IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes for Jan 2013 Interim - Vancouver | | | | |
| Date: 2013-01-17 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdah | CSR | 10871 N 5750 W Highland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |
|  |  |  |  |  |

Abstract

Minutes of the TG REVmc meetings during the 802 Wireless Interim Session January 2013 in Vancouver, BC, Canada.

1. Monday, 14 January 2013, PM1
   1. Called to order 14 Jan 2013 at 1:32pm by Dorothy Stanley, Aruba Networks
   2. Draft Agenda 13-93r2
   3. Review the Patent Policy and other guidelines
      1. No requests for LOAs or issues were identified
   4. Review the agenda on slide 3 of 11-13/93r2
      1. Today’s Agenda

* Chair’s Welcome, Status, Review of Objectives, Approve agenda, minutes
* Editor’s Report
* Timeline and Schedule
* Eldad 11-12-1431(35, 61, 65, 275, 276)
* Matthew Fischer - 40, 43, 56, 96, see 11-12-1256, Dan Cohn 11-13-0063
  + 1. Location based discussions would like to be later than today.
       1. Could we move the Location Discussion to another time?
       2. Location Topic Moved to Wed PM1
    2. New agenda found in doc 11-13/93r3
  1. Prior Meeting Minutes:
     1. Doc 12/1435r3 and 12/1225r0
     2. Approved by Unanimous Consent without objection.
  2. Editor’s Report
     1. Doc 11-13/95r1
     2. Currently we have D0.7 in the member’s area.
     3. D0.6 has approved Nov 2012 resolutions
     4. D0.7 has speculative edits and conference call proposals.
     5. Review history of drafts
     6. Composite Resolution in 11-12/1082r3
     7. Slide 8 has some updates for the Gen unassigned CIDs that needs to be updated in the Database.
  3. Review TGmc Plan of Record
     1. TGad has been published, but would not be included in a letter ballot if we desire one this session.
        1. March/May 2013 time frame is expected time for inclusion of TGad
  4. Review the plan for this week.
  5. Eldad – Present 11-12/1431 (CIDs 35, 61, 65, 275, 276)
     1. Review/Present the doc 11-12/1431 – This removes the PMD layer
     2. There was a discussion on PHY Layer vs PHY Sub-Layer.
        1. There is an issue that will need to be reviewed carefully.
        2. Editor to add an Editor Note and more review should be done.
     3. There is another set of parameters in the Vector descriptions that have values that are unknown in the value descriptions.
        1. Service Field needs more research on the values that are described here.
        2. An Editor note should be put in to highlight the needed research.
        3. In the TX side the service field had 1and 2 MB, and so it is unknown as to the rationale.
        4. In the RX side the Service Field was left reserved, but we may want to verify it.
        5. Rather than debate them here, these will be noted and more work will be needed in the future.
        6. Some fields of the PMD were put into the RX and TX vector fields
        7. Some Parameters should not make it out of the PHY, and if they are such, then they should be deleted rather than exported out of the PHY.
        8. 16.4.5.12 is the section that these concerns were noted.
        9. The MAC language may be the issue.
        10. SQ may or may not be used in the MAC language, but it is believed that the SQ is used by the MAC for Rate selection and so it should be in the RX Vector.
     4. The changes that are being done by “This proposal” has taken a conservative approach, and has included maybe more fields than are really needed, but that allows us to determine later if it should be deleted, but if we delete too fast, it would be gone and forgotten.
     5. Proposed Resolution for (CIDs 35, 61, 65, 275, 276) Revised: Incorporate the changes in doc12-1431-r1
  6. Matthew Fischer – CID 40, 43, 56, 57, 96, see 11-12-1256
     1. Review document 11-12-1256
        1. Previous reviews had discussion on how the PHY parameters should have been defined.
        2. Question on why restrictions on specific PHY parameters rather than just giving the MACRO requirements of the Slot time.
        3. This is fine if the same guy is making the MAC and PHY, but we may have some issues if the MAC and PHY are from different providers.
        4. Question on what details should be provided across the abstract interface.
        5. We do not have a concrete interface from the PHY or MAC, and we need to be aware of some values are typical, but we do not have a plug-in interface between MAC/PHY.
        6. aMACProcessing time my need to be described and limited.
        7. It may be that the numbers being wiped out have not been used over 10 years…in some opinion.
        8. The values in the equations are really an implementation dependant set of values.
        9. The argument is that there is not a standard MAC/PHY interface, and that we have some artefacts’ of one that are passed across the abstract interface.
     2. There was a question on if the requested discussion and feedback from November if it had been included.
     3. We will look at it again on Wed PM1 for a motion.
     4. Question if there was objection to having the values
  7. Dan Cohn 11-13-0063r2
     1. Review Doc 11-13/0063r2 for CID 40-43-56-96
     2. This document depends on doc 12/1256r9 is accepted.
     3. Review the document looking for the removal of the Absolute Numbers and replace with reference to tables where the values can be defined.
     4. Question on the AirPropoagationTime is in or out of the Slot time.
        1. There was not clear consensus on where it is included.
     5. Discussion on how the wording was chosen in the table was not clearly edited and so there was confusion on what is the modification of the Slot time parameter.
     6. For Coverage Class 0 there is a concern that aAirPropagationTime would be zero.
     7. aSlotTime does include the aAirPropagationTime.
     8. It really is a problem with how it is described…it should be 20us plus the coverage class that includes the aAirPropagationTime.
     9. Text used to talk about the default value of zero is used differently in STA and in APs.
     10. Change how Slottime is defined.
     11. There will need to be an R3 with the changes identified in the presentation today.
     12. Everyone was asked to review R3 and then see we are ok with the updates.
     13. The Chair will add a motion during Wed PM1 for resolution.
  8. Comments Targeted for This Session are complete, so we can have an extra 10 minutes for a break and then start after the break on 1229r4.
  9. Recess at 3:21pm

1. Monday 14 January 2013 PM2 –
   1. Called to order at 4:05pm by Dorothy Stanley, Aruba Networks, TG REVmc Chair
   2. Agenda for this slot to review 11-12/1229r4
      1. (Note CID 311 will be reviewed during Tuesday AM2. This was done and some more change to the Resolution has been requested to look at this again.)
   3. Adrian – 11-12/1229r4
      1. Continue the Review of the Document r4, and r5 if we make changes during the presentation.
      2. CID 268
         1. Review Comment
         2. Question on if we have properly addressed the comment with the resolution.
         3. It could be that this is an implementation issue, and not a standard problem.
         4. Proposed Resolution: REJECTED (GEN: 2013-01-15 00:21:08Z) The PM subfield is inspected earlier in the receiver pipeline than the duplicate detection cache, or the QoS Null frames are not subject to the duplicate detection cache. This is the only workable implementation, otherwise a STA that validly always uses the same value of SN (e.g., 0) in a QoS Null, would not be able to tell the AP about its PM transitions, etc...
         5. Several distinctions were discussed, but no other alternative resolution was agreed to.
         6. Move to Ready to Motion : “ Motion Gen –F”
      3. CID 267
         1. Review the comment
         2. Deferred due to deferral of CID 165 also.
      4. CID 266
         1. Review the comment
         2. Straw Poll:
            1. Leave as is
            2. Add new status code
            3. Add “Should” language to addts.request primitives
         3. Default resolution is set for the reject option.
         4. Proposed Resolution: reject The commenter does not indicate an issue to be resolved or specific changes to be made. In reply to the commenter, the completion of the four-way handshake unblocks the 802.1X controlled port (see figure 10-6). It has no effect on Class-based filtering. All action frames may be sent in State 3.
         5. There is a strange chicken and egg problem where a station cannot send data if all the ACs are admission control.
         6. No matter how we resolve this, we have the Fast Transition problem that allows conversation that may occur prior to the 4-way handshake.
         7. All Action frames may be sent in State 3, but the AP may reject them if the security is not in place.
         8. Having a code to indicate that the RSNA was needed to be completed.
         9. In 11r, you are supposed to complete the RSNA prior to the completion of the 4-way handshake, and if the 11w case, there is a similar case. The AP will want to wait for an RSNA for the 4-way to occur prior to start.
         10. There is no rule that frames are allowed without admission control.
         11. We should encourage that the RSNA should occur first.
         12. We may have two dumb things going on where all admission control is requiring to do an RSNA prior to do the admission control.
         13. If the AP does not allow for 802.1X data frames which are a special ethertype which is carried prior to a data path, and should allow the packets.
         14. If the Station has gained access to the medium is the trouble, as the AP is controlling the medium.
         15. In order to get a 2-way handshake, the AP has to have granted access to the STA to send the info.
         16. We have a concern that the Industry Vendors will want a particular behavior.
         17. So no alternatives were proposed, so we used the proposed resolution from 11-1229r4.
         18. Move ready for motion.
      5. CID 265
         1. Review Comment
         2. Straw poll:

1 Fix the inconsistency related to S-APSD?

2 Ignore the inconsistency?

3 Mark S-APSD as obsolete?

* + - 1. Proposed change (at 984.35)

The STAs that currently have buffered BUs (excluding those BUs for a STA associated with ACs that are U-APSD delivery-enabled when not all ACs are delivery-enabled by that STA) within the AP are identified in a TIM, which shall be included as an element within all Beacon frames generated by the AP. A STA shall determine that a BU is buffered for it by receiving and interpreting a TIM.

* + - 1. Or alternatively:

The STAs that currently have buffered BUs within the AP that the AP is prepared to deliver are identified in a TIM, which shall be included as an element within all Beacon frames generated by the AP. A STA shall determine that a BU is buffered for it by receiving and interpreting a TIM.

