IEEE P802.11
Wireless LANs

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| Minutes of REVmd AdHoc in Piscataway NJ |
| Date: 2017-12-08 |
| Author(s): |
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|  |  |  |  |  |

Abstract

Minutes of REVmd AdHoc in Piscataway December 7th and 8th, 2018

1. **2018 December 07 REVmd AdHoc in Piscataway 9-11:30am ET**
	1. **Attendance**
		1. In Person:
			1. Dorothy STANLEY (HPE)
			2. Mark HAMILTON (Arris/Ruckus)
			3. Adrian STEPHENS (Intel)
			4. Jon ROSDAHL (Qualcomm)
			5. Joseph LEVY (Interdigital)
			6. Kathryn Bennett (IEEE)
		2. On Bridge:
			1. Emily QI (Intel)
			2. Manish KUMAR (Marvell)
			3. Edward AU (Huawei)
			4. Graham SMITH (SR Technologies)
	2. **Called to order** at 9:10am ET by the Chair, Dorothy STANLEY (HPE)
	3. Attendance recorded
	4. Patent Policy Reviewed
		1. No items noted
		2. Reviewed Participation information
	5. Review Agenda

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1.       Ad-hoc Thursday Dec 7, 2017 9am – 11:30am

a.       Obsolete comments: **CIDs 57, 58, 61, 70 in 11-17-1137 – text prepared, pending review – Menzo WENTINK**

                                                               i.      CID 57    BlockAckReq

                                                             ii.      CID 58    Basic BlockAck variant

                                                            iii.      CID 61    Non-HT block ack

                                                            iv.      CID 70    HT-delayed block ack

b.       Obsolete comments: **CIDs 59 and 62 in 11-17-1518 – text prepared, pending review  – Menzo WENTINK**

                                                               i.      CID 59    DLS

                                                             ii.      CID 58    STSL

c.        Obsolete comments: **CID 72 in 11-17-1261 – text prepared – Annex G**

d.       Graham SMITH – CID 282 in 11-17-987

e.       Mark RISON CIDs

 2.       Thursday 1pm – 3pm

 a.       Matthew FISCHER: <https://mentor.ieee.org/802.11/dcn/17/11-17-1192-08-000m-cr-esp.docx>

b.       Update: <https://mentor.ieee.org/802.11/dcn/17/11-17-1738-00-000m-setting-ccf0-for-20-40mhz-bss-bw.docx>

c.        Mark HAMILTON CIDs

 3.       Thursday 3:30pm – 5pm

a.       GEN CIDs

 4.       Friday Dec 8, 2017 9-11:30am – Security CIDs and topics

a.       CID 95

b.       Review of M. Vanhoef paper suggestions, see <http://www.ieee802.org/11/email/stds-802-11-tgm/msg01235.html>

c.        Additional security CIDs

 5.       Friday 1-3pm

a.       CID 5 – Chris HANSEN

b.       Additional CIDs

* + 1. No objection to the proposed agenda
	1. **Review doc 11-17/1137r4** – Menzo edits in Graham’s Document.
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1137-04-000m-resolutions-for-obsolete-blockack.docx>
		2. Review proposed edits from Menzo
		3. CID 61 and 70 (MAC)
			1. See page 154.25 to 154.29 for context – deleting definition
		4. For 1394.33 – need to “accept” the change to not delete the word “block”. An R5 will be made with that change accepted.
		5. Similar issue for L38, but the change suggested is incorrect. The best solution would be to delete the entire row.
		6. Make a new instruction for L38 –
		7. We are trying to remove “Non-HT block ack agreement” and “HT-delayed block ack agreement”.
		8. Review context at 1802.13
		9. We want to delete the first, third and fourth row.
		10. Need to consolidate the editor instructions to be together.
		11. Change the instructions to Delete 1394 row 30, 33, 38
		12. Continue reviewing the proposed changes.
		13. On page 1421, in Note 1 – delete “or an Ack Frame”, and “or HT-delayed “ and “respectively.”
		14. Complete the review of the doc
		15. p1536.34 should be 10.24.8 (not “.98”)
		16. p1524.19 – discussion on removing the full subclause.10.24.3 – we will need to possibly pull the subclause apart to define the GCR info better.
			1. More work will need to be done on this clause
			2. Also check 10.24.2 for similar issues.
			3. Need to see if the GCR is unique here, otherwise we could delete the entire clause.
		17. p784 – delete row 21, or we can add a note to indicate what the old value 0 was used for and have the 1 be defined.
		18. P784.21 full stop after “1” and then Add a “NOTE: The Block Ack Policy subfield could be set to either 1 or 0 in previous revisions of the standard.”
		19. ACTION ITEM #1: Graham and Menzo to continue review of document.
		20. P1789.17 – reference to Block Ack Policy – may need to be adjusted as well.
			1. We need to find all the “immediate block ack policy” that do not have HT in front to address the removal of non-HT immediate.
			2. We may want to delete the full paragraph here at line 17.
		21. p1802 table 11-5 – this indicates that the Block Ack Policy is sometimes 0 (for DMG STAs) so the note we suggested before is not correct. The sentence at 784.21 should also address the case of the DMG STAs.
		22. Note Graham is asked to harmonize the changes across the various locations considering the DMG STA requirements and removal of the two features.
			1. DMG STA description did not update the info on page 784 to indicate their usage. This will have to be added
	2. **Review doc 1518 – Graham SMITH**
		1. No objections -
	3. **Review document 11-17/1261** Graham SMITH
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1261-01-000m-resolution-for-obsolete-annex-g.docx>
		2. There are a small set of changes that remove Annex G
		3. CID 72
			1. Review comment
			2. Review the references using “see Annex G”
			3. Discussion on how “frame exchange sequence” is defined, and how it was defined in the main body of the draft vs only in Annex G.
			4. Not clear consensus on removing Annex G, and that it would cause more comments in future ballots. Also we need to have someone work on updating Annex G.
		4. Straw Poll:

