IEEE P802.11
Wireless LANs

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| Minutes for REvmd AdHoc - April 2-4 - Portland |
| Date: 2019-04-04 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdahl | Qualcomm Technologies, Inc. | 10871 N 5750 WHighland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |
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Abstract

Minutes for REVmd AdHoc - April 2-4 - Intel Offices, Jones Farm, Oregon

1. IEEE 802.11md - REVmd Adhoc Tuesday 9-11:30am – Intel Offices, Jones Farm, Oregon
	1. **Called to order** at 9am by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance**:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Joseph LEVEY (Interdigital)
			5. Michael MONTEMURRO (Blackberry)
			6. Mark HAMILTON (Ruckus/ARRIS)
			7. Robert STACEY (Intel)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Srinivas KANDALA (Samsung)
			3. Menzo WENTINK (Qualcomm)
	3. **Review Patent Policy**
		1. No Issues noted
	4. **Review Participation Slide**
	5. **Review Agenda** –11-19/533r1
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-01-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. Updates to the agenda to accommodate attendance and timings were made.
		3. Approved Agenda captured in 11-19/533r2 for Tuesday and Wednesday.

[https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd- teleconference-and-ad-hoc-agendas.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-%20teleconference-and-ad-hoc-agendas.docx)

* + 1. Moved Emily QI 2nd Joseph LEVEY
		2. Results – Approved by Unanimous Consent without objection.
	1. **11-19/260r10 MDR Status** – Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0260-10-0000-revmd-mdr-report.docx>
		2. Review history since version that was reviewed during March 802 Plenary session.
		3. Expectation is to review the changes this week, and if there is no major issues, will implement the changes speculatively into d2.2. The approved Motions will also be in d2.2 prior to the May Meeting. The Tags for the MDR changes that were suggested since March will be tagged with “MDR-1” to set them apart from other MDR changes tagged “101”
		4. Review “2.1.9 Style Guide 2.8 – Terminology: frame vs packet vs PPDU vs MPDU” section
		5. Discussion on the TRN-R-:PACKET field name– should this be changed or not.
		6. Decision to follow the proposed [TGmd Editor-AdHoc] Accepted all revised changes/recommendations from Robert in this section.
		7. Review “2.1.10 Style Guide 2.9 – Use of verbs & problematic words” section for Bahar section.
		8. Discussion on the Page 2686 – Line 16 – “may not” 🡪 “shall not”
			1. Is this a technical change? Is this a change that should be made? Does this require a comment/submission to correct it?
			2. This will need to have more discussion and review again.
			3. MDR goal is the Editorial changes, and the Technical changes should have a comment/submission for the technical changes.
			4. The Action item will be assigned to Dan HARKINS to bring a submission for a change. (Dorothy to contact him about it).
			5. Suggestion to tag it in the draft was not agreed to be done, as there are other items that also need review before we go to the next recirculation.
		9. Discussion: Page 728 –Line 8 “To make this transition, a non-AP STA will have completed” 🡪 “To make this transition, a non-AP STA shall have completed”
			1. Discussion on the use of “will”
			2. Comment/Submission required and assign to Mark Hamilton.
		10. Discussion “2.1.14 Style Guide 2.13 – References to SAP primitives”
			1. Fixed typo where “primitive” word was missing and change TXEMD to TXEND (typo).
			2. Fixed MLML that should be MLME.
		11. Discussion “2.1.15 Style Guide 2.14 – References to the contents of a field/subfield”
			1. About 10 pages of changes.
			2. Discussion of the field names and subfield names that are the proper name should be upper cased.
				1. This was not the point of this particular review point, so making the change will potentially cause a large number of changes.
			3. 9.6.19.11, page 1614, line 11 “is indicated by the value of the Number of Channel Measurement Info field.” Should be: “is indicated by the Number of Channel Measurement Info field.”
			4. While this may have had changes like this in other sections, we are not making a change here with this MDR change set.
			5. Need to look at the style guide and clarify the rules for proper names.
		12. Discussion: “2.1.20 Style guide 3 – Style applicable to specific Clauses”
			1. Review changes on p192.13 – Need “the” prior to the change. And also on p193.60.
			2. P162.9 – LLC – should each word be upcased? –
				1. Change to “EtherType protocol discrimination (EPD) or logical link control (LLC) protocol discrimination (LPD).
			3. Will accept all other changes in this section from Bahar.
