012-10-05 15:48:17Z) Add the sentence at the cited location (add "In an AP whendot11SSPNInterfaceActivated is true, the HC shall set the dot11NonAPStationAddtsResultCode in the non-AP STA’s dot11InterworkingEntry equal to the ResultCode." to the end of the 7th paragraph of 10.4.4). Also, add the sentence, "In an AP whendot11SSPNInterfaceActivated is true, the HC shall set the dot11NonAPStationAddtsResultCode in the non-AP STA’s dot11InterworkingEntry equal to the Status Code in the corresponding RDE." to the end of the 4th paragraph of 10.4.5.
    3. CID 354
       1. Review comment
       2. Propose we reject the comment.
       3. Proposed Resolution: REJECTED (MAC: 2012-10-05 15:50:02Z) While it is true that the Timing Measurement procedure could be used while not associated, no use case is provided to compel doing this. Further, since only the non-AP STA could know that both peer STAs (AP and non-AP) are dot11MgmtOptionTimingMsmtActivated=true (by monitoring Beacons), it would have to be the non-AP STA that initiates the procedure. This means the AP would need to generate periodic Timing Measurement frames, thus consuming long-term resources on the AP to remember the procedure is active. Typically, APs should not be required to dedicate any resources to non-associated STAs, unless there is a strong need for it.
  1. We were at 10 minutes, move to Adrian’s doc 11-12/1203r2
     1. Review the document:

<https://mentor.ieee.org/802.11/dcn/12/11-12-1203-02-000m-revmc-shedule.docx>

* + 1. Review the 3 options
    2. No decision today, but wanted to get people to look this over and in November we may or may not go to ballot, but we will make decision then.
    3. Question/Discussion on the point that TGac is being added late in the process.
       1. If we add it late, it does not get the same review cycles that other parts are done.
       2. If we added it during the WG LB phase, we would definitiely have to delay our timeline.
       3. Getting changes for TGac in TGac seems to be the right point.
       4. And getting 3 chances to make comments vs 4 may not be that much of an issue.
       5. Major fixes shoulreally be done in the amendment processing time.
  1. Next call
     1. Continue where we left off and then start Editor,
     2. On the 26th we will start on the GEN comments.
     3. Thanks for those that are working on resolutions.
     4. **REMEMBER** that there are more comments that are not listed, and we need review of them as well.
  2. Adjourn at 12:03 pm ET.

1. Minutes for Oct 12th teleconference:
   1. Meeting called to order 10:05am ET by Dorothy Stanley, Aruba Networks.
      1. Review Patent Policy
         1. No items noted
      2. Attendance: Dorothy Stanely, Aruba Networks; Jon Rosdahl, CSR; Mark Hamilton, Polycom; Jouni Malinen, Qualcomm; Peter Ecclesine, Cisco; Adrian Stephens, Intel; Mark RISON, Samsung, Edward Au, Huawei.
   2. Review agenda

Agenda:  
1. Call to order, patent policy, attendance

2. Editor Report  
3. Comment resolution - CIDs listed below:

- MAC - Discuss and resolve (hopefully straightforward): 49, 48, 83, 214, 286, 330, 337, 344, 348, 351.

- Editorial "Discuss" comments: 97, 98,100, 220, 202, 190, 193, 192, 203, 15, 137, 139, 141, 168, 366, 194, 154, 115, 130, 135.

140, 276, 156, 217, 232, 236, 240, 249, 253, 254, 259, 272,274

4. Plan for next call(s) Oct 26, Nov 2

5. AOB  
6. Adjourn  
7. Reference:[https://mentor.ieee.org/802.11/dcn/12/11-12-1189-04-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls](https://mentor.ieee.org/802.11/dcn/12/11-12-1189-03-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls" \t "_blank) and   
<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-04-0000-revmc-pre-ballot-comments.xls>