* + - 1. Some like first, others liked the 2nd.
      2. Is the term “Trigger enabled” used in the standard?
         1. No it is just the delivery. This does not apply here.
      3. The first option is more precise, the second is similar in language to existing.
      4. Request for first one? No objection for first option.
      5. Proposed Resolution: At 984.35, after “The STAs that currently have buffered BUs”, insert “(excluding those BUs for a STA associated with ACs that are U-APSD delivery-enabled when not all ACs are delivery-enabled by that STA)”
    1. CID 262
       1. Review comment
       2. Proposed Resolution: Revised. Make changes as shown for CID 265. These resolve conflict between the U-APSD description and the general description.
       3. No objection, mark ready for motion.
    2. CID 261
       1. Review comment:
       2. Proposed Resolution: Reject. The commenter has not indicated a specific problem to be resolved or a specific change to be made.
       3. Discussion on the size of the problem if there is one.
    3. CID 255
       1. Review Comment
       2. Proposed Resolution: Rejected. 764.40 states unambiguously that this frame can be used by “both non-AP STA and AP”. None of the other uses of “Notify Channel Width” conflict.
       3. Move to ready for motion “Motion Gen – F”
    4. CID 237
       1. Review comment
       2. Proposed Resolution:
       3. Rejected. There is nothing to stop an AP internally prioritising one (non-delivery-enabled) AC over another in responding to a PS-Poll. Adding mandatory statement to this effect might make legacy devices non-compliant.
       4. No objection – move to Ready to Motion : “ Motion Gen –F”
    5. CID 235
       1. Review Comment
       2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:08:03Z) Commenter has withdrawn the comment.
       3. No objection – move to Ready to Motion : “ Motion Gen –F”
    6. CID 250
       1. Review the comment
       2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:09:38Z) The assertion that BAR/BA cannot be followed by data in a TXOP is incorrect. A TXOP can be filled with txop-sequence terms, the first of which can be a BAR/BA, and subsequent ones can contain data. See 2311.32.
       3. No objection – move to Ready to Motion : “ Motion Gen –F”
    7. CID 248
       1. Review Comment
       2. Discussion on the
       3. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:12:43Z) The commenter does not indicate a specific change to be made. Additional rules for access categorization for CF-END and NDP are not necessary. The CF-End is transmitted only when the STA already has access to the medium, and so the question of its admission category is not relevant. Likewise with the NDP, it is never the first transmission in a frame exchange sequence.
       4. No objection – move to Ready to Motion : “ Motion Gen –F”
    8. CID 252
       1. Review Comment
       2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:21:02Z) - "The X element is present..." refers to a single X element. "The X element is optionally present" refers to zero or one X elements. Where this is not the case other expressions are used, such as at 421.40: "One or more Multiple BSSID elements are present..."
       3. No objection – move to Ready to Motion : “ Motion Gen –F”
    9. CID 256
       1. Review comment
       2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:22:47Z) - "Operating Mode notification" is not a concept in the 802.11REVmc draft, although we do note that it is a concept in a forthcoming amendment, not yet incorporated into REVmc. But relating the question to "Notify Channel Width", the text at 1098.01 makes it clear that the AP should not (no absolute prohibition) transmit 40 MHz group addressed frames in the cited example.
       3. No objection – move to Ready to Motion : “ Motion Gen –F”
    10. CID 257
        1. Review Comment
        2. Discussion on the conclusions raised.
        3. Action item: Mark Hamilton: Investigate and return with alternate Resolution.
    11. CID 251
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2013-01-15 01:31:05Z) - At 878.01, replace "before the expiry of the TXNAV timer" with "provided that the duration of transmission of that frame plus the duration of any expected acknowledgment and applicable IFS is less than the remaining TXNAV timer value".
        3. No objection – move to Ready to Motion : “ Motion Gen –F”
    12. CID 358
        1. Review comment
        2. Discussion on the dot11RTSThreshold – what is the value of the parameter.
        3. Proposed Resolution: Revised. Relate the parameter to PSDU length as follows by making the changes as shown under CID 358 in 11-12/1229r4
        4. No objection – move to Ready to Motion : “ Motion Gen –F”
    13. CID 39
        1. Review Comment
        2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:37:35Z) - Rejected. The PDF reader will show somewhere on its user-interface the current "logical" page number. The editor will endeavour to ensure that these page numbers match the printed page numbers.
        3. No objection – move to Ready to Motion : “ Motion Gen –F”
    14. CID 142
        1. Review Comment
        2. Proposed Resolution: REVISED (GEN: 2013-01-15 01:43:48Z) At the end of the sentence at 75.15 "This standard does not provide data confidentiality for group addressed robust management frames." add ", except for certain Action frames related to mesh operation, as indicated in Table 8-38. "
        3. No objection – move to Ready to Motion : “ Motion Gen –F”
    15. CID 87
        1. Review comment
        2. Look at diagrams
        3. There is a description on the value of timeout, so maybe we should be adding the value “TIMEOUT” to the ADDTS.confirm…
        4. There is a question of did we just miss removing it?
        5. Is there something special to ADDTS that makes it warrant having a timeout?
        6. Ran out of time for further discussion on this CID – Start here next time we discuss 11-12/1229.
    16. CID 44
        1. Review comment
        2. Proposed Resolution: REJECTED (GEN: 2013-01-15 01:58:34Z) Proposed Resolution: Rejected. "Operational" can apply to multiple types of operation. There is no compelling need to find different synonyms to apply to different contexts. "STA Channel Width" is correct terminology. It refers to the operating channel width of the STA transmitting the HT Operation element. 1091.15 constrains the values of this field in the case of transmission by an AP so that it is wholly dependent on the SCO field. But such constraint does not exist in the case of an IBSS, in which case the STA Channel Width field tells us something about the STA’s capabilities as opposed to characteristics of the BSS.
        3. No objection – move to Ready to Motion : “ Motion Gen –F”
    17. Recessed 6:00pm – Next meeting Tuesday AM2 Slot. (MAC CIDs in the morning)

1. Tuesday 15 January 2013, AM2
   1. Called to order at 10:32 by Dorothy Stanley, Aruba Networks
   2. Patent policy reminder
      1. No issues noted.
   3. Review plan for this slot
      1. Move CID 59 to Thursday
   4. MAC Adhoc Comments:
      1. CID 288
         1. Review comment
         2. Proposed Resolution: Reject. The proposed change breaks interoperability. Furthermore, if mesh STAs selects beacon interval arbitrary, MCCAOPs will drift away among STAs and it is virtually impossible to allocate MCCAOPs that do not collide each other. This topic has been discussed in TGs intensively number of times when the group was active. The group decided that a specified restriction to the beacon interval for the MCCA enabled STA is appropriate to maintain simple yet flexible MCCAOP coordination among STAs in distributed manner. Even with the restriction to the beacon interval, STAs can select flexible enough reservation intervals by choosing MCCAOP Periodicity carefully.

For your reference, see resolution to CID2168 found in https://mentor.ieee.org/802.11/dcn/11/11-11-0287-08-000s-p802-11s-sponsor-ballot-2nd-recirc-comments.xls. Also, we can see the final perception of the proposal from a meeting minutes https://mentor.ieee.org/802.11/dcn/11/11-11-0821-00-000s-meeting-minutes-of-the-may-2011-meeting-of-the-ieee-802-11s-tg.doc. Only the proposer was supportive to this idea.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 289
       1. Review the Comment
       2. Proposed Resolution; Reject.
       3. The proposed change breaks interoperability. Furthermore, if mesh STAs selects beacon interval arbitrary, MCCAOPs will drift away among STAs and it is virtually impossible to allocate MCCAOPs that do not collide each other. This topic has been discussed in TGs intensively number of times when the group was active. The group decided that a specified restriction to the beacon interval for the MCCA enabled STA is appropriate to maintain simple yet flexible MCCAOP coordination among STAs in distributed manner. Even with the restriction to the beacon interval, STAs can select flexible enough reservation intervals by choosing MCCAOP Periodicity carefully.

For your reference, see resolution to CID2168 found in https://mentor.ieee.org/802.11/dcn/11/11-11-0287-08-000s-p802-11s-sponsor-ballot-2nd-recirc-comments.xls. Also, we can see the final perception of the proposal from a meeting minutes https://mentor.ieee.org/802.11/dcn/11/11-11-0821-00-000s-meeting-minutes-of-the-may-2011-meeting-of-the-ieee-802-11s-tg.doc. Only the proposer was supportive to this idea.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 311
       1. Was reviewed last September by the group, a proposal was made to set bit to get a TFS Notify Frame. Subsequent to this, there was some testing and more discussion, and it is not sure that we really want to do this, but rather we should defer acting on this CID until we know how the testing and research resolves.
       2. Propose to undo the resolution that has been applied to the draft already, and leave the comment as unresolved and apply the comment to a future consideration.
       3. We could reject the comment, and then if a change is needed another comment could be brought forward.
       4. Move the existing Resolution to the Adhoc notes may help the editor.
       5. The comment is owned by Editor Adhoc
       6. New Proposed Resolution; Reject, There may be cases when the notify frame is useful with individually addressed frames.
       7. A Motion to undo and set the resolution detail will be worked out later.
    2. CID 368
       1. Review comment
       2. Proposed Resolution Reject. In 9.19.2.2 it says, "There are two modes of EDCA TXOP defined, the initiation of the EDCA TXOP and the multiple frame transmission within an EDCA TXOP. An initiation of the TXOP occurs when the EDCA rules permit access to the medium. A multiple frame transmission within the TXOP occurs when an EDCAF retains the right to access the medium following the completion of a frame exchange sequence, such as on receipt of an ACK frame."

9.19.2.4 clarifies the second mode, thus: "Multiple frames may be transmitted in an EDCA TXOP that was acquired following the rules in 9.19.2.3 if there is more than one frame pending in the AC for which the channel has been acquired." This goes on to describe this transmission being with a SIFS (or RIFS) separation, and continuing as long as the TXOP Limit is not reached.

That seems to clearly describe a TXOP, as per the latter concept the commenter provided.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 281
       1. Review Comment
       2. Proposed Resolution: Reject. As the commenter notes, there are already cases where "something happens" at the peer, and the transmitter of a QoS-Null will need to confirm that the request for this action has been received. In addition to HT Control uses, this also includes power management mode changes, end of EDCA service period and More Data indications.

Further, the use of QoS-Null to decline RDG isn't obvious from 9.25.4, or certainly not the most efficient method. Changing the ACK rules for this purpose is not sufficiently argued by the commenter.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 223
       1. Review comment
       2. Proposed Resolution; Reject. CF-Poll (including PCF and HCCA uses of this frame type) is an example of a case that is not PSMP Ack, that uses this Ack Policy setting.

"The rest of the spec" probably uses PSMP Ack only when discussing that feature. But, it also clearly discusses CF-Poll when discussing that feature. The commenter didn't provide examples of where the text suggests that PSMP Ack is the only usage of this Ack Policy, to be considered.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 4
       1. Review Comment
       2. Discussion: This looks like an oops when SAE was added. 00-0F-AC:9 is the selector for FT with SAE. So, yes, it seems a RIC would be appropriate with this selector value.
       3. Proposed Resolution: Accept.
       4. No objection – move ready to motion –Motion MAC D
    2. CID 279
       1. Review Comment
       2. Discussion: The APSD subfield referenced is from a Capability Information field sent by the AP, but that is far from clear in the text. That Is, the AP indicates support for APSD in its Capability Information field, and the non-AP STA indicates its desire to enable/use APSD by setting the U-APSD Flag(s) in the QoS Info field when the AP can support it (or via TSPEC, after association).

Thus, the setting of the APSD subfield in the Capability Information field from the non-AP STA is irrelevant, and why it required to always be zero.