		13. Review p254.41 for “should use” to “uses” – should be p245.41. After review, the last sentence needs to be deleted, and this may be addressed by CID 2331 – 2335 from Kaz 11-19/429. The deletion of the sentence could be added to his document. Dorothy to email Kaz will about this particular issue.
		14. Review 2.1.20.6 Annex A – Bibliography
			1. The following references are not cited anywhere and need to be removed: [B4] [B5] [B8] [B10] [B12] [B17][B19] [B21] [B36] [B38] [B43] [B45] [B47] [B52] [B54] [B57] [B60]
			2. CID 2053 addresses this issue.
			3. Assign this change to Mike MONTEMORRO to review and reconcile the differences – [B1],[B21], [B47] are differences
			4. Change to this will be done according to the resolution of CID 2053, and no change from the MDR for this item.
		15. Review “2.3 MIB”
			1. Review proposed changes, and the suggestion for making a specific change, then the editor will make the change.
			2. Send an email to have a review of S1G items to be reviewed by Yujin NOH, and the CDMG items to review by Jiamin CHEN.
		16. Review Action Item from MDR –
			1. Mark HAMILTON – dot11STATransmitPowerClass – change is ok’d
			2. Mark HAMILTON- dot11APMACAddress – still open item to check.
			3. Mark HAMILTON – page 127 – name change proposals – still open
				1. We should make names conform for the new variables, but the older ones may be ok to grandfather.
				2. See 11-15/355r3.
				3. Reminder to all to review the new Amendments with the idea that the MIB names should be conformant.
				4. There seemed to be about 10 that were identified.
	2. **Recess for short break** – 10:30-10:50am
	3. **Obsolete CID Discussion**
		1. CID 2642 (MAC)
			1. Assignee was Graham SMITH- but his document does not have a proposed resolution.
			2. Potential use in unidirectional links in different bands, for example with light communications which may need this or in power-limited devices which cannot meet SIFS and may need this, so the proposal is not to delete it.
			3. Discussion on possible rejection of the CID and the additional rational for not deleting HT-delayed BA.
			4. Discussion on why not deleting something for speculative future use is not a desirable action.
				1. There is no implementation of this feature, so not sure if it is broken or not.
			5. An email exchange between Menzo and Graham captured in 11-19/0574r1 on another issue.
			6. Proposed Resolution: REJECTED (MAC: 2019-04-02 18:07:23Z): The HT-delayed BA mechanism is defined, and no errors have been identified. The BRD discussed deprecating and did not come to consensus to do so. The following points were raised in support of maintaining the feature as is: Potential uses of HT-delayed BA include: to enable unidirectional links in different bands, for example with light communications, and for power limited devices which cannot meet SIFS.
			7. Mark Ready for Motion
		2. CID 2402 (MAC)
			1. Review comment
			2. Review doc 11-18/1371r1
				1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1371-01-000m-cid-1240-proposed-resolution.docx>
				2. Resolves CID 1240
			3. Review doc 11-19/574r1:
				1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0574-01-000m-resolutions-for-backoff-and-obsolete-comments-d2.docx>
				2. This has a proposed resolution: Rejected These Advertisements Protocols are defined, and therefore still exist within IEEE 802.21-2017 - they should not be deprecated. A liaison or request could be sent to the IEEE 802.21 WG asking for assistance and clarification with these Advertisement Protocols format if one wished to pursue deprecation.
			4. Look at 802.21-2017.
				1. Review MIS protocol pages
			5. Proposed Resolution: CID 2402 (MAC): REJECTED (MAC: 2019-04-02 18:15:29Z): These Advertisement Protocols are defined, and therefore still exist within 802.21-2017. If the definition in 802.1 are in error, the corrections/additions need to be made in the 802.21 document.
			6. Mark Ready for Motion
		3. CID 2345 (MAC)
			1. Review comment
			2. Review doc 11-19/574r1 discussion
			3. This topic was discussed previously during Sept 2018 at least and again during a telecon or two.
			4. Discussion on how to describe the usefulness of this bit. The Receiver side does not seem to have a behaviour associated with this bit. If we want to indicate that there is some value to this bit, it should be included to help the relay configuration mechanism is.
				1. 11.35 DMG Relay procedure reviewed.
				2. The specific bit would be useful to upper layers.
				3. Excerpt from discussion on A/C Power subfield the September 2018 Minutes:

7.7.4 CID 1569 (MAC)

7.7.4.1 Review Comment

7.7.4.2 Discussion on the A/C vs AC vs Mains or similar naming

7.7.4.3 Question on the POE as a possible issue. Need definition of the power that is being described. Maybe we should include an example of what the power usage is being needed here.