* + 1. Agenda approved without objection.
  1. Editor Report:
     1. There is a a D0.5 that is nearly ready to review.
     2. Need to review the comments today to prepare for the review.
  2. Comment resolution -- MAC - Discuss and resolve (hopefully straightforward): 49, 48, 83, 214, 286, 330, 337, 344, 348, 351.
     1. **ACTION ITEM:** Assign to Carlos 46,47, 48 and 354 (duplicate of 48) he will bring a presentation on Oct 26.
     2. CID 49:
        1. Review comment
        2. Suggest that we better describe what is in the TIM element.
        3. Would we want to relate to the proper “period” ? – the period between DTIMs.
        4. Proposed Resolution:Revised: Add a note:NOTE - The DTIM Period subfield in a TIM element in a TIM frame indicates the period for DTIM Beacon frames, and is unrelated to any TIM Broadcast Interval(s).
     3. CID 83:
        1. Review comment
        2. When should (re)associate be more appropriate than reassociate?
        3. Proposed Resolution: Accept.
     4. CID 214
        1. Review Comment
        2. We thought that there was a problem with 10.2.2.5 e) and g) in that an ATIM is a Management frame, but there was wasn’t.
        3. Proposed Resolution: REVISED (MAC: 2012-10-12 14:26:38Z): Change "using the conventional DCF access procedure" to "using the DCF (for non-QoS STAs) or the EDCAF (for QoS STAs)."
     5. CID 286
        1. Review Comment
        2. Need to revise to add a second definition update.
        3. Concern that this should not be a channel change issue, but rather a channel width change issue. You can move the channel around, but you should not change the width. And you should not change the secondary channel offset either.
        4. This was discussed at length during the 11n days, and so the position was that the IBSS was marginily interesting, but rather it should not ever allow the channel to change due to the problem of DFS owners of the different bands. So the intention is unabigious and clear that changing the channel should not be allowed.
        5. Proposed Resolution: REJECTED (MAC: 2012-10-12 14:31:08Z): The restriction in the text is intentional, per discussions in TGn. It is intentional to require an IBSS to keep the same channel width (and offset), even across a (primary) channel change. Thus, a DO can change the primary channel, but cannot change the SCO.
     6. CID 330
        1. Review the Comment
        2. Proposed Resolution: Accept
     7. CID 337
        1. Review the Comment
        2. Peter E has a submission 12/1230 for a case for rejection.
           1. Proposed Resolution: Proposed resolution: Rejected – In 802.11-2012, clause 10.24.3, the 3rd paragraph states that " GAS shall be supported by a STA when dot11InterworkingServiceActivated is true. ANQP shall be supported by a STA when dot11InterworkingServiceActivated is true."
           2. This seems to be a different issue, and is related to another CID instead.
           3. In 10.24.3.2.1 has a single sentence paragraph, and so may be the place to put this orininal proposed text.
           4. There seems to be two different issues, so we need to look at this comment and then take up the other issue later.
        3. ANQP can be used between AP, so the change may actually limit use cases. Some want to reject the comment because of the conflict.
        4. Review the context of the draft again.
        5. The comment is ok, but the resolution needs more definition to include the case from the AP. We want to not preclude this exchange to occur between two non-AP STAs. We do not want to address the IBSS case here.
        6. Proposed Resolution: REVISED (MAC: 2012-10-12 14:41:41Z): Add this text as a new paragraph after the first paragaph on 10.24.3.2.1: "Non-AP STAs shall not transmit an ANQP Query to an AP for any ANQP-element unless the ANQP Advertisement Protocol ID is included in the Advertisement Protocol element in a Beacon or Probe Response frame from that AP."
     8. CID 344
        1. Review the comment
        2. Proposed Resolution: REVISED (MAC: 2012-10-12 14:49:22Z): Change the title of 10.15.3 to "Channel scanning and selection methods for 20/40 MHz operation"
     9. CID 348
        1. Review the comment
        2. Proposed Resolution: REVISED (MAC: 2012-10-12 14:52:08Z): Add in the 4th paragraph of 8.4.2.60, after the first sentence, "If the operating class is "unknown" as described in 10.15.12, the Operating Class field is set to zero."
     10. CID 351
         1. Review the comment
         2. It may be the order of how things are presented is the underlying issue.
         3. Proposed Resolution: REVISED (MAC: 2012-10-12 14:55:29Z): The Active scanning procedure being referenced in this section, is that introduced in 10.1.4.1, and described in detail in 10.1.4.3.3; that is, the procedure at the STA where the MLME-SCAN.request primitive was issued (not at the AP). Thus, the procedure discusses sending Probe Requests, and receiving Probe Responses. Thus, the commentor's proposal is not correct.However, it is confusing that 10.1.4.3.2 (which is AP action) comes in the middle of this - move it to after 10.1.4.3.3.
  3. - Editorial "Discuss" comments: 97, 98,100, 220, 202, 190, 193, 192, 203, 15, 137, 139, 141, 168, 366, 194, 154, 115, 130, 135. 140, 276, 156, 217, 232, 236, 240, 249, 253, 254, 259, 272,274
     1. CID 97
        1. Review comment
        2. From the Editor:

EDITOR: 2012-10-01 10:52:30Z - Agree with the perception of confusion.

The IEEE-SA dictionary propages the confusion because it defines the term both ways (i.e., MAC Management PDU, and Management MPDU).

The concept of MMPDU is very weak in our document, largely because there is generally, in practice, a 1:1 mapping from MMPDUs to MPDUs (i.e., fragmentation is rare). They are talked about as though they were MPDUs, i.e., the "subtype" of an MMPDU, and their structure is shown in the context of "frame formats". This is all horribly wrong.

Changing terminology might go some way to improving this matter. However, we are restricted by convention to using <x>PDU, and arguably <x>MPDU. Perhaps MM-PDU is clearer.

We also have other work. At the least we could add a new clause 8 subclause ("MM-PDUs") that says:

1. The MM-PDU is described in terms of the contents of a frame body of an MMPDU (i.e., a frame). However, the MM-PDU might be transmitted in fragments, in which case the MM-PDU is fragmented and transported in multiple management MPDUs.

2. References to the "receiver address" of an MM-PDU relate to an anonymous parameter associated with the MM-PDU, which is copied into the receiver address of the management MPDU(s) used to transport it.

3. Ditto for all other MPDU header fields.

Additionally (it might be alternatively, I'm not sure), we could move move of 8.3.3 into a new subclause MM-PDU formats and replace all references to frame body with MM-PDU and frame with "management frame carrying the MM-PDU". Plus some changes in 8.4 for consistency.

This is, of course, a lot of work and will result in a lot of changes.

* + - 1. Question on the MSDU, they are well defined.
      2. Having the ARC group redraw the Diagram to show where the MMPDU really exist.
      3. We should not be restricted to “something PDU”, but we should try to keep the issues separate. Does this confusion really come from the poor use of MMPDU vs MM-PDU and MPDU etc.
      4. CID 98 and 97 are similar, one is about what we call it and one is whether it is a frame or not as apposed to a Protocol data unit.
      5. We have three potential options:
         1. 1. Replace MMPDU with MM-PDU throughout.
         2. 2. Replace MMPDU with MMDU
         3. 3. Do nothing
         4. MAC management protocol data unit (MMPDU) is NOT the same as management MAC protocol data unit (Management MPDUs/frames).
      6. We should first agree that a change is warrented, then we can work on what the best name is, and it may be different from what is here now…and we can discuss this on the 26th.
      7. Strawpoll:
         1. A - Change the name of MMPDU
         2. B – reject the comment, don’t change the name
         3. Results: A – 4; B-2; Abstain – 2
         4. Some indication for change, but not overwhelming and we need to get some commitment.
      8. **ACTION ITEM**: Adrian, Mark H. and Mark R. to try to get together on a new name to propose for discussion on the Next call Oct 26th.
    1. CID 98
       1. Pending the previous Action Item.
       2. It is related to the outcome of CID 98
    2. CID 99
       1. Review comment
       2. Proposed Resolution From the Editor:

REVISED (EDITOR: 2012-10-01 13:31:43Z) - Change any "response" to "Response" in Table 8-1.

Change any "request" to "Request" in Table 8-1.

Change any "request frame" to "Request frame" where "Request" forms part of the name of the frame. Correct capitalization of the preceding part of the name, as necessary.

Change any "response frame" to "Response frame" where "Request" forms part of the name of the frame. Correct capitalization of the preceding part of the name, as necessary.

Editor's note emplaced at 1248.15 "Note there is no such thing as an “EAPOL-Key request frame”"

Change "authentication request frame" to "Authentication request frame"

Change "authentication response frame" to "Authentication response frame"

at 1043.10 change "deauthentication" to "Deauthentication".