* + - 1. Proposed Resolution: Revise: Change "APSD subfield in the Capability Information field" to "APSD subfield in the Capability Information field most recently received from the AP with which the non-AP STA is associating ".
      2. No objection – move ready to motion –Motion MAC D
    1. CID 92
       1. Review Comment
       2. Proposed Resolution; Revised – See CID 137 “In the subclauses defining elements, replace statements about the setting of the ElementID and Length fields with the following: "The Element ID and Length fields are defined in 8.4.2.1 (General)." , except merge in any non-trivial semantics attached the length field.”
       3. No objection – move ready to motion –Motion MAC D
    2. CID 95
       1. Review Comment
       2. Proposed Resolution; Revised – See CID 137 “In the subclauses defining elements, replace statements about the setting of the ElementID and Length fields with the following: "The Element ID and Length fields are defined in 8.4.2.1 (General)." , except merge in any non-trivial semantics attached the length field.”
       3. No objection – move ready to motion –Motion MAC D
    3. CID 219
       1. Review Comment
       2. Discussion: The usage near the bottom of page 598 does seem incorrect, since this is all in the context of the IGTK sub element. That said, this sentence and the previous sentence seem very redundant with each other, and technically inaccurate, anyway.
       3. Proposed Resolution: Change "The IPN field indicates the receive sequence counter for the IGTK being installed. The PN field gives the current message number for the IGTK, to allow a STA to identify replayed MPDUs." to "The IPN field indicates the receive sequence counter for the IGTK being installed, to allow a STA to identify replayed protected group addressed robust management frames."
       4. No objection – move ready to motion –Motion MAC D
    4. CID 5
       1. Proposed Resolution; Revised – See CID 137 “In the subclauses defining elements, replace statements about the setting of the ElementID and Length fields with the following: "The Element ID and Length fields are defined in 8.4.2.1 (General).”, except merge in any non-trivial semantics attached the length field.”
       2. No objection – move ready to motion –Motion MAC D
    5. CID 93
       1. Review comment
       2. Proposed Resolution: Revise: Make the BSS Transition Candidate List Entries subfield in Figure 8-474 "(optional)". Change the text at 783.25 from "one or more" to "zero or more" elements. Add "or in an unsolicited BSS Transition Management Request frame" after "in response to the BSS Transition Management Query frame". In the second paragraph of 10.23.6.3, change "one or more" to "zero or more".
       3. No objection – move ready to motion –Motion MAC D
    6. CID 94
       1. Review comment
       2. Does the Status code provide enough information to know if the optional field is present or not.
       3. There is a statement “or if no transition information is available” that is causing the heartburn. (see page 754)
       4. Proposed Resolution: Revised: Change “This field is not present if the STA does not transition or if no transition information is available” to “This field is present if the Status code subfield contains 0, and not present otherwise.”
       5. No objection – move ready to motion –Motion MAC D
    7. CID 185
       1. Review comment
       2. Proposed Resolution: Accept
       3. No objection – move ready to motion –Motion MAC D
    8. CID 184
       1. Review Comment
       2. Discussion: From 10.9.8.2, if seems that the DFS procedures use only CSA to announce a channel change due to radar detection. (Perhaps that is an oversight?) Given this, one can assume that the PIFS exception is given to CSA frames to ensure the AP can announce and perform the switch as quickly as possible. Since the ESCA is not used for this purpose, it doesn't need the priority boost.
       3. An HC can start a CAP after PIFS, and under the CAP it can transmit what it wants. A Channel switch does not need to be explicitly called out each time it is used.
       4. A PIFS can be used as shown in 9.2.3.4.
       5. See 9.19.3.2.3 CAP generation reviewed
          1. So the HC can use PIFS when it wants.
       6. A DFS owner (DO) can use it as shown in 10.9.
       7. We may want to check with Brian Hart as he has been working on the channel switch in 11ac. There are times where we have been forced to send both, and he may have a perspective of the issue.
       8. Why can CCAs at PIFS but not ECCAs? Is the original questions.
       9. There is probably a valid comment, but as we are talking about IBSS using ECCA which is not very interesting until 11ac comes into be, and this case may now appear.
       10. Assign and Defer to allow Brian Hart to check on this CID.
    9. CID 158
       1. Review Comment
       2. Discussion on possible Resolution: Revised. In 9.3.2.10, 5th paragraph, change "The receiving QoS STA shall also keep a cache of recently received <Address 2, TID, sequence-number, fragment-number> tuples from QoS Data frames ..."

to

"The receiving QoS STA shall also keep a cache of recently received <Address 2, TID, sequence-number, fragment-number> tuples from QoS Data frames that are not QoS (+)Null frames …"

* + - 1. It was determined that we would be better to put a statement in earlier about the duplicate detection.
      2. Proposed Resolution: Revised – Add a new third paragraph to 9.3.2.10: “Sequence numbers for transmitted of QoS(+)Null Frames may be set o any value. For the purposes of duplicate detection, Qos (+)Null frames shall be ignored.”

Delete “Sequence numbers for QoS (+)Null frames may be set to any value.” From the end of the 5th Paragraph of 9.3.2.10.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 167
       1. Review comment
       2. Proposed Resolution; Revised. See CID 158. With the addition of text to 9.3.2.10 to cover the behaviour for QoS (+)Null frames, clause 8 should no longer state such behaviour. So, delete the sentence, "The Sequence Control field for QoS (+)Null frames is ignored by the receiver upon reception." from 8.3.2.1.
       3. No objection – move ready to motion –Motion MAC D
    2. CID215
       1. Review Comment
       2. Discussion: The only difference between non-TPMF management frames and TPMF (Time Priority Management Frames) frames is that there is (well, there is supposed to be) one special rule for non-TPMFs about caching the last used SN per RA, and ensuring that this SN is not re-used sequentially when transmitting to this RA (by incrementing the counter by 2 if re-use would otherwise happen). If that is the concern, the commenter seems to have missed that this special rule is required only for non-TPMFs because they share a single modulo-4096 counter across all RAs, so sequential re-use of a SN to a given RA can happen if there happen to be 4095 frames to other RAs between transmissions to a particular RA. (Note this counter actually applies to group addressed QoS-Data, and non-QoS-Data frames, too.) Since TPMF frames (optionally) keep the SN counter per <Address 1, TID> tupule, there is no need for this special rule, as the counter is already assured to be sequential for a given RA and TID. Note, if the optional TPMF counter is not used, then TPMF frames are treated just like other management frames, and the single counter, and re-use rules do apply.

However, there seems to be an ambiguity in that the text for the optional use of TPMF counters was inserted between the description of the single counter for non-TPMF frames, and the sentence that starts, "A transmitting STA should cache the last used sequence number per RA for frames that are assigned sequence numbers from this counter and should …” That sentence was intended to apply to the single counter used for non-TPMF management frames, group QoS data frames and non-QoS data frames. The antecedent of "this" in this sentence has gotten confused by the inserted sentence about additional optional TPMF counters.

* + - 1. See 9.3.2.10 – determination of which counter to used was discussed.
      2. There seems to be two different counters plus several others.
      3. There are not names or descriptors for the specific counters noted.
      4. An Editor note should be added for later.
      5. Enumerating the counters may be good.
      6. Proposed Resolution: Revised. Replace "this counter" in the sentence that starts, "A transmitting STA should cache the last used sequence number per RA for frames that are assigned sequence numbers from this counter and should …" with "the additional single modulo-4096 counter for management frames".
      7. No objection – move ready to motion –Motion MAC D
    1. CID 216
       1. Review Comment
       2. Proposed Resolution: Reject. Per 9.3.2.10, "Sequence numbers for management frames, QoS data frames with a group address in the Address 1 field, and all non-QoS data frames transmitted by QoS STAs shall be assigned using an additional single modulo-4096 counter, starting at 0 and incrementing by 1 for each such MSDU, A-MSDU, or MMPDU, except that a QoS STA may use values from additional modulo-4096 counters per <Address 1, TID> for sequence numbers assigned to time priority management frames."

This seems pretty clear. A transmitter \_may\_ use per-TID counters especially for TPMC, or they can be combined with other management frames, group QoS data frames and non-QoS data frames, at the implementation's option.

* + - 1. No objection – move ready to motion –Motion MAC D
    1. CID 203
       1. Proposed Resolution: Replace the sentence in 8.4.1.14 with, “The A-MSDU Supported subfield is set to 1 by a STA to indicate that it supports an A-MSDU carried in a QoS data MPDU sent under this Block Ack agreement. It is set to 0 otherwise.”
       2. No objection – move ready to motion –Motion MAC D
    2. CID 305
       1. Review Comment
       2. Proposed Resolution; Revise - Replace the second paragraph of 10.23.3.2.1 with these two new paragraphs:

"The ANQP query request comprises one or more ANQP elements drawn from Table 8-184 having an element type of Q in Table 10-10 and shall be ordered by non-decreasing Info ID. An ANQP Query List included in an ANQP query request is formed as described in 10.24.3.2.2. The ANQP query request is transported in the Query Request field of GAS Request frames as described in 10.24.3.1.4.

The ANQP query response should comprise ANQP elements having Info IDs present in the ANQP query request's Query List ANQP-element (if present) plus zero or more responses to other query elements; these ANQP elements shall be chosen from among those listed in Table 8-184 having an element type of S in Table 10-10 and shall be ordered by non-decreasing Info ID. The ANQP query response is transported in the Query Response field of GAS Response frames, as described in 10.24.3.1.4."

* + - 1. No objection – move ready to motion –Motion MAC D
  1. Recessed at 12:32pm

1. Tuesday 15 January 2013 - PM1
   1. Called to order at 3:35pm by Dorothy Stanley, Aruba Networks
   2. Agenda for this slot is review Doc 11-12/1229r5
   3. Doc 11-12/1229r5
      1. We will produce an r6 with the changes from today.
      2. CID 87
         1. This is where we said we would start from yesterday
         2. There is no TIMEOUT code in the reasons
         3. There are two solutions
            1. 1 remove the timers from the figures
            2. 2 add TIMEOUT to the result code
         4. There is a question of an inconsistency of having a parameter and a MIB variable that is used interchangeable, and the extraneous variable needs to be addressed.
         5. The comment is not really addressing the inconsistency
         6. Allow the inconsistency to be taken care of later as it is not the subject of the comment.
         7. Proposed Resolution: Revised In the ADDTS.confirm Resultcode, Add “TIMEOUT” to the result codes.
      3. CID 26
         1. Review the comment
         2. See 11-12/1229r5 for more detail on the discussion and rational in decision processing.
         3. Proposed Resolution:

Revised.

At 147.55, delete the "SSIDEncoding" parameter, and entry from parameter table.

At 151.33, delete "If an MLME receives an MLME-START.request primitive with the SSIDEncoding parameter value UTF8, the MLME shall set the UTF-8 SSID subfield of the Extended Capabilities element to one in Beacon and Probe Response frames."

At 478.55, delete “NOTE—This is true for Beacon and Probe Response frames when the MLME-START.request primitive was issued with the SSIDEncoding parameter equal to UTF8."

At 117.20, add a TIMEOUT value to the ResultCode enumeration.

At 116.10, add the following parameters, copying to the parameter table the matching entry from the START.request:

• Capability Information

• HT Capabilities

• Extended Capabilities

• 20/40 BSS Coexistence

• InterworkingInfo

• AdvertisementProtocolInfo

* + - 1. No objection – move ready to motion –Motion Gen G
    1. CID 90
       1. Review comment
       2. Discussion: We agreed to do this in REVmb days. Any remaining such ReasonCodes are either a failure in REVmb, or were washed up on the tide of later amendments.

However, this work revealed that we have a related problem with ADDBA.request/confirm.

The ADDBA.request has a parameter that is a timeout value (BlockAckTimeout). The 10.5 text related to timeouts refers to a MIB variable dot11ADDBAFailureTimeout that does not exist. The same text refers to a TIMEOUT code. To make matters worse, there is normative text relating to this non-existent MIB variable. The timeout is also implicitly referred to from Figure 10-12.