7.7.4.4 There may be a bigger issue of capability vs is currently having power currently supplied.

7.7.4.5 This is a bit in a capability field, so is the value set to one if capable, or is it that the device is using the power. The bit is only useful if it is telling if the device is on AC power or not. If it is a capability, then it is not very useful.

7.7.4.6 Discussion on if this is a capability or not.

7.7.4.7 Original text:

“The A/C Power subfield indicates whether the STA is capable of obtaining A/C Power. It is set to 1 if the STA is capable of being supplied by AC Power, otherwise it is set to 0.”

7.7.4.8 Proposed Alternative Change 1):

“The A/C Power subfield indicates whether the STA is using AC Power. It is

* + - 1. Discussion on how the use of the subfield can be used. What is the precedence for adding a note for similar bits?
			2. Proposed Resolution: CID 2345 (MAC): REJECTED (MAC: 2019-04-02 18:43:12Z): The commenter states: “There is no behaviour associated with the setting of the A/C Power subfield, so this subfield is useless.”

The field is not useless. The AP or device setting up the relay benefits from information about the power characteristics of a relay device. The definition of the field is clear. An implementation can use this data for relay operation decisions.

* + - 1. Mark Ready for Motion
	1. **Time Check** –
		1. Reviewed list of CIDs for Obsolete/Deprecated
		2. Review list from Graham’s doc 11-19/574
		3. Update agenda for this afternoon with those CIDs we did not get to this morning.
		4. See 11-19/533r2 (also corrects the time zone to Pacific time zone.
	2. **Recess at 11:50am PT**
1. **IEEE 802.11md - REVmd Adhoc Tuesday PM1 1pm-3pm – Intel Offices, Jones Farm, Oregon**
	1. **Called to order** at 1:02pm by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance:**
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Joseph LEVEY (Interdigital)
			5. Michael MONTEMURRO (Blackberry)
			6. Mark HAMILTON (Ruckus/ARRIS)
			7. Robert STACEY (Intel)
		2. On WebEx only:
			1. Srinivas KANDALA (Samsung)
			2. Mark RISON (Samsung)
			3. Yungsong YANG (Huawei)
			4. Nehru BHANDARU (Broadcom)
			5. Thomas Derham (Broadcom)
			6. Jerome HENRY (CISCO)
	3. **Review Patent Policy**
		1. No issues noted
	4. **Review Agenda** 11-19/533r2
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
	5. **Review doc 11-19/114r1** Yungsong YANG (Huawei)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0114-01-000m-text-proposal-for-protecting-twt-action-frames.doc>
		2. Abstract: This document proposes text changes to P802.11 REVmd D2.0 for adding integrity-protected version of some TWT action frames. This text proposal also addresses LB236 comments CIDs 2715 and 2716.
		3. R1: update based on feedback received in January 2019 and add Protected TWT Information frame.
		4. Review Submission change summary
		5. Discussion on how to use the extension capability field vs using RSN Capabilities field.
		6. Discussion on how to make an existing field extensible. Possibly the version field. There are plenty of bits in the Extended Capabilities Element, so may be a more extensible solution. Another Option would be to revise the Version field and make a new field.
		7. Review the submission for the feature without worrying about the capabilities information for today’s presentation.
		8. Discussion on if we can use the RSN extension element, then we don’t need the capabilities element.
		9. Discussion on if this could be done with the protected Beacon, but it has to be done after the beacon IGTK, and if so, you would not have to be in the 4-way handshake.
		10. Discussion on the use of a “global” information, but for a local issue.
		11. Discussion on the use of Protected Action frames and the history of TGaf using unprotected S1G Action Field.
		12. Discussion on why not deprecate the unprotected versions and just add the protected versions. This gives a hint to the implementors to use a protected version as a better path. If we have a flaw, then we should fix it. We should not have so many permutations on the options of Capabilities and protected vs unprotected.
		13. Add this topic to the May 3 Telecon for an update.
	6. **Review CID 2262** PC and CF-Pollable
		1. Review comment
		2. Discussion on deleting the paragraph 3780.56-59 (last paragraph of the description in the MIB variable). The consensus was to remove the paragraph as it was not well written and was not correct even if it was not deprecated.
		3. Proposed Resolution: CID 2262 (MAC): REVISED (MAC: 2019-04-02 21:12:05Z): Delete the paragraph at 781.5 through 9. Delete the paragraph at 3780.156 through 159.
		4. No objection – Mark Ready for Motion
	7. **Review doc 11-19/0597r0** Edward AU (Huawei)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0597-01-000m-resolution-for-cid-2040.docx>
		2. CID 2040 (EDITOR2)
			1. Review comment
			2. Review previous discussion from Feb 8th Telecon minutes.
			3. After consultation with the TGaj members, the confirmation was that this is a single equation, not a matrix and on one line is better choice.
			4. Review of the proposed equation. It was asked that there be a space before the first comma to make it easier to read.
			5. Discussion on whether parenthesis would help people to be able to read this. The format of the subscripts was discussed to make the equation consistent. After the group determined that we had gone to a new low of trying to group edit an equation, we determined it was good enough.
			6. Suggestion to send for review with some PHY experts.
			7. Action item: Edward to send to Assaf for review.
			8. Proposed resolution: Revised; incorporate the equation in 11-19.597r1 < <https://mentor.ieee.org/802.11/dcn/19/11-19-0597-01-000m-resolution-for-cid-2040.docx> > into the draft.
			9. No Objection - Mark Ready for Motion
	8. **Review doc 11-19/598r0** Edward Au (Huawei)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0598-00-000m-resolution-for-cid-2016.docx>
		2. CID 2016 (EDITOR2)
			1. Review Comment
			2. Proposed Resolution: Revised; Revised