A Remove Annex G

2b Keep Annex G as is

3 Keep Annex G but make references useful?

4 Check Annex G to ensure correct and agreement with Text

5 Make Annex G Informative

* + - 1. Results: 1-3-1-1-0
			2. So for now we keep it as is and go forward.
		1. Proposed Resolution: Rejected; a Normative definition of Frame exchange sequence is required and Annex G provides this Definition.
		2. Mark Ready for Motion
	1. Review 11-17/987 Graham SMITH
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-0987-11-000m-resolutions-for-dcf-and-edca-comments-d0-1.docx>
		2. CID 282(MAC)
			1. There is an open issue noted, but the final resolution is proposed as completely satisfying the comment.
			2. Proposed resolution: Revised; Incorporate the changes in 11-17/0987r11 < <https://mentor.ieee.org/802.11/dcn/17/11-17-0987-11-000m-resolutions-for-dcf-and-edca-comments-d0-1.docx> > for CID 282 which makes a minor change to add “or Management” and “of” to the noted clauses.
			3. No objection – Mark Ready for Motion
	2. Thanks to Kathryn BENNET for the facilities and WebEx access.
	3. Recess at 11:30 and will resume at 1pm ET.
1. **2018 December 07 REVmd AdHoc in Piscataway 1-3 pm ET**
	1. **Attendance:**
		1. Inperson:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Adrian STEPHENS (Intel)
			4. Joseph LEVY (Interdigital)
			5. HAMILTON (Arris/Ruckus)
			6. Kathryn Bennett (IEEE)
		2. Online:
			1. Emily QI (Intel)
			2. Graham SMITH (SRTechnologies)
			3. Youhan Kim (Qualcomm)
			4. Paul Nikolich (self- 802 Chair)
			5. Manish KUMAR (Marvell)
	2. **Called to order** at 9:10am ET by the Chair, Dorothy STANLEY (HPE)
	3. **Attendance recorded**
	4. **Patent Policy Reviewed**
		1. No items noted
	5. **Review Agenda:**

2. Thursday 1pm – 3pm

  a.  Matthew FISCHER: <https://mentor.ieee.org/802.11/dcn/17/11-17-1192-08-000m-cr-esp.docx>

 b.   Update: <https://mentor.ieee.org/802.11/dcn/17/11-17-1738-00-000m-setting-ccf0-for-20-40mhz-bss-bw.docx>

 c.        Mark HAMILTON CIDs

* + 1. No objection on the Agenda plan
	1. **Review submission 11-17/1192r8** – Matthew FISCHER
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1192-08-000m-cr-esp.docx>
		2. Matthew FISCHER was not on the call – status from Mark HAMILTON
		3. Review notes from the Draft Minutes of the 2017 November Plenary were read out.
		4. Then we tried to identify if this document was ready for finalizing the resolutions.
		5. There was objection to taking the whole document as there is still some open discussions going on with the author, and having this offline discussion complete may be better efficient.
			1. Uplink throughput estimations is the main sticking point.
		6. The Group needs to determine the scope of the concerns and how to find resolution sooner than later.
		7. The changes being suggested are not fully acceptable to all parties.
		8. Discussion on why the feature is not quite ready. The scheduling and uplink estimates are not agreeable.
		9. Discussion on the value of determining the parameters – STA uplink , STA downlink AP uplink and AP downlink.
		10. Reference to 9.4.2.216a – new section and discussion on the error estimate.
		11. While there is a group discussing this with a target for January, we would like to get a broader audience and will schedule time on the January 5th Telecon for an update. Request to have some of the discussion to be on the reflector to make more people aware of the topic.
		12. The plan is to have proposal for Jan 5th and then vote on it at the F2F mtg in January.
	2. **Review doc 11-17/1738** – Huizhao Wang (Quantenna)
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1738-00-000m-setting-ccf0-for-20-40mhz-bss-bw.docx>
		2. The change is very straight forward.
		3. Menzo was actioned to review this paper.
		4. ACTION ITEM #2: Dorothy to follow-up with Menzo – Plan to have update on Dec 15th Telecon
		5. Review Table 9-252 – some entries the value is zero, others have prescribed values.
	3. **CIDs from Mark** HAMILTON
		1. CID 231 (MAC)
			1. Review status – email exchange on the discussion
			2. Reference to 11.2.7 – p1761.6 (d0.01)
			3. Awake window is a DMG concept
			4. ATIM window is non-DMG
			5. This could be assigned to Carlos Cordeiro
			6. We could assign to Edward AU and have him bring to TGay for discussion.
			7. Discussion on if there is a DMG IBSS awake window or not.
			8. Page 1619.4 – CBAPs are generated by an AP or PCP, on 1761.1, says Awake Window starts at the beginning of a CBAP. Therefore, Awake Window requires AP or PCP, and is not related to (DMG) IBSS.
			9. This would allow us to get rid of the awkward and/or, but the condition needs to be non-IBSS DMG STA. so: “ATIM Window (for an IBSS STA) or Awake Window (for a non-IBSS DMG STA)” throughout the referenced subclause.
			10. Proposed Resolution: REVISED (MAC: 2017-12-07 19:07:23Z): Change "ATIM window/Awake Window" to "ATIM window (for an IBSS STA) or Awake Window (for a non-IBSS DMG STA)" throughout the referenced subclause (7 locations).
			11. Mark Ready for Motion
		2. CID 40 (MAC)
			1. Review Comment
			2. Discussion – the difference between a subelement and an element.
			3. Review Minutes from Oct Telecon – this CID was in 11-17/1412r1 discussion.
			4. ACTION ITEM #4 from the Oct Telecon: Mark HAMILTON to update the resolution with a Revised and a note added to the text.
			5. Possible Note: NOTE – A vendor-specific subelement can be included n a BSS Configuration Parameter Set within one of the permitted elements, even though the Vendor Specific element is excluded”
			6. Proposed Resolution: CID 40 (MAC): Move NOTE 1 and NOTE 2 to immediately follow the list on P1713.