* + - 1. Straw poll:: (yes/no votes for each)

1 Keep the timeout parameter, fix references to wrong name. Restore TIMEOUT result code.

2 Delete the timeout parameter, delete cited text below and fix Figure 10-12.

3 We don’t care. Do nothing

* + - 1. There seemed to be a problem with the references, so Adrian wanted to fix the material referenced was different than he thought he thought it was
      2. Adding and deleting a TIMEOUT result has caused a lot of debating.
      3. The distinction of which entity is timing out and who needs to have it reported to is the main argument. When a TIMEOUT is handed over a SAP interface, then it is a local problem. When a MIB variable timeout occurs then there is an over the air timeout that is a signalling error that has to be resolved in a time boundary.
      4. So we do not really have a need for TIMEOUT in most cases.
      5. Minimize the changes and deal with issues later.
      6. Proposed Resolution: Rejected the commenter has not indicated a specific issue to resolve or specific changes to be made.
      7. No objection – move ready to motion –Motion Gen G
    1. CID 182
       1. Review the Comment
       2. See 8.3.1.5 – PS-Poll frame Format section has a statement that “An AP contains a STA”
       3. Proposed Resolution: REJECTED (GEN: 2013-01-15 22:06:57Z) - An AP contains a STA, and it may also contain other 802.11 architectural entities, such the interface to the DSS.
       4. After discussion – move ready to motion –Motion Gen G
    2. CID 226
       1. Review Comment
       2. Discussion: This is a lot of work, and to what benefit?
       3. Proposed Resolution: Rejected. The commenter does not indicate specific changes that would satisfy the comment. The Group perceives insufficient benefit from making such a change
       4. No objection – move ready to motion –Motion Gen G
    3. CID 32
       1. Review the Comment
       2. Discussion: I understand the commenter’s concern. Question is whether we need to do anything about it.
       3. Proposed Resolution: Rejected. An AP can avoid the “pure poison” by including other rats in the Basic Rate Set and by avoiding the use of protection mechanisms for non-ERP receivers.
       4. No objection – move ready to motion –Motion Gen G
    4. CID 113
       1. Review comment
       2. Discussion: There is no current PHY where an aPSDUMaxLength constraint has an effect. The question is whether we are ever likely to create a PHY that could not transport the largest defined Data MPDU length (i.e, aPSDUMaxLength < aMPDUMaxLength). I think this very unlikely. If we did invent such a PHY, it would be the responsibility of that project to modify the language at the cited location to suit the new circumstances.
       3. Proposed resolution: Accepted.
       4. No objection – move ready to motion –Motion Gen G
    5. CID 1
       1. Review Comment
       2. Proposed Resolution: Rejected. The commenter does not indicate specific changes that would satisfy the comment.
       3. No objection – move ready to motion –Motion Gen G
    6. CID 188
       1. Review Comment
       2. Discussion: The 802.11n sequence are largely complete. AFAIK, it is only the aspect of Beamforming training that is not fully covered. And it may be that this is indeed covered, although I haven’t done the work to show this.

We have normative references to Annex G. In REVmb days, Annex G was for a time informative. Then we discovered the normative references, and so we made it normative. Any change to deprecate Annex G would necessarily require that it be made informative and any normative references removed.

* + - 1. Proposed Resolution: Rejected. The commenter does not indicate specific changes that would satisfy the comment.
      2. No objection – move ready to motion –Motion Gen G
    1. There are 4 comments that are deferred at this point.
    2. CID 129
       1. Review comment
       2. Is the ERP PPDU definition clear?
       3. Defer for now. – Assign to Mark Hamilton.
  1. CID 323
     1. Review comment
     2. (tentative 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".
     3. Related comments: 263, 314, 324
     4. There has been no resolution on the related comments.
     5. We have not had any consensus on the topic from the assignees.
     6. Chair asked is there any objection to accepting the Resolution?
     7. No objection – move ready to motion
  2. CID 287
     1. Menzo was present to present doc 11-13/124
     2. Review document – EIFS Issues
     3. There was a comment that implementers may be gaming the system and just treating the L-SIG as some extraneous energy and not using the EIFS, as that would give them a better response
     4. Question on slide 21 –
        1. Issue with the estimates of the rate that will be used in the response
     5. Does this remove all the disadvantages? No, but you are better off than you were.
     6. This presentation was not meant to be a cure-all, but get feedback on the idea and to evaluate it over the next few days.
     7. Presume to have the comment not be resolved now, but not sure if the group would like to resolve this now or later.
     8. TGmc will not plan to incorporate this comment this week, but roll the comment into the First LB.
  3. CID 38
     1. Review comment
     2. Area is not necessarily meaning a 2D space.
     3. Last paragraph of Page 49 talk about the use of “Area”
     4. Proposed Resolution: Reject – Please see clause 4.3.5 paragraph 5.
  4. CID 301
     1. Review the Comment
     2. Useful for the term as there are implementations that talk about the WDS and implement WDS.
  5. Ran out of time –
     1. We have Wed PM1 and PM2
     2. Motions will be posted in the agenda file ahead of time
     3. We will have location discussed during Wed PM1
     4. We will have Discussion on Wed PM2
        1. Dan Coln – 11-12-0102, Dan Harkins 11-12-0073 and the CHNB 8802-2012 comments
     5. Try to get assignees on all the comments
  6. Recessed at 3:30 until Wednesday PM1

1. Wednesday, 16 January 2013, PM1 –
   1. Called to order at 1:31pm by Dorothy Stanley, Aruba Networks
   2. Reminder to record attendance
   3. Agenda for today:
2. Motions
3. Location: Carlos Aldana - 46, 47, 48, 354, see 11-12-1249, and Erik Lindskog 11-13-0072 and Peter E.
   1. **Motion 5**

Approve comment resolutions to comments in Document 11-12-1394-06

“Motion Gen B” tab (San Antonio)

“Motion Gen C” , “Motion Gen D” and “Motion Gen E” tabs (Telecons)

“Motion Gen F” tab (Monday Jan 14)

“Motion Gen G” tab (Tuesday Jan 15),

* + 1. Moved: Jon Rosdahl, 2nd David Hunter
    2. **Motion #5 Passes: 7-0-2**
  1. **Motion 6**
     1. Resolve CIDs 35, 61, 65, 275, 276

As “Revised” with a comment resolution of

“Incorporate the changes in https://mentor.ieee.org/802.11/dcn/12/11-12-1431-01-000m-delete-pmd.docx “

* + 1. Moved: Adrian Stephens, 2nd Brian Hart
    2. **Motion #6 Passes: 12-0-0**
  1. **Motion 7**
     1. Resolve CIDs 40, 43, 56, 57, 96 as

“Revised” with a resolution of

“Incorporate the text changes in

https://mentor.ieee.org/802.11/dcn/12/11-12-1256-11-000m-lb187-cid40-43-56-96-cca.doc”

* + 1. Moved: Jon Rosdahl, 2nd David Hunter
    2. **Motion #7 Passes: 9-0-1**
  1. **Motion 8**
     1. Move to incorporate the text changes indicated in the following document into the TGmc draft:

<https://mentor.ieee.org/802.11/dcn/13/11-13-0063-03-000m-cid40-43-56-96.doc>

* + 1. Moved: Matthew Fischer, 2nd David Hunter
    2. **Motion #8 Passes: 10-0-1**
  1. **Motion 9**
     1. Resolve CID 311 as

“Rejected” with a comment resolution of

“There may be cases when the notify frame is useful with individually addressed frames.”

* + 1. Moved: Mark Hamilton, 2nd David Hunter
    2. **Motion #9 passes: 11-0-0**
  1. **Motion 10**
     1. Approve comment resolutions to comments in Document 11-12/1189r12:

“Motion MAC-C” tab ( resolutions to16 “MAC ad-hoc” comments discussed on teleconferences since the Nov12 meeting)

“Motion MAC-D” tab (Monday and Tuesday Jan 14-15)

* + 1. Moved: Mark Hamilton, 2nd Adrian Stephens
    2. **Motion #10 Passes: 9-0-0**
  1. Presentation of 11-12-1249r3 - Carlos Aldana
     1. Title: “CIDs 46,47,48 Regarding Fine Timing Measurement”
     2. The intent was to synch two clocks to .1 nano-seconds from 10 nano-seconds.
     3. Question on the appropriateness for using for location purposes.
        1. It is thought to be sufficient
     4. Review of the timing diagram
        1. This is good for keeping two clocks insynch
        2. If you want to use for Ranging, then you would want a different protocol
        3. The time that you want to send the responses is more time critical, and the protocol would be better designed with ranging in mind.
     5. There was not consensus, and the idea was that the time critical nature pointed out was not necessarily needed.
     6. Concern on if a moving STA may not get the answer while in the same place.
        1. This is not thought to be a problem.
     7. The mechanism was designed for synch, and if we look to design a better protocol for location than just taking this exchange description.
     8. Yes we could design something different, but it was thought by some that this was a good enough place to start.
     9. **Motion 11**
        1. Resolve CIDs 46, 47, 48, and 354 as
        2. “Revised” with a resolution of “Incorporate the text changes in <https://mentor.ieee.org> 12-1246r3
        3. Moved Carlos Aldana, 2nd Matthew Fisher
        4. Discussion:
           1. Speaking against due to using a mechanism for different purpose
           2. Speaking against, is this done or not?

A response was that there may be more tweaking that needs to be done.

* + - * 1. Question on finer timing as the topic, but there is also a question of are we looking to use these frames prior to Association

Response – concern that these frames used as Class one frames will not cause a throughput concern.

* + - * 1. There is another proposal that may address this issue

The Issue being addressed is for a large number of nodes, but we could add that later, as this could be a baseline.

* + - * 1. Would it be better to hold off on the Public Action Frame change until we look at the next submission?

Would it be ok to vote on this as is?

* + - * 1. This is some new functionality, and there is a question of is this within the Charter of REVmc. The Scope of REVmc is to incorporate amendments, fix errors, and include improvements to existing features, so the Chair believes it is in scope.

There was an objection as this is thought to be a new function that is being applied to an existing function that is not fully appropriate.

* + - * 1. Speaking against the motion as there is another presentation that talks about the class one frames and would like to hear it prior to taking action here.

The doc 11-13/72r1 is not in conflict with this proposal, but it does not object to the mechanism here, but that it is incrementally improving what is being proposed here.