In Figure 10-93, replace "Packet Type" with "PPDU Type".

In Figure 10-94, replace "Packet Type" with "PPDU Type".

At 3454.54, replace PACKET\_TYPE with PPDU\_TYPE

In Figure 25-12, replace "Packet Type" with "PPDU Type".

In Figure I-2, replace "Packet type" with "PPDU Type".

In Figure I-5, replace "Packet type" with "PPDU Type".

Note to the commenter: The "Packet Type" has been replaced by "PPDU Type" in Table 20-11 in D2.1. There is no "Packet Type" in Table 20-14.

* + - 1. Discussion on the change of “PACKET\_TYPE” on p3454.54 then this causes a problem when you change Figure 25-12. This will cause a ripple effect in the draft.
			2. D2.1 2028.55, 2028.62, 2032.39, 2032.48,3058.46, 3097.62, 3424.30, and 3454.55 change TRN-R-PACKET with “TRN-R”
			3. D2.1 2029.8, 2032.57, 3058.50, 3424.33, 3454.60.
			4. Also D2.1 3454.55 change “packet” to “PPDU” 3 instances.
			5. The TRN-R PPDU type has TRN-R subfields. The overload of the name is in different name spaces, so no ambiguity exists.
			6. Also D2.1 3454.30 change “packet” to “PPDU” 3 instances.
			7. Also 3058.46 change “packet to “PPDU” 3 instances.
			8. Discussion on the difference of PPDU\_TYPE vs PPDU-TYPE.
			9. CID 1379 changed in doc 11-18/1306r5. Changes made to the PPDU-TYPE. In the TX\_Vector they should be an underscore for parameters.
			10. Discussion on the convention of the Vector parameters. Getting a global convention would be helpful, but we have some amendments that do not interact enough to know the nominal convention.
			11. A Quick search found 6 locations to change PPDU-TYPE to PPDU\_TYPE.
			12. There were a few locations to change PPDU TYPE to PPDU-TYPE. – 2028.54, 2029.08, 2032.39, 2032.57 (“delete field”)
			13. This will have a revision 11-19/598R1
			14. Proposed Resolution: Revised: In Figure 10-93, replace "Packet Type" with "PPDU Type".

In Figure 10-94, replace "Packet Type" with "PPDU Type".

At 3454.54, replace “PACKET\_TYPE” with “PPDU\_TYPE”.

In Figure 25-12, replace "Packet Type" with "PPDU Type".

In Figure I-2, replace "Packet type" with "PPDU Type".

In Figure I-5, replace "Packet type" with "PPDU Type".

Replace “PPDU-TYPE” with “PPDU\_TYPE” at 2028.62, 3058.45, 3076.27, 3097.62, 3424.29, and 3471.19.

Replace “PPDU TYPE” with “PPDU\_TYPE” at 2028.54, 2029.8, 2032.39, and 2032.57 (delete “field”).

Replace “PPDU Type to TRN-T-PACKET” with “PPDU\_TYPE to TRN-T” at 2029.8.

Replace “TRN-R-PACKET” with “TRN-R” at the following locations: 2028.53, 2028.62, 2032.39, 2032.48, 3058.46, 3097.62, 3424.30, and 3454.55.