At 1043.15 change “deassociation” to “Disassociation” 🡨New

at 436.40 change "action" to "Action"

at 1370.01 change "action frame" to "frame"

at 2309.05 change "control wrapper" to "Control Wrapper"

* + - 1. “ EAPOL\_key frame” is really not a frame but a 802.1X packet. If we do not change it now, a new comment will most likely come later.
      2. In 802.1X they are called frames, but we should change to some “packet” form of description.
      3. The easy way would be to change “EAPOL\_Key frame” to “EAPOL\_Key packet”
      4. **ACTION ITEM**: Jouni to take some time to research and provide a proposal for the usage of the “EAPOL\_Key frame”’ name issue.
      5. EDITOR: 2012-10-12 15:24:56ZJouni volunteered to resolve: Editor's note emplaced at 1248.15 "Note there is no such thing as an “EAPOL-Key request frame”"Perhaps add "802.1X" in front of such things. Or change "frame" to "packet".
      6. Need to add “at 1043.15 change "deassociation" to "Disassociation" <-- NEW” to the above resolution (note that the proposed resolution was edited).
      7. Question about “authentication frame” useage. The first check came with SDE authentication frame, and so the authentication frame is a more loose term rather than a precise term.
      8. **ACTION ITEM:** Mark R to send lists of other inprecise usage of authentication frames to reflector.
         1. EDITOR: 2012-10-12 15:31:31Z - Action: Mark R to review uses of authentication in this resolution.
    1. CID 100
       1. Review comment
       2. From the editor:

EDITOR: 2012-10-01 13:28:46Z - Our general pattern is that we should have the name of the frame in initial caps, as it is being used as a proper noun (albeit in the context of an adjective).

So "Public Action frame" is right.

But we have a lot of counter examples. "data frame" (346 instances), "management frame" (438 instances), control frame (80 instances).

I have made the change for "Management". Any rule that does not end up with all Initial caps or all lower caps creates apparent conflict. For example in the proposed change: "manangement frame bodies" and "the Frame Body fields of Management frames". Should the former be "Management frame bodies", "Management Frame bodies", or even "Management Frame Bodies"? I think not.

To discuss: I made changes for "management frames". Should we also make changes for "data frames" and "control frames"?

* + - 1. There are about 600 changes related to this, and so this is somewhat subjective. So these changes would need to make sure that the context that is used in determining if the change should be used, and if it should be done in context of the “data frames” etc.
      2. If the full set of names is the noun, then upper case is appropriate, but when it is an adjective, then it should not be uppercased.
      3. If we make this proposed change “Change all "<name of frame> [action] [management] frame" to "<name of frame> frame", excluding the term "time priority management frame".” Then this should be included in the 802.11 Style Guide and apply it to data frame as well.
      4. We should allow Data and Control discussion to occur before we make this change, and so we will hold this open for a future call.
      5. The chair asked if this was going to be a significant work item that would delay us, or would it be reasonable, as there is other items that seem more important.
      6. The editor has already done the frame issue, but the Data and Control are still pending. We can make the capitilastion consistent and deal with the interreptation separately.
      7. So should the editor make the similar changes to Data and Control.
         1. No objection, so the Editor will go and look to make it more consistent.
      8. **ACTiON ITEM**: Adrian to check for similar changes as required in CID 100 for Data and Control consistencies.
    1. CID 220
       1. Review comment
       2. From the Editor:

EDITOR: 2012-10-02 13:32:21Z

The term Key ID is used as follows:

1. as an MLME parameter

2. as part of a field (560.20) name

3. as an entire field name (598.20, 1167.55)

4. as part of the name of a KDE (1249.50)

The term KeyID is used as follows:

1. As the entire name of a field (598.50, 603.50, 790.40 ...)

2. As part of the name of a MIB variable (1168.20)

3. As part of the name of a field (1194.15)

4. As a signal into the CCMP block (1207.15)

The only obvious inconsistency is at 603.60 and possibly 1207.15.

There are 30 Instances of KeyID and 88 of Key ID.

Question: should we address only the inconsistencies, or should we eliminate one of these terms?