Insert a note: "NOTE 3--A vendor-specific subelement can be included in a BSS Configuration Parameter Set within one of the permitted elements, even though the Vendor Specific element is excluded.", after the cited paragraph, at P1714.6.

* + - 1. Mark Ready for Motion
		1. CID 134 (PHY)
			1. CID 133 is related.
			2. Not sure the status November 3rd Telecon says the action was for Youhan
			3. The Database should flag for CID 133 should be marked as “Revised”.. Emily will do that.
			4. Review cited location.
			5. Discussion on possible reject reasons.
			6. Proposed Resolution: REJECTED: The assertion that it is not clear whether the STA is required to set it to 0 in the association request is incorrect, because the text at P1878.15 unambiguously requires a STA to declare its capability regardless of the AP’s capability. The proposed change is unnecessary because it is instructing the AP to not do something its not capable of.
			7. Mark Ready for Motion
		2. CID 137 (MAC)
			1. Review comment
			2. Proposed Resolution: REJECTED (MAC: 2017-12-07 19:44:18Z): The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.

Note that other comments citing specific obsolete mechanisms have resulted in some of these being removed.;

* + - 1. Mark Ready for Motion
		1. CID 152 (MAC)
			1. Review comment
			2. Discuss the sentence wording that would be agreeable.
			3. The Minimum AP Count field has a range of 1-15.
			4. Proposed Resolution: REVISED (MAC: 2017-12-07 19:57:22Z): Replace the cited sentence with, "The number of Neighbor Report subelements included in the FTM Range Subelements field is at least the value of the Minimum AP Count field."
			5. Mark Ready for Motion
	1. **Recess at 3:02pm**
1. **2018 December 07 REVmd AdHoc in Piscataway 3:30-5pm ET**
	1. **Attendance**:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Adrian STEPHENS (Intel)
			4. Joseph LEVY (Interdigital)

HAMILTON (Arris/Ruckus)

* + 1. Online:
			1. Emily QI (Intel)
			2. Graham SMITH (SRTechnologies)
			3. Youhan Kim (Qualcomm)
	1. **Called to order** at 3:32pm ET by the Chair, Dorothy STANLEY (HPE)
	2. **Attendance recorded**
	3. **Patent Policy Reviewed**
		1. No items noted
	4. **Review Agenda:**
		1. Continue with the agenda for the day.
	5. **GEN CIDS**
		1. CID 145 (GEN)
			1. Review Comment
			2. We have both implemented and activated Proxy ARP MIB variables.
			3. The discussion on the ProxyARP and if it includes Neighbour Discovery
			4. Neighbour Discovery is for IPV6
			5. Possible change to first sentence to 4.3.18.13 Proxy ARP: The Proxy ARP capability includes Proxy Neighbour Discovery when IPv6 addresses are being resolved.
			6. Discussion on how Proxy ARP and Proxy Neighbour Discovery are tied together.
			7. Discussion on clause 4 Proxy ARP services.
			8. Possible changes: Change to 4.3.18.13 Proxy ARP

The Proxy ARP service enables an AP to respond to ARP and Neighbor Discovery frames on behalf of associated non-AP STAs. Associated STAs do not receive ARP or IPv6 Neighbor Discovery frames. The Proxy ARP service enables associated STAs to remain in power save for longer periods of time.