Replace “TRN-T-PACKET” with “TRN-T” at the following locations: 2029.8, 2032.57, 3058.50, 3424.33, and 3454.60.

Replace “a packet” with “a PPDU” at 3058.46, 3058.47, 3058.49, 3058.50, 3424.30, 3424.31, 3424.32, 3424.33, 3454.55, 3454.56, and 3454.59.

Note to the commenter: The "Packet Type" has been replaced by "PPDU Type" in Table 20-11 in D2.1. There is no "Packet Type" in Table 20-14.

* + - 1. No objection- Mark Ready for Motion
		1. Review EDITOR2 CIDs
			1. CID 2040. 2016, 2013, 2246, 2543, 2246.
				1. Status reviewed/stated.
	1. **Review time** – there are about 4/5 that will be gone at 4.
		1. Will continue now until about 4.
	2. **Review doc 11-19/322r2** Michael MONTEMURRO (Blackberry)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2140 (PHY)
			1. Review Comment
			2. Discussion:
* According to 11md Draft 2.0, WEP is deprecated, not obsolete.
* 1166.62, 1735.32 – Is dual CTS obsoleted or deprecated?
* 3554.7 (TKIP) – should be marked deprecated
	+ - 1. There is one location in Clause 12 that has WEP marked as Obsolete at 2519.6. Other locations should be Deprecated.
			2. At 3554.7 – there is no indication that it is Deprecated/Obsolete.
			3. Introduction does not provide definition of Depreciation or obsolete.
			4. Discussion on the value of moving WEP and TKIP to Obsolete.
			5. There was a document that identifies the use of Deprecated/Obsolete.
			6. The resolution of this CID is to make it consistent either Obsolete or Deprecated.
			7. Strawpoll:
				1. Should Alignment be Deprecated or Obsolete?

Results: Deprecated: 0 Obsolete: 9 Abstain: 4

* + - 1. Note that the comment also covers Dual CTS, 1166.62, and 1735.31. There 2 locations that have Dual CTS as Obsolete, and 10 locations that are deprecated.
			2. Review the draft to ensure we are consistent. In July we changed 1589.28 was moved to Obsolete, but not all locations made it.
			3. Proposed changes discussed:
1. At 3554.7. Add the following sentence at the end of the existing text. “This capability is obsolete. Support for this mechanism might be removed at a later revision of a standard.”
2. At 3546.36, Change “Wired equivalent privacy (WEP) algorithm This capability is deprecated (applicable only to systems that are backward compatible).
	* + 1. Direction give to Mike to make a proposed resolution and return.
	1. Review the Schedule –
		1. We will take a short break and move to PM2 schedule.
	2. **Recess at 4:00 pm**
3. **IEEE 802.11md - REVmd Adhoc Tuesday PM2 4:15-5:30pm – Intel Offices, Jones Farm, Oregon**
	1. **Called to order** at 4:15pm by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance:**
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Robert STACEY (Intel)
			6. Joseph LEVY (Interdigital)
			7. Mark HAMILTON (Ruckus/ARRIS)
			8. Edward AU (Huawei)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Yungsong YANG (Huawei)
			3. Nehru BHANDARU (Broadcom)
			4. Thomas Derham (Broadcom)
			5. Jerome HENRY (CISCO)
	3. **Patent Policy Reminder**
		1. No issues.
	4. **Review Agenda** 11-19/533r2
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. 11-19-556 – Transmit power CIDs – Thomas Derham (Broadcom)
		3. 11-19-489 - Client Privacy – Thomas Derham (Broadcom)
		4. 11-19-586 – PMKSA Caching with MAC randomization – Thomas Derham (Broadcom)
		5. Plan to follow agenda
	5. **Review doc 11-19/489r0** Thomas Derham (Broadcom)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0489-00-000m-client-privacy-discussion-cid-2689.docx>
		2. Abstract: This document provides discussion related to LB comments with CID 2689 (and also 2690, 2590).
		3. CID 2689 (PHY)
			1. Review comment and the submission.
			2. Discussion on the submission and if this is the right group to address this topic. This may be a larger topic that needs a more broader WG review and input.
			3. Discussion on trying to identify the actual GAPs and what the solutions that may be offered to address the GAPs.
			4. The target is to go to recirc in either May or July, but this area of concern may need a TIG or a different group to look at the privacy issues of fingerprinting similar issues.
			5. Discussion on the motivation of the creation of a TIG for different aspects of privacy.
			6. Discussion on how fast a TG could be formed and what may be a timeline for that.
	6. **Review doc 11-19/586** Thomas Derham (Broadcom)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0586-00-000m-pmksa-caching-and-mac-randomization.doc>
		2. Abstract: This document provides a partial resolution for comment CID 2689. The document is based on REVmd D2.1.
		3. Review Submission
		4. Discussion on the PMKID and PMKSA usage.
			1. 12.7.13 Pairwise Key Derivation
			2. Page 2607.44 to 64
			3. PMKID and caching is tied to a MAC address.
			4. Use of PMKID with a different MAC would not seem to work.
		5. Discussion on how the PMKID was derived, but not using the KCK in this submission.
		6. Concern on the usage of RSN vs this new proposal. How does the security stay decoupled from the MAC address? PMK MAC Address was bound together in the beginning.
		7. Discussion on the security implications of the PMKID and KCK and the changing of the MAC ID.
		8. Question on if the PMK or the PMKID is bound to the MAC Address?
	7. **Need to reschedule** doc 11-19/556 Thomas Derham (Broadcom).
		1. Schedule for Thursday PM1 - 1:00-3pm
		2. Tomorrow we will start at 9am with GEN CIDs.
		3. Sigurd to have a document on Thursday.
	8. **CID 2053 (Bibliography)** Michael MONTEMURRO (Blackberry)
		1. CID 2053 (PHY)
			1. Review Comment
			2. Review the references or lack there of for each entry in the Bibliography.
			3. [B47] – reference RFC 4862 – 2498/24 – This is a normative reference, so it should be included in Clause 2 not in the Bibliography.
			4. Discussion on the history of how things got into the Bibliography.
			5. No objection to the Direction.
			6. Proposed Resolution: REVISED (PHY: 2019-04-03 00:41:49Z)