* + - 1. Given that we recognize Jouni as the expert…
         1. He does not see the reason for the name of “fields” to be the same.
      2. In general field names we use spaces between names, so all the field names should have a space, then most of these inconsistancies may go away.
      3. Renaming all field names to have a space may be a consistent usage.
      4. Proposed resolution: Change all KeyID to Key ID except where used as part of the name of a MIB variable. & fix case in figure 11-17 (KeyId -> “Key ID”)
    1. CID 202
       1. Review comment
       2. From the editor:

EDITOR: 2012-10-03 12:52:06Z - The commenter does not indicate what to do.

We cannot delete the cited statement, because it covers more than Table 8-284, i.e., it covers the other contexts. Table 8-286 carries no such information.

So the only safe thing to do is remove the statement from table 8-284, or turn it into a note.

* + - 1. Proposed Resolution: REVISED (EDITOR: 2012-10-03 12:55:03Z) - at 816.15, turn: "These MPDUs all have the Ack Policy field equal to the same value, which is either Implicit Block Ack Request or Block Ack." into a table NOTE--.
  1. Next Call is week after next -- Oct 26.
     1. Carlos is scheduled (46-47-48 and 354)
     2. Continue with Editorials
  2. Other issues:
     1. The chair has issed a request for experts to assist on PHY comments. We have had a request for volunteers and Matt F and Vinko have agreed to work on them, and they are expected to have a proposal by 7th of Nov, and we will plan to discuss on the Monday of the Plenary Session.
        1. We want to be able to look at potential issue during the week.
        2. Adrian voluntees Eldad to also volunteer.
  3. Adjourned 12:02pm ET.

1. Minutes for Oct 26th teleconference
   1. Meeting called to order at 10:05am ET by the Chair, Dorothy Stanley, Aruba Networks.
      1. Review Patent Policy
         1. No items noted
      2. Attendance: Dorothy Stanely, Aruba Networks; Jon Rosdahl, CSR; Mark Hamilton, Polycom; Jouni Malinen, Qualcomm; Carlos Aldana, Qualcomm; Adrian Stephens, Intel; Mark RISON, Samsung; Qi Wang, Broadcom;
   2. Review Proposed Agenda

1. Call to order, patent policy, attendance

2. Editor Report

3. Comment resolution - CIDs listed below:

- MAC - Carlos Aldana (submission to be posted) - 46, 47, 48, 354

- Editorial - 190, 193, 192, 203, 15, 137, 139, 141, 168, 366, 194, 154, 115,

130, 135, 140, 276, 156, 217, 232, 236, 240, 249, 253, 254, 259, 272,274

4. Plan for next call(s) Nov 2

Nov 12: Vinko Erceg - CIDs 45, 66, 299, 355

Nov 12: Matthew Fischer - CIDs 40, 43, 56, 96

5. AOB

6. Adjourn

7. Reference: <https://mentor.ieee.org/802.11/dcn/12/11-12-1082-05-0000-revmc-pre-ballot-comments.xls>

* + 1. Agenda approved without objection
  1. Editor Report:
     1. Adrian has a submission for 70 of the GEN Comments (Gen AdHoc Leader says Thanks).
     2. Call for Reviewers – Mark R, Mark H, Jon R, Dorothy S.
     3. Approx 2 hours next week needed.
  2. Comment Resolution
     1. MAC - Carlos Aldana - 46, 47, 48, 354
        1. Review Doc 11-12/1249r0
        2. Error noted in 6.3.68 – there is a missing “Vendor Specific “ part in the element.
           1. This should be corrected. We noted it in the minutes, and will have to apply it to an comment CID?
           2. Request to get the missin Vendor Specific parameter in the request as well.
           3. Trigger bug also noted:

Fix bug in baseline re missing Vendor Specific parameters in SAP for measurement request frames.