* + 1. **Vote: 12-5-5 Motion #11 does not pass**.
  1. Presentation of 11-13/0072r1 Erik Lindskog
     1. Title: Client Positioning using Timing Measurements between Access Points
     2. Conclusions:
* A simple use of the existing timing measurement procedure to enable low overhead positioning of a large number of clients
* APs perform timing measurement procedure between each others while clients listen to this communication and computes their location
* The system is scalable as the medium overhead is not affected by the number of clients (Number\_of\_Clients) performing their location measurements i.e., System Throughput overhead is lowered from O(K \* Number\_of\_Clients) to O(K\*Number\_of\_AP). Here :
* K = Number of Measurements needed to determine a single location
* Number\_of\_AP = The number of access points that are initiating the Timing Measurement (Potentially Number\_of\_AP can be 1 to service Number\_of\_Clients)
* Location precision can possibly be improved as the method can allow (low overheads) for measurements to more APs as well as more frequent measurements
* User privacy similar to GPS
  + 1. No discussion after presentation.
  1. Presentation 11-13/134r0
  2. Comment Resolution from Peter E.
     1. CID 298
        1. 11-13/0134
        2. Change Grandfathered to include in the proposal.
        3. Proposed Resolution: REVISED (GEN: 2013-01-17 02:54:30Z) - Change E.1 Table E-3 note ‘a’ to read: "a The use of channels 34, 38, 42, and 46 was included in the initial 5 GHz rules in May, 2005 and cannot be used after May 2012."
        4. Accepted as amended move to ready to motion. – Motion GEN - H
  3. Presentation from Daniel Cohn – 11-13/102
     1. Title: Clarification on Beacon Transmission Rules
     2. The header needs correction it says doc 49, but an r1 will be posted later.
     3. Discussion –
        1. Question on TGae, the management frames had category stated, did the beacon get classified, and if so, then we should reference it as well here.
        2. TGae specified the timing clearly, so we may want to look at if this should be considered in the resolution.
        3. Discussions on the changes have been ongoing, but there is a question to ask for more time to think about it. Maybe delay until next session…
           1. It was noted that we would not consider it until tomorrow at the earliest.
           2. There is probably not a reference in TGae that needs be cited.
        4. Please check to see if a CID may be related to include in a possible resolution.
        5. Question on the use of the “While”
           1. Replace “while ensuring” with “and shall ensure” as a suggestion.
           2. More discussion on how soon you could do this.
           3. Consider a Shall vs a “shall and a may”.
        6. Proposed text was called out as an alternative, but it was lengthy and not well heard in the large room. Other frame exchanges were also asked about.
        7. Suggestion to take offline and bring back later. Please start the e-mail discussion the reflector.
  4. Comment Resolution
     1. Doc 11-13/0132r0
        1. CID 270 and CID 105 proposals
     2. CID 270
        1. Review the comment
        2. Proposed Resolution: Revise - Make the changes as proposed in 11-12/1256r9.
        3. No objection move ready to motion. – GEN Motion H
     3. CID 105
        1. Review the Comment
        2. Proposed Resolution: Reject. The comment refers to clause 17.3.3 and to the HR PHY, but then the proposed changes mention table 16-2 which belongs to the DS PHY. Assuming the comment referse to the DS PHY and to table 16-2, the commenter doesn’t give a reason why the MPDU length should be changed to 4095. Lack of consistency with other PHYs is not a good enough reason to change the existing language and potentially making existing implementations non compliant. The DS PHY does appear to support the transmission of an 8193-bit MPDU.
        3. No objection move ready to motion. – GEN Motion H
     4. Doc 11-13/0131r2
     5. CID 364
        1. Review comment
        2. Proposed Resolution: Revised, Make changes as documented in 11-13/131r3
        3. Concern over the use of the work “packet”
        4. There was a question of what is “non-HT duplicate formats refer to.
        5. Review definitions of non-HT frames and packets etc.
        6. The idea is to change the second sentence to be consistent even if the word packet is not the best to use.
        7. Move ready to motion with the proposed text – GEN Motion H
     6. CID 260
        1. Review Comment
        2. Proposed Resolution: Revised Add a note to tables 20-30 to 20-44 with the following text: “NOTE: The data rate numbers are rounded to the first digit place purely for presentation purposes”.
        3. Move to ready to motion with the proposed text in r3 – GEN Motion H
     7. CID 233
        1. Review comment
        2. Proposed Resolution: Rejected. No reason for the additional rule – the AP should just advertise the basic rates it supports.
        3. No objection move ready to motion. – GEN Motion H
     8. CID 164
        1. Review the comment
        2. Proposed Resolution: Rejected. The commenter doesn’t indicate specific changes that would satisfy his comment. In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “QoS data frame” and “QoS data MPDU” should be reviewed to see if they are also applicable to “no data” subtypes.
        3. Question on a similar CID (165), but that one was deferred.
        4. Move ready to motion. – GEN Motion H
     9. CID 364
        1. Question on this may be something that is being discussed in TGac, but it was pointed out that it is an TGac Problem not a REVmc problem.
     10. CID 163
         1. Review Comment
         2. Same basic resolution. –
         3. Proposed Resolution: Rejected. The commenter doesn’t indicate specific changes that would satisfy his comment. In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “Data frame” and “Data MPDU” would need to be reviewed to see if they are also applicable to “no data” subtypes.
         4. No objection move ready to motion. – GEN Motion H
     11. CID 162
         1. Review the comment
         2. Same basic resolution. –
         3. Proposed Resolution: Reject The commenter doesn’t indicate specific changes that would satisfy his comment. In general, it seems reasonable to consider all frames with type “data” to be data frames, regardless of the subtype. However to provide a definite answer all occurrences of “data frame” and “data MPDU” would need to be reviewed to see if they are also applicable to “no data” subtypes.
     12. No objection move ready to motion. – GEN Motion H
     13. Concern on the 3 comment resolution being in active voice.
     14. Change “must be” to be “would need to be” reviewed in the resolutions.
  5. CID 122
     1. Review comment
     2. Proposed Resolution: Rejected. Clause 8.2.2 already defines this by specifying: “Reserved fields and subfields are set to 0 upon transmission and are ignored upon reception”
        1. No objection move ready to motion. – GEN Motion H
  6. CID 121
     1. Review Comment
     2. See 8.2.4.1.7 and 10.2.1.1 for understanding the issue.
     3. What about the TDLS state?
        1. The TDLS does not send and ACK to the AP.
     4. Concern that the Powermanagement bit needs to be included in the MAC discussion.
     5. This CID had a note added that this CID121will be grouped with the PM related CIDs.
     6. There are other PM bit comments and we want to ensure to engage all interested parties are involved in the comment resolution discussion.
     7. Note that there was a clarification for the proposed resolution to include text that includes “involving the AP that does not”
  7. New revisions will be posted.
  8. We will reconvene at 4 and start with Dan Harkins document.
  9. Recessed 3:30pm

1. Wednesday, 16 January 2013, PM2
   1. Called to order at 4:04pm by Dorothy Stanley, Aruba Networks.
   2. Review the Agenda
      1. Dan Harkins 11-13-0073,
      2. CNB 8802-2012 comments 11-13-123,
      3. CID 148 11-13-126, and 11-13/136 -- Two presentations on the HEMM topic -
      4. CID 59 – Comment From Kaz – 11-13/135 –
      5. 11-12-1369 is still on for AM2 tomorrow.
      6. Thursday AM2 will being Plaza C
      7. New Requests for agenda
         1. A modified version of the presentation for 11-12/1249 updated in AM2 if we are going to motion it later in the day on Thursday. Insert after Matthew on Thursday
         2. Request to post a doc for CID 229 to be posted, and will be considered on AM2 tomorrow, and CID 59 will be moved to Thursday PM.
      8. Other CIDs maybe discussed, as we have time.
   3. Dan Harkins review Doc 11-13/0073
      1. Title: Clarifications of SAE
      2. Some errors were identified that needed corrected.
      3. There is an error on one line – change “greater or equal to than” to “greater than or equal than”
      4. No discussion or objection. This will be motioned tomorrow.
   4. Dan Harkin – CNB Comments 11-13/123r0
      1. CN1
         1. Review the comment
         2. Proposed resolution: The entities involved in authentication are clearly described in the standard; The analysis in https://mentor.ieee.org/802.11/dcn/11/11-11-1212-00-0jtc-purpose-and-justification-of-wapi.pptx shows that WAPI supports one scenario only; RSN supports the identical scenario identically. The identity of the AP in the one scenario supported by WAPI will be the subject name in the verified certificate used in the EAP-TLS protocol. WAPI is a duplication of a subset of RSN functionality
      2. CN2
         1. Review the comment
         2. Proposed Resolution: The secure channel between the Authenticator and the AS is indeed an essential factor in the authentication procedure for deployments that require a separate, stand-alone authentication server. Not all deployments require a separate, stand-alone authentication server. A single mechanism is not defined in this standard to enable secure mechanisms that are in use in the industry to be employed. Experience over the past decade plus has shown that this flexibility has not limited deployment to large-scale networks. In fact, it should be noted that an external, stand-alone, authentication server is an optional enhancement to allow 802.11 security to scale to large networks.
      3. CN3
         1. Review the Comment
         2. Proposed Resolution: 802.11 frame acknowledgement and retransmission minimizes the loss of M4. In practice, M4 is received at the Authenticator. World-wide, practical deployment of 802.11 technology has shown this is not a problem. If M4 is lost, there is no security issue.
      4. CN4
         1. Review the Comment
         2. Proposed Resolution: the security issues with WEP and TKIP are acknowledged. That is why they are deprecated. Deprecated means, “to express disapproval of”, Hence, WEP and TKIP are not recommended by the standard. In the standard, this is indicated in multiple locations including 3.2, 5.1.2, 11.1.1, and B.4.4.1. TKIP is an optional cipher suite that is part of RSNA (see 4.3.4.3). It was included to provide support for computation constrained devices and had a limited lifespan of 5 years. It is now deprecated but remains in the standard for backwards compatibility reasons. See 11.1.1 and 5.1.2. Additionally, TKIP is prohibited in an HT association as described in clause 11.1.6.
      5. CN5
         1. Review comment
         2. Proposed Resolution: The use of EAP methods enables a variety of credential types to be used, supporting multiple deployment types. This enables use of SIM credentials for example in mobile networks and certificate or user name and password credentials to be used in commercial deployments. RFC 4017 specifies the characteristics of EAP methods that are suitable for 802.11. There are no known security issues with EAP methods that satisfy those characteristics. Not all EAP methods that are satisfactory for use with 802.11 require 20 messages. For instance, EAP-pwd (RFC5931).
      6. CN6
         1. Review comment
         2. Proposed Resolution: No change to the text is required; use of WEP is deprecated in the standard. Deprecated means, “to express disapproval of”, Hence, WEP and TKIP are not recommended by the standard. The weaknesses of WEP have no impact on the security of RSN (aka WPA2)
      7. CN7
         1. Review Comment
         2. Proposed Resolution: Note: This comment is similar to CID 13400, received from the Swiss NB (see https://mentor.ieee.org/802.11/dcn/10/11-10-1284-18-000m-revmb-sponsor-ballot-comments.xls ) in the prior revision ballot.

TGmb considered the comment and provided the resolution below:

REJECTED (EDITOR: 2011-07-14 18:33:32Z) - - A specific version needs to be referenced because of differences between 802.1X-2004 and 802.1X-2010.

The new revision removed a number of details in the description of how the state machines between EAP and EAPOL interacted with each other.