* + - 1. Review locations to remove “(including Proxy Neighbor Discovery” p1933.11
			2. Change 1933.35 change “Neighbor Discovery” to “ARP”
			3. Change 2061.58 change “Proxy-ARP” to “the Proxy ARP service”
			4. Proposed Resolution: REVISED (GEN: 2017-12-07 21:03:27Z) change 4.3.18.13 Proxy ARP "The Proxy ARP service enables an AP to respond to ARP and Neighbor Discovery frames on behalf of associated non-AP STAs. Associated STAs do not receive ARP or IPv6 Neighbor Discovery frames. The Proxy ARP service enables associated STAs to remain in power save for longer periods of time."

at p1933.11 delete “(including Proxy Neighbor Discovery”

Change 1933.35 change “Neighbor Discovery” to “ARP”

Change 2061.58 change “Proxy-ARP” to “the Proxy ARP service”

* + - 1. Mark Ready for Motion
		1. CID 120 (GEN)
			1. Review comment
			2. Review proposed change
			3. Proposed resolution: Accept.
			4. Mark Ready for Motion
		2. CID 195 (GEN)
			1. Review Comment
			2. Cited table should be in 15-2 and 15-2.
			3. Discussion on if the antenna ID is tied to TX\_Antenna.
			4. There are 7 TX\_Antenna in the draft.
			5. The use of TX\_Antenna is only in clause 15 and 16.
			6. The use of ANT\_STATE is used in clause16 and 17.
			7. Discussion on the use of Antenna ID
			8. The use of Antenna ID came after 11b, so unlikely that 11b would use it.
			9. Discussion on where Antenna ID makes sense and which elements it may be used in and if it is transmitted or not.
			10. Frame Reports give back what came in the frame. Part of that is the Antenna ID field, so you report back on which Antenna was used to receive it.
			11. We should determine if this is useful and if it is we should fix this and if not we should deprecate it.
			12. There are 4 parts: TX\_Antenna, RX\_Antenna, ANT\_STATE, and Antenna ID. They are all defined in their respective usage, and to change them would require an updated to all the PHYs and we may not have enough value.
			13. The Consistency of the usage is what is probably most important. Do we have any usage of the antenna values?
			14. ANT\_STATE is in CID 196.
			15. How to determine the valid values?
			16. ANT STATE -0 to 255 seems correct
			17. Is it possible that we remove 3 parts that are not connected? No we would have to mark them obsolete and then delete in next revision.
	1. Ran out of time,
	2. **Recessed at 5:02pm**
1. **2018 December 08 REVmd AdHoc in Piscataway 9-11:30am ET**
	1. **Attendance**:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Adrian STEPHENS (Intel)
			4. Joseph LEVY (Interdigital)
			5. HAMILTON (Arris/Ruckus)
			6. Walter Penciak (IEEE)
			7. Kathryn Bennett (IEEE)
		2. Online:
			1. Emily QI (Intel)
			2. Graham SMITH (SRTechnologies)
			3. Paul NIKOLICH (self- 802 Chair)
			4. Manish KUMAR (Marvell)
			5. Stephen MCCANN (Blackberry)
	2. **Called to order** at 9:01am ET by the Chair, Dorothy STANLEY (HPE)
	3. **Attendance recorded**
	4. **Patent Policy Reviewed**
		1. No items noted
	5. **Review Agenda: 11-17/1848r1**
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1848-01-000m-agenda-tgmd-2017-12-07-8-ad-hoc.docx>

4. Friday Dec 8, 2017 9-11:30am – Security CIDs and topics

a.       CID 95

b.       Review of M. Vanhoef paper suggestions, see <http://www.ieee802.org/11/email/stds-802-11-tgm/msg01235.html>

c.        Additional security CIDs

* + 1. Mark RISON has sent an update on M. Vanhoef Paper to the reflector
		2. Mark HAMILTON asked for some additional CIDS: 47,301, 337, 106
		3. No objection to updated agenda (see r1)
	1. CID 95 (PHY)
		1. Review comment
		2. Jouni is working on this, but ok with delaying working on this until the next ballot. We can reject for insufficient detail for now, and let it come up on a future comment.
		3. Proposed Resolution: Reject - The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined.
		4. Mark Ready for Motion
	2. **Look at Security CIDs**
		1. There are 8 of them.
		2. CID 97 (PHY)
			1. Review comment
			2. Discussion on what happens when you get a malformed frame
			3. We can reject for now for insufficient detail, but we do not want to give confusing direction.
			4. We want to be responsive and make things explicit for security issues, but we cannot document all the not doing things.
			5. Balance between a security concern, that should be responded to, so we are clearly being responsive to (especially published) security concerns - and - if we start to list every action that devices should \_not\_ do, we'll be here forever.
			6. Proposed Resolution: Reject - The comment fails to identify changes in sufficient detail so that the specific wording of the changes that will satisfy the commenter can be determined. Additionally, this turns into a request to provide specific guidance for behaviour upon receipt of a particular form of malformed frame. We do that very rarely, when the situation warrants such special attention.
			7. Mark Ready for Motion
		3. CID 143 (PHY)
			1. Review Comment
			2. Discussion of the requirement of “shall” in Clause 12
			3. The “following the recommendations of 12.7.5…” is the offending phrase. The Declarative and informative part of the sentence needs to be separated.
				1. generates a 256-bit random number. (See 12.7.5 for a recommended procedure.)
			4. Proposed Resolution: Revised; at the 8 locations, change from “256-bit random number following the recommendations of 12.7.5 (Nonce generation).” To “256-bit random number. See 12.7.5 (Nonce generation) for a recommended procedure. at the cited location and also similarly at 2184.1, 2185.62, 2194.55, 2195.52, 2266.30, 2266.58, 2306.18.
			5. Mark Ready for Motion
		4. CID 170 (PHY)
			1. Review Comment
			2. See clause 9.4.2.25.3 – AKM Selector
			3. Need to give Emily time to check if we have done any work on this clause.
			4. No changes were noted.
		5. CID 268, 279, 271 and 236 (PHY)
			1. Submission required - Schedule for later
			2. All assigned to Mark RISON
			3. For CID 268 – there are other comments that are similar – Mark HAMILTON to coordinate with Michael MONTEMURRO on this topic.
			4. For those that do not have a submission in January, will be rejected for insufficient detail.
		6. CID 170 (PHY)
			1. From November Plenary –
				1. Review Submission 11-17/1089r9
				2. <https://mentor.ieee.org/802.11/dcn/17/11-17-1089-09-000m-revmd-cc25-comment-resolutions.doc>
				3. The proposed resolution is not very clear. Need to add a one row table and indicate at 946.49, insert the following row, updating the reserved row and requesting a new suite type selector from ANA.
			2. The suggestion has not been posted yet.
			3. We can probably create the needed resolution here.
			4. Proposed Resolution: Revised; Insert a new row in Table 9-133 (relative to d0.1) with the following contents:

00-0F-AC

<ANA defined value>

FT authentication using PSK

FT key management as defined in 12.7.1.7 (FT key hierarchy)

Defined in 12.7.1.7.2 (Key derivation function (KDF)) using SHA-384

* + - 1. Mark Ready for Motion
		1. CID 171 (PHY)
			1. Similar to CID 170
			2. Proposed Resolution: Revised; Insert a new row in Table 9-133 with the following contents:

00-0F-AC

<ANA defined value>

PSK

RSNA Key Management as defined in 12.7 (Keys and key distribution) using PSK

Defined in 12.7.1.7.2 (Key derivation function (KDF)) using SHA-384

* + - 1. Mark Ready for Motion
	1. Other CIDs
		1. CID 351 (MAC)
			1. Review Status
				1. We may have the resolution nearly ready
			2. Outstanding email exchange not done yet.
			3. Mark Comment Submission required in the meantime.
			4. Basic resolution was to delete the ANQP Element in question, but needed to check that it really is an orphaned AI assigned item.
			5. The Default resolution would be to revise.
			6. Proposed Resolution: CID 351 (MAC): Revised. Delete the FILS Realm Identifier ANQP-element. That is, delete subclause 9.4.5.26, and from Table 9-281, Table 11-15, PICS entry FILS 3.2 (leaving a numbering gap).; This removes the TGai ANQP-element that should have been deleted before roll-in, which includes the cited sentence.
			7. Mark Ready for Motion
		2. CID 244 (GEN)
			1. Review comment
			2. From Oct Telecon:
				1. Reviewed comment.
				2. Location appears to be 1558.18 in D0.1.
				3. MME is the MIC element for a protected frame. In 9.3.3.5 there is a NOTE that the MME always appears as the last thing in the frame.
				4. Since this is a clause about how to parse a frame with Vendor-specific items, it seems useful to keep the clarification in this clause that the receiver can always find the MME.
				5. The issue of whether this is all correct or not appears complicated. Need to consider off-line.
				6. Suggest rejecting. No objections. But need to investigate the AMPE question.
				7. Assign to Mike (PHY), for now.
				8. Draft resolution: GEN: 2017-10-13 16:00:45Z - Proposed Resolution: REJECTED (GEN: 2017-10-13 15:57:53Z) The Statement is correct, the note is in the context of parsing Vendor specific frames, and that the MME can be located.
			3. Proposed Resolution: REJECTED (GEN: 2017-12-08 15:15:56Z) The Statement is correct, the note is in the context of parsing Vendor specific frames, and that the MME can be located.
			4. Mark Ready for Motion
		3. CID 292 (GEN)
			1. Review Comment
			2. Check 1757.41, 1698.8 for context.
			3. Ambiguous on if we can use “may not” vs “shall not”
			4. We think that this may be “Might not”
		4. CID 295 (GEN)
			1. Review Comment
			2. Review locations for possible changes made by other CIDs.
			3. The question is “What is a “backoff slot”?
			4. GEN: 2017-12-08 15:27:12Z - status set to: Submission Required and assign to Graham.
		5. CID 296 (GEN)
			1. Review Comment
			2. Page 327.50 (D0.1)
			3. Proposed Resolution: Revised; at p327.50 (D0.1) make the proposed change.
			4. Mark Ready for Motion
		6. CID 324 (GEN)
			1. Done on the Dec 1st telecon
		7. CID 233 (GEN)
			1. Review Comment
			2. Review context at 157.61
			3. Review definition
			4. There are 16 instances of non-A-MPDU in the draft.
			5. 1728.31 did not call out VHT single MPDU
			6. Discussion on the way to resolve the comment
			7. The proposed resolution causes a problem on line 1728.31.
			8. We need to get a correct fix that doesn’t cause other problems.
			9. ACTION ITEM #3: GEN: 2017-12-08 15:48:59Z - status set to: Submission Required and assign to Mark RISON to provide an updated resolution
		8. CID 5 (PHY)
			1. Review Comment
			2. Mark it Submission Required
		9. CID 14 (PHY)
			1. Mark Submission Required
		10. CID 17 and 218 (MAC)
			1. Review Status
			2. Mark Submission Required
			3. Doc 11-17/988r2 has the proposals for discussion.
			4. We will want to Review 11-17/988r3
			5. <https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>
			6. The document was posted in August, and we may need to sort out if we have done CID 74 or not.
	2. **Review 11-17/988r3** Graham SMITH
		1. <https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>
		2. CID 17 (MAC)
			1. Review Comment
			2. Review submission discussion
			3. This was discussed on the Aug telecon, and noted we needed more review in order to ensure coverage of CID 218.
				1. From AdHoc Notes for CID 17 and 218: MAC: 2017-08-11 15:05:34Z: Reviewed 11-17/988r1. No immediate objections, but need to consider more, especially whether CID 218 is sufficiently covered.
			4. TSPEC vs DMG TSPECs were discussed.
			5. Proposed Resolution: CID 17, 218 (MAC): REVISED (MAC: 2017-12-08 16:05:39Z):