* + - 1. Noted that for this proposal, a requirement for the same RX chain, but not required for Baseline. Changing the base could make existing devices non-compliant, so we would not require the change in the baseline.
      2. What the rational/motivation for doing the work needs to be added to the proposal.
      3. Look to see what the feasibility of the proposal of the 10 ns vs 1ns. Need to capture the rational in the document.
      4. Did you want a protected Dual of this?
         1. Protected Dual is a special case of Public Action frames that protects the frames. There are identical frames specified, and then a duplicate that is protected.
         2. ProtectedDual is a based on the assumption that you have a shared protected Key.
         3. You could use this for the existing method, but not always.
         4. Cannot think immediately of how you would be using this while maintaining a shared key when not associated to an AP.
         5. The Security part is also a concern. Can you still capture the timestamp?
         6. When it is authorized is a question to be resolved.
         7. If we are talking about a new security method, then this would be definitely too much for us to want to take on here. The scope of this may be more than we normally want to take on in maintainance as is.

The chair noted that we do want to be careful, but that this may be sufficiently an exention of existing features that have been vetted, and so may not be too much.

* + - 1. The Chair will look to put on the Agenda for Tuesday (13th) TGmc meeting slot.
      2. An update to the document will be posted as R1,
         1. Note that motivation, and explaination of why the existing mechanism is not noted.
         2. Note the color scheme to understand what is new/change/modified.
         3. If we can use both the Word change facilities as well as color coding to determine the changes todraft vs changes to the document.
    1. CID 99
       1. Old Action items were started to be addressed:
          1. Input from Mark R was received, and added to the proposed Resolution.
          2. Input from Jouni was also added to the proposed Resolution was received and a a mapping was made to clarify the text. And was added to the proposed Resolution.
       2. EAPOL-Key frame VS EAPOL-Start frame are the main issues being addressed.
       3. The EAPOL frames are data frames
       4. Are we going to add text to address the 802.1X implications?
          1. We do refer to the 802.1X that defines the frames.
          2. Do we want to continue to use the word frame in this context?
          3. This is a bit different from how the rest of the draft uses frame.
          4. Question on why it was change from message to frame?

Less changes to go from message to frame

* + - * 1. We have been careful in the useage of “frame” and here we are adding to the inconsistency.
      1. In Section 3, we have a definition of IEEE 802.1X authentication (page 13).
         1. Add a sentence: “EAPOL frames are part of the 802.1X protocol.”
      2. We could look to add in Clause 8, but this seems to be an 802.11 MAC frame format, and may not be the right place.
      3. **ACTION ITEM**: Mark H to research making a conventions/definitions statement consistent with the proposed changes from Jouni for CID 99.
      4. Another place may be in clause 11.
    1. CID 190
       1. Review Comment
       2. There are 5 instances of ACK MPDU.
       3. We should either reject or fix All ACK to “ACK frame” about 300 instances.
       4. Proposed Resolution: Revised. Ensure All “ACK” is followed by “frame”. Change all “ACK MPDU” to ACK Frame”.
    2. CID 193
       1. Review Comment
       2. Doing a quick search there are 216 instances of BlockACKReq.
       3. So we can resolve similary to CID
       4. Proposed Resolution: Revised.Change all "BlockAckReq MPDU" to "BlockAckReq frame"Ensure all "BlockAckReq" is followed by "frame"
    3. CID 192
       1. Review comment – same now for BlockAckReq.
       2. Proposed Resolution: Revised.Change all "BlockAck MPDU" to "BlockAck frame"Ensure all "BlockAck” is followed by "frame"
    4. CID 203
       1. Review Comment
       2. Discussion on what should be in clause 8 vs 9.
       3. Discussion on description vs behaviour
       4. from Mark Hamilton to Everyone: 8.4.1.17 has wording like: "APs set the Queue Request subfield to 1 if they can process a nonzero Queue Size subfield in the QoSControl field in QoS data frames and set it to 0 otherwise." which seems better.
       5. **ACTION ITEM:** Mark H. to suggest replacement wording for CID 203, and move the comment to MAC AdHoc for resolution.
    5. CID 15
       1. Review the comment
       2. “element” vs “Mechanism”
       3. PREP, PREQ, PERR usage issue.
       4. “addressed PREQ” change to “addressed frame PREQ element”
       5. Individually addressed PREP == which field is supposed to be individually addressed. And there are a couple ways the term was used. The Ambiguity needs to be defined before a change is made.
       6. PREQ seems to be OK (See 2694.12) for a definition, but for PREP there is no matching statement – add editor note to highlight and fix in WG LB.
       7. Proposed Resolution: REVISED (EDITOR: 2012-10-01 10:33:12Z) - Insert "mechanism" at the end of the heading for 13.10.9, 13.10.10, 13.10.11, 13.10.12Insert "element" after "PREQ" (with appropriate adjustment for plurals) when it is not followed by "mechanism" or "element" or is part of a name of a field, or is otherwise used as an adjective.Ditto for "PREP".Ditto for "PERR".At 1383.30 add "element" after "PREQ (path request)" + same for PREP, PERR and RANN.At 1386.20 replace "proactive PREQ or RANN elements" with "proactive PREQ elements or proactive RANN elements"Replace "addressed PREQ" with "addressed frame containing a PREQ element".Insert "mechanism" after PREQ at: 972.50,At 1383.15 replace "proactive PREQ or RANN mechanism" with "proactive PREQ mechanism or proactive RANN mechanism"
    6. CID 137
       1. Review comment
       2. What does the Length Field cover? Vs where it should be defined.
       3. Can it be defined once in 8.4.2.1 and then remove in all instance elsewhere.
       4. The Element ID and the Length are defined in 8.2.4.1, but are treated differently depending on where the element came from.
       5. The removal of the “magic” numbers was attempted in last revision, but there are some that are needed to be fixed still.
       6. The Country Element is being addressed by 11ac, so we should not look at this one now.
       7. The length statement is often wrong as the table indicates the proper length.
       8. Having the ElementID and the Length field refer back to the table to be consistent.
       9. The update to the length in the table…the structure diagrahm really define the length.
       10. There is an issue on whether the table 8-54 has correct values in Length or not.
       11. Implemtations should not use the table 8-54 as the sole place to find the definitive value for the elements.
       12. The name of the table is “Element IDs” why do we have the length added here?
           1. This was to clear up what the value of the length field should be.
           2. The problem is that the value of the length field does not include the elment ID and the length as well. So this value is not consistent across the IEs.
       13. Straw-poll: Do agree to remove individual element’s length field statements removed?