* + - 1. Concerns with the differences in 802.1X-2004 and with 802.1X-2010, in the past we have avoided updating because of the differences.
      2. Change the resolution to Accepted – Thank you for your comment.
    1. CN8
       1. Review Comment
       2. Proposed Resolution: IEEE 802.11 Key Management is described and defined in 8802-11-2012. In clause 11.1.4, P1163 List item a, change from "If an RSNA is based IEEE 802.1X AKM in an ESS an RSNA-capable STA’s SME establishes an RSNA as follows:" to "If an RSNA uses authentication negotiated over IEEE 802.1X in an ESS, an RSNA-capable STA’s SME establishes an RSNA as follows:"

In clause 11.1.4, Page 1164 List item d, change from "If an RSNA is based IEEE 802.1X AKM in an IBSS an RSNA-capable STA’s SME establishes an RSNA as follows:"

to "If an RSNA uses authentication negotiated over IEEE 802.1X in an IBSS, an RSNA-capable STA’s SME establishes an RSNA as follows:"

* + 1. CN9
       1. Review Comment
       2. Proposed Resolution: There is no need to specify a basis of IEEE 802.11-2012 relative to prior ISO IEC versions. ISO IEC 8802-11-2005 is 802.11-2003. The derivation of IEEE 802-11-2012 has been described in various liaison documents to ISO IEC JTC1 SC6, for example 6N15160. The derivation is also shown on page ix of ISO IEC 8802-11-2012.
    2. CN10
       1. Review Comment
       2. Proposed Resolution: No change is required; use of "an RSNA" is correct; "an" is used with acronyms when acronyms start with consonant letters whose pronunciations have vowel sounds.
    3. CN11
       1. Review Comment
       2. Proposed Resolution: The following proposed change will be forwarded to the technical editor for consideration. P2675, List item e, change from "open system authentication" to "Open System authentication".
    4. CN12
       1. Review comment
       2. Proposed Resolution: The following proposed change will be forwarded to the technical editor for consideration In 11.3.1, P1174, change from "supplicant" to "Supplicant" (2 instances) Also 11.5.1.3.4 P1222 (2 instances)
    5. CN13
       1. Review comment
       2. Proposed Resolution: The following proposed change will be forwarded to the technical editor for consideration Change from "authenticator" to "Authenticator" at the cited locations (note 11.5.1.3.4 not 11.5.1.3.3).
    6. There are some instances of authenticator that are proper nouns and some are not, so they should not be capitalized. So we may want to change the comment.
       1. We are concerned that some of the changes may not make it to the final draft, so that could be a problem.
    7. This will be considered for motion tomorrow.
  1. Graham Smith - presentation of Doc 11-13/126r1 – CID 148
     1. Title: “802.11mc HEMM”
     2. Discussion of the two proposals – Remove HEMM or not.
     3. How many implementations actually use HEMM. The removal of HEMM would cause some implementations to be non-compliant.
     4. Proposal A -
* **Remove all references to HEMM in the Standard**
* **Rewrite the last para of 9.19.3.5 as follows:**

**“HCF contention-based channel access shall not be used to transmit MSDUs belonging to an established TS (with the HC’s acceptance of the associated TSPEC), unless the polled STA:**

**·         Utilized the full TXOP provided by the HC, and**

**·         At the completion of the TXOP provided by the HC  the STA has more MPDUs to send.**

**If both these conditions have been met, this STA may transmit MPDUs belonging to an established TS using contention-based channel access, irrespective of the value of the ACM bit in the corresponding access category. When this STA sends frames belonging to a TS using contention-based channel access, it shall encode the TID subfield in the QoS Data frame with the TID associated with the TS.  If the STA transmits MSDUs belonging to an established TS using contention based channel access, the STA should request modification of the associated TSPEC to an HCCA schedule that allows this TS to be serviced entirely using TXOPs in a CFP.”**

* + 1. Proposal B –
* Retain HEMM in the Standard
* Leave the last para of 9.19.3.5 as is except last sentence:

“When the AP grants a TSPEC with the Access Policy subfield equal to HEMM and if the corresponding AC needs admission control, the AP shall include the medium time that specifies the granted time for EDCA access in the ADDTS Response frame (see Annex N 2.2).”

* Add text to Annex N 2.2 that provides some recommendations on what the Medium Time field should be in this case. N.2.2.1 HEMM Medium Time

When the AP grants a TSPEC with the Access Policy subfield equal to HEMM and if the corresponding AC needs admission control, it is recommended that the medium time that is included in the ADDTS Response frame has a value that is 1/10th of the value that is derived using the procedure described in N 2.2”

Note: the 1/10th value is open to discussion.

* + 1. There was discussion on the validity of the use of the feature or if it was there for just the “cheaters”.
    2. Straw Poll: Proposal A or Proposal B.
       1. A = 3 B = 4 No Preference = 9
    3. Discussion of whether we should pick a particular feature for deprecation. Some features are there from very long time before they are actually implemented, but we may want to be careful for why we would.
       1. More thought should be given before we would choose deprecate, Option A or Option B.
  1. CID 362
     1. Review the comment
     2. Proposed Resolution: Revised. Delete the referenced sentence, and delete the following sentence, which is also just more hints about behavior described elsewhere.
     3. No Objection – mark ready for Motion.
  2. Recessed until Thursday AM2.

1. Thursday, 17 January, 2013 – AM2
   1. Called to order at 10:30am by Dorothy Stanley, Aruba Networks
   2. Review the Agenda
      1. MAC: 42, 169, 282, 284, 7,8,9,16
      2. ED: 99., 366, 236, 274
      3. Carlos Aldena - 11-12-1249r4
      4. Motions -= Weds, 11-13-131, 132, SAE, CNB
      5. Brian Hart - CID 184 : 11-13-157
      6. Presentation 11-12-1369
      7. For Thursday reviewed list
      8. **Thursday PM1 – Plaza C**
         1. GEN: 24, 297, 69, 282
         2. GEN: 54, 55, 41
         3. GEN: 17, 19, 20
         4. Comment resolutions
   3. MAC comments
      1. CID 169
         1. Review Comment
         2. Proposed Resolution; Revised Adopt the changes specified in 11-12/1256r11.
         3. No objection- ready for motion – MAC Motion E
      2. CID 42
         1. Review Comment
         2. Proposed Resolution: Revised, Make the changes as proposed in 11-12/1256r11.
         3. No objection- ready for motion – MAC Motion E
      3. CID 282
         1. Review comment
         2. Discussion: possible proposal- Revised. It seems the current convention is, "When dot11<advanced\_feature> is true, dot11<foundational\_feature> shall be true." Therefore, replace the referenced sentence with, "When at least one of dot11RDResponderOptionImplemented, dot11MCSFeedbackOptionImplemented or dot11AlternateEDCAImplemented is true, either dot11HTControlFieldSupported or dot11VHTControlFieldSupported shall be true."
         3. Note, the referenced text (and this change text) assumes 802.11ac. Perhaps this can be fixed in TGac instead of REVmc?
         4. Proposed Resolution: Reject. Will forward this to TGac, since they will modify this sentence anyway, and we don't want to collide, so they can just fix the wording at the same time.
         5. The problem is that the needed change is for a field that does not exist in REVmc now, so we cannot action that at this time. When TGac is rolled-in, then we could act it.
         6. Disagreement on the ordering of the statement and the construct that has a long list of possible parameters to be revisited in how they are presented.
         7. Updated Proposed Resolution: Reject. This depends on 11ac, and is out of scope at this time.
         8. No objection- ready for motion – MAC Motion E
      4. CID 284
         1. Review Comment
         2. There are some open issues on this one. More work will need to be checked.
      5. CID 7
         1. Review Comment
         2. Discussion: Sentence is: "If a key hierarchy already exists for this STA belonging to the same mobility domain (i.e., having the same MDID), the R0KH shall delete the existing PMK-R0 security association and PMK-R1 security associations."
         3. Proposed Resolution: Reject. There can be multiple PMK-R1 associations.
         4. No objection- ready for motion – MAC Motion E
      6. CID 8
         1. Review Comment
         2. Proposed Resolution: Revised. Change it to "is not true"
         3. No objection- ready for motion – MAC Motion E
      7. CID 9
         1. Review Comment
         2. Proposed Resolution: Change "This procedure derives the PMK-R1 from PMK-R0, and R1KH-ID (as described in 11.6.1.7.4), for the R1KH identified by R1KH-ID, and creates PMK-R1 security association."

to:

"From the PMK-R0, and the R1KH-ID (as described in 11.6.1.7.4) for the R1KH identified by R1KH-ID, this procedure derives the PMK-R1 and creates a PMK-R1 security association."

* + - 1. No objection- ready for motion – MAC Motion E
    1. CID 16
       1. Review Comment:
       2. Proposed Resolution: Reject: We have not removed MLME-RESOURCE-REQUEST.confirm, and MIC-Verified is still a valid transition predicate. The problem can't be seen.
       3. No objection- ready for motion – MAC Motion E
  1. Editor Comments - ED: 99., 366, 236, 274
     1. CID 99
        1. Review comment
        2. Proposed Resolution: REVISED –

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.

Change "authentication request frame" to "request carried in an Authentication frame" with adjacent rewording as necessary.

Change "authentication response frame" to "response carried in an Authentication frame" with adjacent rewording as necessary.

at 1043.10 change "deauthentication" to "Deauthentication".

at 1043.15 change "deassociation" to "Disassociation"

at 436.40 change "action" to "Action"

at 1370.01 change "action frame" to "frame"

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

Change "SAE authentication frame" to "SAE Authentication frame".

Change "[IEEE] [Std] [802.11] authentication frame" to "Authentication frame".

Globally change as follows:

EAPOL-Key Frame --> EAPOL-Key frame

IEEE 802.1X EAPOL-Key frame --> EAPOL-Key frame

802.1X EAPOL-Key frame --> EAPOL-Key frame

EAPOL-Key message --> EAPOL-Key frame

EAPOL-Key Message --> EAPOL-Key frame

EAPOL-Key Request frame --> EAPOL-Key request frame

EAPOL-Key request message --> EAPOL-Key request frame

EAPOL request message --> EAPOL-Key request frame

IEEE 802.1X EAPOL frame --> EAPOL frame

EAPOL message --> EAPOL frame

EAPOL-Start message --> EAPOL-Start frame

EAPOL-Start packet --> EAPOL-Start frame

IEEE 802.1X EAPOL-Start message --> EAPOL-Start frame

EAP authentication frame --> EAP message

----------------------------------------------------

(note, changes from MarkH, Jouni, MarkR below. This line is not part of the comment resolution.)

-------------------------------------------------------------------

Add two definitions in subclause 3.2:

“EAPOL-Key frame, EAPOL-Start frame: A Data MPDU which carries all or pat of an 802.1X EAPOL PDU of the mentioned type.

EAPOL-Key request frame: A Data MPDU which carries all of part of an 802.1X EAPOL-Key PDU with the Request bit in the Key Information field in the IEEE 802.11 key descriptor set to one.”

Add two sentences to the end of the second paragraph of subclause 4.2.5: "Within 802.11, EAPOL PDUs are carried as MSDUs within one or more Data MDPUs, as described in 802.1X-2004, clause 7. Within this Standard, Data MPDUs used for this purpose are generally referred to as EAPOL-Key frames, EAPOL-Key request frames and EAPOL-Start frames."

Change the start of the sentence in 4.10.2, "IEEE 802.1X authentication frames are transmitted in IEEE 802.11 data frames ..." to "IEEE 802.1X EAPOL PDUs are transmitted in one or more IEEE 802.11 Data MPDUs ..."