Add at 1774.8 (the following states, agreements and allocations shall be deleted or reset to initial values)

“11) TSPECs

12) DMG TSPECs”

Add at 1774.28 (The following states, agreements and allocations are not affected by the reassociation procedure)

“13) PTP TSPECs”

* + - 1. Mark Ready for Motion
		1. CID 218 (MAC)
			1. Proposed resolution: REVISED (MAC: 2017-12-08 16:05:39Z):

Add at 1774.8 (the following states, agreements and allocations shall be deleted or reset to initial values)

“11) TSPECs

12) DMG TSPECs”

Add at 1774.28 (The following states, agreements and allocations are not affected by the reassociation procedure)

“13) PTP TSPECs”

* + - 1. Mark Ready for Motion
	1. CID 295 (GEN)
		1. Graham investigated and the resolution for CID 294 is similar.
		2. Proposed Resolution REVISED (GEN: 2017-12-08 16:10:17Z) Incorporate the changes in 11-17/987r10 < <https://mentor.ieee.org/802.11/dcn/17/11-17-0987-10-000m-resolutions-for-dcf-and-edca-comments-d0-1.docx>> for CID 294, which clarifies the text identified in the comment. (This Comment and CID 294 are similar).
		3. Mark Ready for Motion
		4. Note CID 189 CID also cites the same document, but does not cite the CID
		5. Emily will adjust the resolutions for CID 294 and 189 to include the link to the document and cite the CIDs being updated from the document.
	2. **Review of email on M. Vanhoef Paper**
		1. Discussion on the KRACK Paper.
		2. The discussion follows the email thread on the TGM reflector: <http://www.ieee802.org/11/email/stds-802-11-tgm/msg01251.html>
		3. Review the change made from 11-17/1602r3:
			1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1602-03-000m-nonce-reuse-prevention.docx>
		4. After discussion two changes were identified to be considered.
			1. "Additionally, stations must track the last configured GTK/IGTK value separately from EAPOL-Key frames and WNM-Sleep Mode frames to cover a corner case where these two different mechanisms may get used when the GTK/IGTK has changed and tracking a single value is not sufficient to detect a possible key reinstallation".  (We might want to make the wording more generic, so that we won't have spec rot when a third way to set (I)GTKs gets introduced.)
			2. “On reception of message 4, the Authenticator verifies that the Key Replay Counter field value is one that it used on this 4-way handshake.”
	3. **Recess at 11:30am**
1. **2018 December 08 REVmd AdHoc in Piscataway 1-3pm ET**
	1. **Attendance**:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Adrian STEPHENS (Intel)
			4. Joseph LEVY (Interdigital)
			5. HAMILTON (Arris/Ruckus)
			6. Walter PENCIAK (IEEE)
			7. Kathryn Bennett (IEEE)
			8. Online:
				1. Emily QI (Intel)
				2. Graham SMITH (SRTechnologies)
				3. Mark RISON (Samsung)
				4. Youhan KIM (Qualcomm)
	2. **Called to order** at 1:02pm ET by the Chair, Dorothy STANLEY (HPE)
	3. **Attendance recorded**
	4. **Patent Policy Reviewed**
		1. No items noted
	5. **Review Agenda**:

5. Friday 1-3pm

 a.       CID 5 – Chris HANSEN

 b.       Additional CIDs

 c. Editor Report

 d. AOB

 e. Next Meeting

 f. Adjourn

* + 1. Chris will not be on the call today.
		2. Process Additional CIDs – start with Mark HAMILTON (MAC)
		3. No objection on updated agenda
	1. CID 47 (MAC)
		1. Review Comment
		2. Review from Minutes of Dec 1 telecon
			1. “The AP sets the fields of the HLP Container element as follows:

o The Destination MAC Address field is set to the destination MAC address of the received HLP packet, which is the MAC address of the non-AP STA or a group address

o The Source MAC Address field is set to the source MAC address of the received HLP packet

o The HLP Packet field is set to the HLP packet in MSDU format (see 5.1.4).