With respect to D2.0,

Remove the following references from the Bibliography: [B4], [B5], [B8], [B12], [B19], [B38], [B43], [B47], [B52], [B54], and [B57].

Replace the bibliography entry for [B1] with:

“[B1] 3GPP TS 23.167, IMS emergency sessions architecture: https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=799.”

At 4434.37, change “Part 90 Subpart Z” to “Part 90 Subpart Z [B10]”

At 4555.9, change “IR.34 v4.6 [B16]” to “IR.34 v4.6 [B17]”

At 2616.22, change “IETF RFC 4493” to “IETF RFC 4493 [B45]”

At 4465.7, change “IETF RFC 2898” to “IETF RFC 2898 [B36]”

At 1435.60, change “stochastic characteristics of a Bloom filter” to “stochastic characteristics of a Bloom filter [B60]”

At 922.22, change [B22] to [B21]

* + - 1. No objection – Mark Ready for Motion.
	1. Recess at 5:39pm
1. **IEEE 802.11md - REVmd Adhoc Wednesday AM1 9-11:30am – Intel Offices, Jones Farm, Oregon**
	1. **Called to order** at 9:00am by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance:**
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Robert STACEY (Intel)
			6. Joseph LEVY (Interdigital)
			7. Mark HAMILTON (Ruckus/ARRIS)
			8. Edward AU (Huawei)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Srinivas KANDALA (Samsung)
	3. **Patent Policy Reminder**
		1. No issues.
	4. **Review Agenda** 11-19/533r3
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-03-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. Review Schedule
		3. Change times
			1. Lunch 11:30-12:30 with PM1 12:30-2pm and PM2 3:00-5:30pm
		4. Add GEN Discuss/review CIDs to end of PM2 for ones not done in AM1.
		5. No objection to the time/schedule change.
		6. Posted 11-19/533r4
			1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		7. Moved Joseph Levey – 2nd Mark HAMILTON
		8. Motion passes without objection.
	5. **GEN Comment resolutions** – Jon Rosdahl (Qualcomm)
		1. CID 2469 (GEN)
			1. We have discussed the topic in doc 18/889r1.
			2. We could either accept or make it explicit throughout.
			3. There might have been a related comment in the MDR review.
			4. There are a bunch of “fast session transfers” as well.
			5. “FST” stands for fast session transfer. So “FST fast session transfer”
			6. The FST is needed before “session transition”
			7. The document says “fast session transfer” in multiple locations.
			8. We should change “session transition” to “session transfer”.
			9. The transition refers to the higher layer mapping rather than the FST.
			10. There two types of transition: transparent or non-transparent. In this context you don’t see FST by itself.
			11. We could simply change “session transition” to “fast session transfer” (without the acronym – given this is clause 4.
			12. The use of “transition” was used in error.
			13. “Transition” refers to the mapping of the upper layers – clarifying that there are two modes: transparent, and non-transparent.
			14. Reviewing document 11-18/889r1:
				1. The document provided a resolution to CID 1030.
				2. It’s unclear whether “session transfer” and “session transition” refer to different concepts. The definition section doesn’t clearly indicate the difference between two terms.
			15. It would be better to align the text with a single term. The changes would be:
				1. The cited location (in clause 4) would need to change.
				2. (D2.1) 2445.46 and 2448.38 would also need to change.
				3. The use of “transition” in the footnote makes sense – since its referring to state transitions.
				4. There are numerous state transitions in the FST. The field remains the same for the entire process.
				5. On page 1302 at the bottom, there is a session transition element. Table 11-21 indicates the state values as well as the elements.
				6. We should be using the same terminology unless there is a clear distinction between the terms.
				7. There are three instances of “FST transition” at 1303.52, 2447.36, and 2450.
				8. At 1303.52, change “FST transition” to “fast session transfer”
				9. At 2447.36, “FST transition” should be “state transition”
				10. At 2450.11, “FST transition” should be “fast session transfer”
				11. Change the cited location “fast session transfer” rather than “FST”.
				12. At 2448.51 change “State” to “state”
			16. Proposed Resolution:

CID 2469 (GEN) REVISED (GEN: 2019-04-03 16:51:49Z) Make the following changes:

D2.1 284.37 change "the session transition" to "the fast session transfer"

D2.1 2445.46 and 2448.38 change "FST session transition" to "fast session transfer"

D2.1 1303.52 change "FST transition" to "fast session transfer"

D2.1 2447.36 change "FST transition" to "state transition"

D2.1 2450.11 change "FST transition" to "fast session transfer"

d2.1 2448.51 change "State transition" to "state transition”

* + - 1. Ready for motion
		1. CID 2135 (GEN)
			1. In CID 140, we changed the text to “antenna connector” from “antenna”
			2. We should let the PHY experts review.
			3. When there is no antenna connector, there is a typically a test port for testing.
			4. There is a definition for this term in the document (D2.1) 155.46. The comment should be rejected quoting the definition of “antenna connector”.
			5. Resolution:

CID 2135 (GEN) REJECTED (GEN: 2019-04-03 17:02:17Z) from the definition in d2.1 155.46:

antenna connector: The measurement point of reference for radio frequency (RF) measurements in a

station (STA). The antenna connector is the point in the STA architecture representing the input of the

receiver (output of the antenna) for radio reception and the input of the antenna (output of the transmitter) for radio transmission. In systems using multiple antennas or antenna arrays, the antenna connector is a virtual point representing the aggregate output of (or input to) the multiple antennas. In systems using active antenna arrays with processing, the antenna connector is the output of the active array, which includes any processing gain of the active antenna subsystem.

Which gives the suggested meaning of virtual location at the connector.

* + - 1. Ready for motion
		1. CID 2332 (GEN)
			1. The comment requests an addition to the header on every page indicating the sub-clause and page.
			2. There is no technical issue identified by the commenter.
			3. This refers to an interim draft, not the published draft. Although it would be nice to have in a published draft.
			4. The header and footer are a standard IEEE format.
			5. For the change in the published standard, the request should be made to the working group editor, Robert Stacey. It would be the working group editor’s consideration on how to move forward.
			6. For balloted drafts, TGmd will put in a request to the editors to satisfy this request.
			7. Refer this comment to the working group editor.
			8. Resolution:

CID 2332 (GEN) REJECTED (GEN: 2019-04-03 17:13:32Z) Comment does not identify an issue with the draft text.

Note to Commenter: The comment has been forwarded to 802.11 WG Editor for investigation of feasibility of tool support (for drafts) in FrameMaker and potentially for inclusion in the published standard.