In the table in subclause 6.3.22.1.2, change "EAPOL-Key frame" to "EAPOL PDU (per 802.1X-2004 clause 7)"

In 10.13, change, “with the value IGTK for the Key Type field in the Key Descriptor element” to “with the value IGTK for the Key Type subfield in the Key Information field in the IEEE 802.11 Key Descriptor”

In 11.5.8, 6th paragraph, change “EAPOL frames” to “EAPOL-Start frames and EAPOL-Key frames”

In 11.6.2, replace the paragraph, “The RSNA key descriptor used by IEEE Std 802.11 does not use the IEEE 802.1X key descriptor. Instead, it uses the key descriptor described in this subclause.” with “The RSNA key descriptor used by IEEE 802.11 maps to the IEEE 802.1X Key Descriptor as described in this subclause.”

In 11.6.2, replace”key descriptor version” with “Key Descriptor Version”. (this is in the “4-Way Handshake Message 3” bullet, on p1252 of 802.11-2012).

* + - 1. There was an action item to check on making a rule, but that has not been done, it would be better to take these reviewed changes as an improvement, and let the other issue be done later.
      2. How much as already been included in the speculative edit?
         1. There was 3 different adds to this CID, so the editor will need to review and ensure that all is properly actioned.
      3. No objection- ready for motion –
    1. CID 236
       1. Review comment
       2. We had done a straw-poll on the conference call and thought to reject it.
       3. There was a second poll that suggested that checking may be a good activity, but no one signed up to do it.
       4. Proposed Resolution: Rejected. The commenter has not indicated an issue to resolve (i.e. current usage "infrastructure BSS" is unambiguous) nor specific changes to be made.
    2. No objection- ready for motion –
    3. CID 274
       1. Review comment
       2. Proposed Resolution: Rejected: For practical reasons, it is difficult to use Unicode characters in figures and the MIB. While accepting that there are differences in conventions in figures (e.g. use of <> vs !=), the current use is unambiguous.

The "<<" Unicode character is not present in the fonts conventionally used in this document. To insert it from another character set creates a complication and risk of failure to embed properly that is unnecessary.

* + - 1. No objection – mark ready for motion
    1. CID 366
       1. Review Comment
       2. Proposed Resolution: Revise - make global change and insert following statement in 1.4: “Reserved Field/subfields are set to 0 on transmit (unless otherwise specified) and ignored on receive.”

At 666.35 delete ", and are set to 0 on transmission and ignored on reception".

* + - 1. There was an objection and discussion to make a change.
      2. Proposed Resolution changed to “Reject – It is not possible to create a global statement without creating conflicts with PHY clauses, therefore these statements are needed in clauses, except clause 8.
      3. – mark ready for motion.
  1. Carlos – review changes in 11-12/1249r4
     1. Review changes from what was presented yesterday.
     2. Change in the definition of “Fine Timing Measurement”
     3. Changes were made in the motivation section.
  2. Motions
     1. **Motion 12**
        1. Approve comment resolutions to comments in Document 11-12-1082-14 , “Ready for Motion” tab CID 323 (Tuesday Jan 15)
        2. Moved: Adrian Stephens, 2nd Mark Hamilton
        3. **Motion #12 Passes: by unanimous consent.**
     2. **Motion 13**
        1. Approve comment resolutions to comments in Document 11-12-1394-07 “Motion Gen H” tab (Wednesday Jan 16, 11-13-132, 131)
        2. Moved: Jon Rosdahl, 2nd Mark Hamilton
        3. **Motion #13 Passes: 15-0-0**
     3. **Motion 14**
     4. **Incorporate the text changes indicated in** [**https://mentor.ieee.org/802.11/dcn/13/11-13-0073-01-000m-sae-clarifications.docx**](https://mentor.ieee.org/802.11/dcn/13/11-13-0073-01-000m-sae-clarifications.docx) **into the TGmc draft and Approve the comment resolutions in** [**https://mentor.ieee.org/802.11/dcn/13/11-13-0123-01-000m-iso-jtc1-sc6-8802-11-2012-comments.xls**](https://mentor.ieee.org/802.11/dcn/13/11-13-0123-01-000m-iso-jtc1-sc6-8802-11-2012-comments.xls) **and incorporate the indicated text changes into the TGmc draft.**
        1. Move Mark Hamilton, 2nd Stephen McCann
        2. **Motion #14 passes: 14-0-0**
     5. **Motion 15**
        1. Resolve CIDs 46, 47, 48 and 354 as “Revised” with a resolution of “Incorporate the text changes in https://mentor.ieee.org/802.11/dcn/12/11-12-1249-04-000m-802-11-2012-cid-46-47-48.doc ”
        2. Moved: Carlos Aldana, 2nd Adrian Stephens
        3. **Motion #15 passes: 13-0-2**
  3. Brian Hart review Brian Hart - CID 184 : 11-13-157
     1. Review the document and the proposed changes.
     2. No Questions or concerns were raised.
     3. Proposed Resolution: REVISED (MAC: 2013-01-17 19:39:26Z) - Revised. Adopt changes in 11-13/157r0.
     4. Move into MAC Motion E Ready for Motion
  4. Comment Processing
     1. CID 352 and 353
        1. Include in MAC motion E with the other set.
        2. Proposed Resolution: REVISED (MAC: 2013-01-17 19:41:07Z) – Incorporate the text changes in 11-12/1249r4CID
  5. Matthew Fischer review 11-12-1369r1
     1. Review the document
     2. Question on Public Trigger frame with a No-Ack Policy set
        1. Change to an “AP acknowledges as appropriate,” from “AP shall acknowledge” as some instance it is not supposed to acknowledge.
     3. There is the “More Data” bit that is in the Control Frames, so the presentation may need some more work.
        1. Make a change to Figure 8-12
        2. Also need to adjust the description of when it can be used
        3. Provide a clear usage of when it can be used. In 8.2.4.1.8, more usage of the BU in place of “frames”.
     4. The definition is not needed to be corrected of an individually addressed bufferable unit (BU), as it was deleted from the proposal.
     5. Are there other uses of BU that need to be added?
        1. Not that was known.
     6. Primarily the main change was changing the phrase “data or bufferable data frame” to BU.
     7. Question on if 4 frames or 4 MSDUs for APSD in the EOSP.
        1. Discussion on the confusion of the use of frame vs. MSDU.
     8. Concern of the EOSP bit and when it is or is not included. How to signal the end of a period was discussed and debated.
     9. Discussion on if an AMPDU or Control Frame would need a QoS-Null to indicate the end of the service period as it carries the EOSP bit and the BlockAck does not.
     10. Check 8.6.3 – 2nd paragraph – has the ACK policy not the end of service period.
     11. There is also an issue with how to count the 4 frames, and how to constrain the service period.
     12. Discussion on when the use of AMPDU causes an issue. Forcing the QoS-NULL can cause an inefficiency, but does provide a clear indication. The problem is that the AP and the STA are not in synch with the Power save mode.
     13. The rational for 2-4-6 value is to limit the amount of processing required or storage issue, this allows for control of the resources.
     14. A new revision will be posted to the server for consideration.
  6. Recess until after lunch for the added slot – start again at 1:30pm in Plaza C
     1. Recess at 12:30

1. Thursday, 17 January 2013 PM1
   1. Called to order at 1:32 by Dorothy Stanley, Aruba Networks
   2. Review Agenda

GEN: 24, 297, 69, 282

GEN: 54, 55, 41

GEN: 17, 19, 20

Comment resolutions

* + 1. No objection to plan for the slot.
  1. GEN 24, 297, 69, 282 Comments:
     1. CID 24
        1. Review Comment
        2. Proposed Comment: REVISED (GEN: 2013-01-17 21:42:46Z)1) RFC5869 is normative, so its listing belongs in Subclause 1.2. 2) RFC 2409 is informative, so its listing belongs in the Bibliography.
     2. CID 297
        1. Review Comment
        2. Proposed Comment: REJECTED (GEN: 2013-01-17 21:49:10Z) -, a Measurement threshold is not required.
     3. CID 69
        1. Review the comment
        2. Proposed Resolution: REJECTED (GEN: 2013-01-17 21:52:05Z) - Will forward this to TGac, since they will modify this sentence anyway, and we don't want to collide, so they can just fix the wording at the same time.
  2. GEN 55, 54, 41
     1. Dorothy has prepared a submission 11-13/0149r0
     2. CID 55
        1. Review comment
        2. Proposed Resolution: REVISED (GEN: 2013-01-17 21:59:35Z) - make the changes identified for CID 55 in 11-13-0149r0.
     3. CID 54, 41
        1. Review the comment
        2. They are the same comment 54 was cut off and 41 has the full comment.
        3. There are 4 problems cited.
        4. – Review 7.3.5.11.3 – while the HT PHY statements should be in the HT PHY section, this is not a simple fix it one way type problem.
           1. The first sentence in this clause is not quite right.
           2. If we make it “primary channels” instead of “channels” then that would make it more correct.
           3. Discussion on. whether it is already defined per PHY basis.
        5. Some of the issues may be addressed in 11-12/1256 and in 11-13/0063.
     4. Proposed resolution: Revise: Make the changes as identified for CID 41 in 11-13-0149r1.
  3. GEN: 17, 19, 20
     1. These three CIDs are MIB comments from Diane Lacey
     2. CID 17, 19, 20
        1. Review the comment
        2. Proposed Resolution: Rejected dot11RegDomainsSupportedTable has not been superseded.
  4. CID 206, 176, 221
     1. Security type comments
     2. CID 206
        1. Review comment
        2. Proposed resolution: REJECTED (GEN: 2013-01-17 22:28:23Z) - Yes, it's the same PTK and the same Key ID
     3. CID 176
        1. Review comment
           1. There was a question if the Commenter meant SN or PN
           2. It was thought it was Sequence number
           3. Discussion on the type of Denial of Service attack.
           4. The Sequence number is included in 1208 – Sequence control field.
           5. It is only a DOS if you know the SN to use.
        2. Propose Resolution: Reject
           1. Get the reason later.
     4. CID 221
        1. Review comment
        2. Proposed Resolution: REJECTED (GEN: 2013-01-17 22:45:06Z) - 8.4.2.57 Management MIC element
        3. The Key ID field identifies the IGTK used to compute the MIC. Bits 0­11 define a value in the range 0­
        4. 4095. Bits 12­15 are reserved. The IGTK Key ID is either 4 or 5. The remaining Key IDs are reserved.
        5. The IGTK gets set with the MLME-SETKEYS.request and that primitive is emitted after successful
        6. association. So the IGTK Key ID is fixed for an association, which makes sense because if one were to dynamically change between 4 and 5 then the recipient would get a frame it does not know how to verify
        7. since it doesn't have a key set for that Key ID.
     5. CID 205
        1. Review comment
        2. Proposed Resolution: Reject; the Commenter does not identify a problem to be solved.
  5. GEN Comments
     1. CID 264, 244, 207
        1. Review Comments
        2. Proposed Resolution: Reject: The Commenter does not indicate the specific changes to satisfy his concern.
     2. CID 181
        1. Review comment
        2. See 20.3.18 –
        3. Table 8-17 does not have 40MHz entries
        4. Discussion on if a general statement could be made, but the particular statement was necessary in clause 20 for this case.
        5. Proposed Resolution: Revise: Add to 20.3.18 – “The Slot time for 40MHz channel spacing shall be the same as that for 20MHz Channel spacing.”
     3. CID 174
        1. Review Comment
        2. Answer to question is in 9.3.2.8 Ack
        3. Proposed Resolution: Reject – it cited in 9.3.2.8 2nd paragraph.
     4. CID 166
        1. Review Comment
        2. Assign to Graham for presentation – 11-13-14 and 11-13-15
     5. CID 151
        1. Review Comment
        2. This may need more research
        3. Assign to Mark Rison
     6. CID 149
        1. Review Comment
        2. Clause 10.5.2.3 –
        3. See Clause 10.5.4 – Error recovery
        4. Proposed Resolution: Revise

In 9.21.2 Add a sentence to the end of the first paragraph “The block Ack Timeout Value field in the ADDBA Request frame is advisory and may be changed by the recipient for an ADDBA set up between HT STAs

In 9.21.2 Add to the end of the first sentence of the 3rd paragraph “and the Block Ack timeout that is used.”