* + 1. No changes from that.
		2. Proposed Resolution: CID 47 (MAC): REVISED (MAC: 2017-12-08 18:09:36Z): Change the cited text to:

“The AP sets the fields of the HLP Container element as follows:

o The Destination MAC Address field is set to the destination MAC address of the received HLP packet, which is the MAC address of the non-AP STA or a group address

o The Source MAC Address field is set to the source MAC address of the received HLP packet

o The HLP Packet field is set to the HLP packet in MSDU format (see 5.1.4)."

* + 1. Mark Ready for Motion
	1. CID 301 (MAC)
		1. Review Comment and History
		2. Note that we discussed this in Orlando
			1. Resolution from November Plenary: CID 301 (MAC): REVISED (MAC: 2017-11-06 20:16:49Z): Move the paragraph at P240.30 to replace the paragraph at P240.24.

After the first occurrence of "FST session" in 11.33 (P2000.46), add "(see 4.9.4)".

* + 1. The number in the resolution of P240.24 should have been P240.14.
		2. Proposed Resolution: CID 301 (MAC): REVISED (MAC: 2017-12-08 18:19:32Z): Move the paragraph at P240.30 to replace the paragraph at P240.14.

After the first occurrence of "FST session" in 11.33 (P2000.46), add "(see 4.9.4)".

* + 1. Mark Ready for Motion
	1. CID 337 (MAC)
		1. Review Comment
		2. Review 11-17/950r1
			1. <https://mentor.ieee.org/802.11/dcn/17/11-17-0950-01-000m-cid-337-super-operating-classes.pptx>
			2. The submission is a ppt and not a submission of text changes.
		3. Need a submission for the changes
		4. Mark CID Submission needed.
	2. CID 106 (MAC)
		1. Review Comment
		2. Waiting on Submission.
		3. Last discussed in Sept during Interim in Waikoloa.
		4. ACTION ITEM #4: Mark HAMILTON to follow-up
	3. CID 74 (MAC)
		1. Previous Status – discussed on Aug 11 Telecon
			1. Final Adhoc notes/State: CID 74 (MAC): MAC: 2017-08-11 14:59:31Z: Might be referring to the QoS Traffic Capability IE (optionally sent by an WNM non-AP STA). Needs further investigation.
		2. Review Comment
		3. Review 11-17/988r3
			1. <https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>
		4. Proposed Resolution: CID 74 (MAC): REJECTED (MAC: 2017-12-08 18:34:02Z): The AP is simply reporting the associated non-AP STAs that have sent their AC requirements in their re(association) requests.
		5. Mark Ready for Motion
	4. CID 111 (MAC)
		1. Review Comment
		2. Review Status
		3. CID 111 (PHY): Change to submission required.
		4. Need to check which comment group it resides.
	5. CID 144 (PHY)
		1. Mark Submission required
	6. CID 176 (PHY)
		1. Reviewed status and history of discussion
		2. It was discussed on the June 30th telecon
		3. More discuss was indicated.
		4. Mark Submission required.
		5. If no submission, we will reject in January.
	7. CID 177 (PHY)
		1. Mark Submission Required –
		2. Is assigned to Sigurd.
	8. CID 191 (PHY)
		1. Mark Submission Required
	9. CID 192 (PHY)
		1. Mark Submission Required
		2. Review Proposed Change in 11-16/0276r15
			1. <https://mentor.ieee.org/802.11/dcn/16/11-16-0276-15-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>
		3. The proposed changes cannot be directly actioned by the Editor because of the version differences and the changes would need to be on the new REVmd drafts.
	10. CID 193 (PHY)
		1. Review Status
		2. Mark Submission Required – change assignee to Mark RISON
	11. CID 194 (PHY)
		1. Review Comment Status
		2. Assigned to Menzo
	12. CID 195 and 196 (GEN)
		1. Antenna ID – will come back to them later
	13. CID 213, 214, 216, 217 (MAC)
		1. Comment moved from PHY; need to change Comment Group from be Throughput-Estimate to Motion MAC-ESP
		2. Mark Submission Required
	14. CID 233 (MAC)
		1. Schedule for Telecon next week.
	15. CID 246 (MAC)
		1. Add to telecon schedule for next week.
	16. CID 256 (PHY)
		1. Change to Submission Required
	17. CID 273 (MAC)
		1. Part of the old CIDs being brought back.
		2. This is not actionable by the editor
		3. Need Submission
		4. Mark Submission Required
	18. CID 288 (PHY)
		1. Mark Submission Required
	19. CID 289 (PHY)
		1. Needs to have status updated.
		2. Mark submission required, assign to Guido.
		3. Assign to Next Telecon for discussion
	20. CID 293 (GEN)
		1. Review Comment
		2. Reference 1124.6
		3. Discussion on the use of *Burst Instances?*
		4. Proposed Resolution: REVISED (GEN: 2017-12-08 19:17:03Z) Change cited sentence at P1916.24 "The time windows during which Fine Timing Measurement frames are sent are known as burst instances."
		5. Mark Ready for Motion:
	21. CID 302 (GEN)
		1. Review Comment
		2. Proposed Resolution: REVISED (GEN: 2017-12-08 19:31:09Z) make the following changes:

154.33 delete sentence starting “This format is represented at the PHY …“

154.45 delete sentence starting “This format is represented at the PHY…”

154.59 change definition to “A Clause 19 (High-Throughput (HT) PHY specification) PPDU that is either high-throughput(HT) mixed format(HT-MF) or high-throughput (HT) greenfield format (HT-greenfield) format.