A-Yes (Except where it adds additional semantics, e.g. is a multiple of 3).

B-Yes (and insert a reference to 8.4.2.1 in each element) (“The ElementID field and the Length field are defined in 8.4.2.1”)

C-No

* + - 1. Results:

A-Yes – 4 No –0 A-3

B-Yes – 5 No –1 A -1

C-Yes – 0 No –7 A - 0

* + - 1. Althougth B has the support, it also has some opposition.
      2. We do want to pick one choice…
      3. We are out ot time, so we will start here to continue on the next call.
  1. Plan for next call(s) Nov 2
     1. We will have a call next week. Note that some timezones are changing between now and our call, but the time of the call will be 10am ET.
  2. Adjourn at 12:02pm

**References:**

**Oct 26th:**

Full Comment Database file**:**

[**https://mentor.ieee.org/802.11/dcn/12/11-12-1082-05-0000-revmc-pre-ballot-comments.xls**](https://mentor.ieee.org/802.11/dcn/12/11-12-1082-05-0000-revmc-pre-ballot-comments.xls)

Submission from Carlos Aldama for CID 46, 47, 48, 354:

[**https://mentor.ieee.org/802.11/dcn/12/11-12-1249-00-000m-802-11-2012-cid-46-47-48.doc**](https://mentor.ieee.org/802.11/dcn/12/11-12-1249-00-000m-802-11-2012-cid-46-47-48.doc)

**Oct 12th:**

MAC AdHoc Preballot Collection:

[**https://mentor.ieee.org/802.11/dcn/12/11-12-1189-04-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls**](https://mentor.ieee.org/802.11/dcn/12/11-12-1189-04-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls)

**Oct 5th:**

Full Comment Database file:

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-04-0000-revmc-pre-ballot-comments.xls>

Proposed Scheduleing:

<https://mentor.ieee.org/802.11/dcn/12/11-12-1203-01-000m-revmc-shedule.docx>

**Sept 28th:**

Full Comment database file:

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-02-0000-revmc-pre-ballot-comments.xls>

Liaison Letter referencing IANA IKEv1 .

<https://mentor.ieee.org/802.11/dcn/12/11-12-0977-00-0000-liaison-to-ietf-group-repository.doc>