Move the last paragraph in 10.5.4 to 9.21.2 after the 5th paragraph.

* + - 1. Move to “GEN-Thurs” and ready for motion.
    1. CID 123
       1. Review Comment
  1. Ran out of time
     1. Consider MAC/Editor/Gen motions that we can.
  2. Recess until 4pm – back in Regency F

1. Thursday, 17 January 2013 PM2
   1. Called to order at 4:06pm by Dorothy Stanley, Aruba Networks
   2. Review final part of agenda
      1. Motions: MAC, GEN, ED, 1369?
      2. LB Motion
      3. Plans for March
      4. Assign remaining unassigned comments
      5. Comment Resolutions –

CID 166 11-13-14, 11-13-15;

CID 229

* 1. Motions
     1. **Motion 16**

Approve comment resolutions to comments in Document 11-12/1189r14:

“Motion MAC-E” tab ( Weds, Thurs MAC comments)

* + - 1. Moved: Mark Hamilton, 2nd David Hunter
      2. **Motion #16 Passes 9-0-0**
    1. **Motion 17**

Approve comment resolutions to comments in Document 11-12-1082-16 , “Ready for Motion” tab CID 99, 236, 282, 366, 274, 272 (Thursday Jan 17)

* + - 1. Moved: Adrian Stephens, 2nd David Hunter
      2. **Motion #17 Passes:10-0-0**
    1. **Motion 18**

Approve comment resolutions to comments in Document 11-12-1394-08

“GEN-Thurs PM” tab (Thursday Jan 17)

* + - 1. Moved: Jon Rosdahl, 2nd David Hunter
      2. **Motion #18 Passes: 10-0-0**
    1. **Motion 19**

Instruct the TGmc editor to prepare P802.11mc D1.0 from P802.11mc D0.7 according to changes approved by TGmc at this session and

Approve a 30 day working group technical letter ballot asking the question “Should P802.11mc\_D1.0 be forwarded to Sponsor Ballot?”

* + - 1. Moved: Mark Hamilton, 2nd Graham Smith
      2. **Motion #19 Passes 10-0-0**
  1. **Plans for March**
     1. **March Objectives**
        1. Comment resolution
     2. **Conference Calls 10am Eastern 2 hours**
        1. Feb 22
        2. March 11
        3. Discussion of Possible telecons –
        4. Agenda -- Hear outstanding Comment Presentations.
     3. **Ad-Hoc meeting – none**
     4. **Schedule review**
        1. **Review TG REVmc Plan of Record**
        2. **Comment Resolution is predicted to go until July, but roll-in of TGad will take place as soon as possible, so it will be done during the ballot period to prepare a D1.01ad.**
        3. **There will be Telecons between sessions between March and May and then D2.0 in May/July timeframe.**
  2. GEN Comment assignments
     1. CID 187
        1. Similar to CID 342 but asks a different question on the same line.
        2. Resolution from CID 342 was “Change the status from "CF16:O" to "CF16:M."”
        3. Proposed Resolution : Revised - Change the status from "CF16:O" to "CF16:M
     2. CID 301 –
        1. Topic is WDS
        2. Assign to Jouni
     3. CID 208
        1. Review Comment
        2. Requests separate TPMF on transmits
        3. Assign to Mathew Fischer
     4. CID 123
        1. Review comment
        2. Assign to Mark Rison
  3. Ed Comment Assignment
     1. Assign 9 additional (total 12) Editor group comments to Mark Rison
  4. MAC Comment assignment
     1. Assign the Mark Rison comments to Mark Rison
     2. Default Assign to Commenter in general
     3. Would like to look at CID 31 here.
     4. CID 31
        1. Review the comment
        2. PSMP is not well thought of by some of those in attendance. There is not a lot of support for this feature.
        3. Question: PSMP frames are not part of an FMS stream. But, could this be trying to say the PSMP sequence/burst started by this PSMP frame is not carrying part of an FMS stream?
        4. PSMP is intended for VOIP transmissions
        5. FMS is delivery for multicast traffic
        6. Deployment is not thought to be very great.
        7. This section will be edited later, and so the hope was to remove this to make this section easier to work out.
        8. Assign to Qi Wang
  5. **Motion 20**

Resolve CID 187 as “revised” with the resolution of “Change the status from “CF16:O” to “CF16:M”

* + - 1. Moved Jon Rosdahl, 2nd David hunter
      2. **Motion #20 Passes: 9-0-0**
  1. CID 360
     1. This is from Adrian, and would be assigned to him by default.
     2. Assign to Matthew Fischer
     3. Not that TGac has addressed this comment.
     4. Proposed Resolution: Rejected with the resolution of “This issue has been resolved in 11ac.”
  2. **Motion 21**
     1. Resolve CID 360 as : Rejected with the resolution of “This issue has been resolved in 11ac.”
     2. Moved: David Hunter, 2nd Graham Smith
     3. **Motion #21 Passes by unanimous consent.**
  3. CID 166 – Doc 11-13-14 and 11-13-15
     1. Review Doc 11-13-14
     2. Topic EDCA TXOP Limits
     3. Discussion on how to set the TXOP Limits – in the IBSS case there is no AP, so the STA will use the default values.
     4. TXOP Limits were something setup prior to aggregation, so now that we have aggregation, there are cases where unfairness appears.
     5. Straw Poll:
        1. Do you agree with the proposal to change the default TXOP Limits in Table 8-106?
        2. Yes –3 No –2 , “Need more time to study/think about it”-6
  4. CID 176
     1. Review the Comment
     2. Review 8.2.3 General Frame Format – Sequence Control Field
     3. Discussion of how the SN is used in general
     4. An attack of this nature would be very difficult.
  5. **Motion #22**

Resolve CID 176 as “Rejected” with a resolution of “Yes, frames can be lost; however mounting the denial of service attack is difficult and there are easier ways. Hardware changes would be required to implement the commenter’s proposed change, in addition to requiring a new cipher mode to be negotiated”

* + 1. Moved: Dan Harkins, 2nd Mark Hamilton
    2. **Motion #22 passes by unanimous consent**
  1. TG REVmc Adjourned at 5:53pm by Dorothy Stanley, Aruba Networks.

**References:**

**Closing Report:**

<https://mentor.ieee.org/802.11/dcn/13/11-13-0165-00-000m-tgmc-closing-report.pptx>

**Agenda Slide Deck:**

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-10-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-09-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-08-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-07-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-06-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-05-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-04-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-03-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-02-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-01-000m-agenda-january-2013.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0093-00-000m-agenda-january-2013.ppt>

**Minutes Approved this Session:**

<https://mentor.ieee.org/802.11/dcn/12/11-12-1435-03-000m-minutes-for-tg-revmc-teleconferences-nov-2012-jan-2013.docx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1225-00-000m-minutes-for-november-plenary-san-antonio.docx>

**Editor Reports:**

<https://mentor.ieee.org/802.11/dcn/13/11-13-0095-01-000m-editor-reports.ppt>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0095-00-000m-editor-reports.ppt>

**Comment Database:**

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-17-0000-revmc-pre-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-16-0000-revmc-pre-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-15-0000-revmc-pre-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-14-0000-revmc-pre-ballot-comments.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1082-13-0000-revmc-pre-ballot-comments.xls>

**GEN AdHoc Comment Files:**

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-09-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-08-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-07-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-06-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-05-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1394-04-000m-gen-adhoc-preballot-comment-collection-resolutions.xlsx>

**MAC AdHoc Comment Files:**

<https://mentor.ieee.org/802.11/dcn/12/11-12-1189-14-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1189-13-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1189-12-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1189-11-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1189-10-000m-mac-adhoc-pre-ballot-comment-collection-resolutions.xls>

**ISO-JTC1-SC6 Comments:**

<https://mentor.ieee.org/802.11/dcn/13/11-13-0123-01-000m-iso-jtc1-sc6-8802-11-2012-comments.xls>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0123-00-000m-iso-jtc1-sc6-8802-11-2012-comments.xls>

**Comment Resolution presentations:**

<https://mentor.ieee.org/802.11/dcn/13/11-13-0149-01-000m-cids-54-and-55.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0149-00-000m-cids-54-and-55.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1369-02-000m-bufferable-unit-additions.docx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1369-01-000m-bufferable-unit-additions.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0126-03-000m-hemm-discussion-and-proposal.pptx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0126-02-000m-hemm-discussion-and-proposal.pptx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0126-01-000m-hemm-discussion-and-proposal.pptx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0126-00-000m-hemm-discussion-and-proposal.pptx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0136-00-000m-cid148-hemm.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0135-00-000m-cid59-resolution-proposal.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0157-00-000m-edcaf.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0134-00-000m-e-3-japan-a-cid-298.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0134-00-000m-e-3-japan-a-cid-298.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0131-04-000m-revmc-preballot-resolutions-cids-121-122-162-163-164-233-260-364.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0131-03-000m-revmc-preballot-resolutions-cids-121-122-162-163-164-233-260-364.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0131-02-000m-revmc-preballot-resolutions-cids-121-122-162-163-164-233-260-364.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0131-01-000m-revmc-preballot-resolutions-cids-121-122-162-163-164-233-260-364.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0131-00-000m-revmc-preballot-resolutions-cids-121-122-162-163-164-233-260-364.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0132-01-000m-revmc-preballot-resolutions-cid-270-105.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0132-00-000m-revmc-preballot-resolutions-cid-270-105.docx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1229-06-000m-revmc-adrian-pre-ballot-resolutions.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1229-05-000m-revmc-adrian-pre-ballot-resolutions.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1249-04-000m-802-11-2012-cid-46-47-48.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1249-03-000m-802-11-2012-cid-46-47-48.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0144-00-000m-aslottime-confusion-cid-229.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0102-01-000m-clarification-on-beacon-transmission-rules.docx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0073-01-000m-sae-clarifications.docx>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1256-11-000m-lb187-cid40-43-56-96-cca.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1256-10-000m-lb187-cid40-43-56-96-cca.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0072-01-000m-client-positioning-using-timing-measurements-between-access-points.pptx>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0063-03-000m-cid40-43-56-96.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0063-02-000m-cid40-43-56-96.doc>

<https://mentor.ieee.org/802.11/dcn/13/11-13-0063-01-000m-cid40-43-56-96.doc>

<https://mentor.ieee.org/802.11/dcn/12/11-12-1431-01-000m-delete-pmd.docx>