This makes a change in the direction suggested by the commenter

* + 1. Mark ready for Motion
	1. CID 304 (PHY)
		1. Mark Submission Required
	2. CID 305 (MAC)
		1. Mark Submission Required
	3. CID 306 (PHY)
		1. Mark Submission Required
	4. CID 312 (PHY)
		1. Mark Submission Required
	5. CID 319 (PHY)
		1. Mark Submission Required
	6. CID 320 (GEN)
		1. Review comment
		2. There is no need for Management MIC elements
		3. A Robust Ack No Ack would be needed.
		4. Proposed Resolution: REJECTED (GEN: 2017-12-08 19:41:53Z) There is no reason for Action No Ack to carry MIC elements. The Action No Ack currently carries information such as beamforming that is of time critical but transient value. There is no need to cryptographically authenticate such data, until such uses are added, and a MIC element can be added at that time.
		5. Mark Ready for Motion
	7. CID 324 (GEN)
		1. Done with Dec Telecon
	8. CID 328 (EDITOR)
		1. It is marked Submission required – will be rejected if no submission at the January Face to Face by default.
	9. CID 338 (MAC)
		1. Put on Agenda for Jan5th Telecon
		2. This CID has been discussed offline since September interim.
	10. CID 339 (MAC)
		1. Assigned to Ganesh
		2. Assign to Telecon on Jan 5th
	11. CID 360 & 361 (PHY)
		1. Mark Submission Required
	12. First pass over all the comments has been completed.
		1. We need to get all the updates posted for review
	13. **Editor Report**
		1. Summary given for 11-17/920r6
		2. <https://mentor.ieee.org/802.11/dcn/17/11-17-0920-06-000m-802-11revmd-editor-s-report.ppt>
		3. Review of D0.5 is starting on Monday – assignments will be sent then.
		4. Comment Collection doc 11-17/0914r7 will be posted to correspond to d0.5
	14. **AOB**
		1. Graham SMITH
			1. Has posted 11-17/1137r6 has been posted and is looking for feedback/review
			2. <https://mentor.ieee.org/802.11/dcn/17/11-17-1137-06-000m-resolutions-for-obsolete-blockack.docx>
			3. Request for schedule for Next Week Telecon
	15. **Official Thanks** to Kathryn Bennett for hosting REVmd this week.
		1. Thanks to those that attended the AdHoc
	16. **Adjourned 3:06pm**

Post Meeting Notes:

Comment Status at end of Meeting:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Owning Ad-hoc** | **Assigned** | **Discuss** | **Resolution Drafted** | **Ready for Motion** | **Approved** | **Grand Total** |
| EDITOR | 5 |   |   | 1 | 223 | 229 |
| GEN | 24 | 2 |   | 12 |   | 38 |
| MAC | 28 |   | 8 | 16 |   | 52 |
| EDITOR2 | 2 |   |   |   |   | 2 |
| PHY | 46 |   | 1 |   |   | 47 |
| **Grand Total** | **105** | **2** | **9** | **29** | **223** | **368** |

Comment Assignees:



**References:**

Thursday:

<https://mentor.ieee.org/802.11/dcn/17/11-17-1848-00-000m-agenda-tgmd-2017-12-07-8-ad-hoc.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1137-04-000m-resolutions-for-obsolete-blockack.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1261-01-000m-resolution-for-obsolete-annex-g.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0987-11-000m-resolutions-for-dcf-and-edca-comments-d0-1.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1192-08-000m-cr-esp.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1738-00-000m-setting-ccf0-for-20-40mhz-bss-bw.docx>

Friday:

<https://mentor.ieee.org/802.11/dcn/17/11-17-1848-01-000m-agenda-tgmd-2017-12-07-8-ad-hoc.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1089-09-000m-revmd-cc25-comment-resolutions.doc>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0987-10-000m-resolutions-for-dcf-and-edca-comments-d0-1.docx>

<http://www.ieee802.org/11/email/stds-802-11-tgm/msg01251.html>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1602-03-000m-nonce-reuse-prevention.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0988-03-000m-resolutions-for-qos-and-tspec-comments-d0-1.docx>

<https://mentor.ieee.org/802.11/dcn/16/11-16-0276-15-000m-resolutions-for-some-comments-on-11mc-d5-0-sbmc1.docx>

<https://mentor.ieee.org/802.11/dcn/17/11-17-0920-06-000m-802-11revmd-editor-s-report.ppt>

<https://mentor.ieee.org/802.11/dcn/17/11-17-1137-06-000m-resolutions-for-obsolete-blockack.docx>