* + - 1. Ready for motion
			2. ACTION ITEM: TGmd editor to send request to 802.11 WG editor.
		1. CID 2351 (GEN)
			1. This comment is related to CID 2350 (Editor)
			2. There is also “fragment BA operation”
			3. The “fragment BA procedure” is the process for fragment BA.
			4. The “fragment BA session” is an instance of executing the procedure
			5. There are multiple uses of “block ack session” which is the same as “BA session”
			6. Strictly to the comment, there is a difference between “session” and “procedure” so the comment should be rejected.
			7. There could be clean-up done to include a definition for “session”
			8. Changing “session” to “procedure” would be technically correct.
			9. “BA session” should be defined in the “procedure” session.
			10. At (D2.1) 232.43, If we change “BA operation” to “BA procedure”, the sentence seems inconsistent.
			11. Both “session” and “operation” are implied and not specifically defined.
			12. The mix of “procedure” and “operation” seem to be consistent.
			13. ACTION ITEM: Mark Rison and Mark Hamilton to investigate the resolution.
			14. More work needed.
		2. CID 2213 (GEN)
			1. This comment should be rejected with insufficient detail.
			2. Resolution:

REJECTED (GEN: 2019-04-03 18:01:33Z) 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.

* + - 1. Ready for motion
		1. CID 2272 (GEN)
			1. Adding the date was helpful in resolving comments on IEEE 802.11aq-2018 amendment.
			2. Resolution:

CID 2272 (GEN) REJECTED (GEN: 2019-04-03 18:03:45Z) An explicit reference to IEEE Std 802-2014 as a specific published reference was required for 802.11aq, and IEEE Std 802c came as an amendment afterward and has the Local MAC address definitions explicitly that are not in IEEE Std 802-2014.

* + - 1. Ready for motion
		1. CID 2238 (GEN)
			1. Is SSID specific to IEEE 802.11 or not?
			2. SSID should go into the dictionary. Therefore, it needs to go in to 3.1.
			3. If “ESS” is in 3.1, “SSID” should go into 3.1.
			4. Delete “specific” from the definition in the proposed resolution.
			5. Resolution:

CID 2238 (GEN) REVISED (GEN: 2019-04-03 18:13:42Z) - Add in clause 3.1 a definition: "service set identifier (SSID): A string used to identify the infrastructure BSSs that comprise an ESS, or to identify a non-infrastructure BSS."

* + - 1. Ready for motion
		1. CID 2356 (GEN)
			1. There is no “vendor-specific OUI definition” used in the standard.
			2. At 2398.19, “vendor-specific OI” is used. This is distinct from the definition, so the definition can be deleted.
			3. Resolution:

CID 2356 (GEN) ACCEPTED (GEN: 2019-04-03 18:20:01Z)

* + - 1. Ready for motion
		1. CID 2236 (GEN)
			1. Discussion on this comment will continue later in the agenda (towards the end of the day.
	1. **Recess** at 11:35 am PT.
1. **IEEE 802.11md - REVmd Adhoc Wednesday PM1 12:30-2pm – Intel Offices, Jones Farm, Oregon**
	1. **Called to order** at 12:34pm
	2. **Attendance**:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Joseph LEVY (Interdigital)
			6. Mark HAMILTON (Ruckus/ARRIS)
			7. Edward AU (Huawei)
		2. On WebEx only:
			1. Mark RISON (Samsung)
	3. **Review Patent Policy**
	4. **Review doc 11-19/338r2 –** Mark HAMILTON presented on behalf of Stephen MCCAAN
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0338-02-000m-proposed-comment-resolutions-anqp.doc>
		2. CID 2339 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No objection – Mark Ready for Motion
		3. CID 2338 (MAC)
			1. Review Comment
			2. From Discussion: Although ANQP queries are not defined, “ANQP Query ID” is defined. Therefore, some of the proposed changes are not required
			3. Discussion on the position of the submission discussion.
			4. CID 1241 changed “ANQP query” to “ANQP request”
				1. Note to commenter: The ANQP protocol is a request/response protocol. The information exchanged in the protocol is referred to as ANQP Request and ANQP response.

The ANQP protocol runs on top of GAS. GAS request and response frame include Query and Response information.

* + - 1. Discussion – is ANQP Query ID which is a field name is not the same as ANQP request and is this a problem. Sometimes we have changed the field names, and sometimes we do not change the field names.
			2. Proposed Resolution: Revised: Change “ANQP query” to “ANQP request” at P2401L12, P2401L16 and P2401L19.

Change “ANQP query list” to “Query List ANQP-element” at P2401, L29.

Note to commenter: The Term “ANQP Query ID” is used widely beyond the IEEE Std 802.11 Specification. Making the name change will introduce inconsistencies.

* + - 1. Straw Poll:
				1. Do we change the ANQP Query ID field name?
				2. Results: Yes - 1 No - 4 Abstain – 1
				3. We will proceed with the Proposed Resolution.
			2. No objection – Mark Ready for Motion
		1. CID 2204 (MAC)
			1. Review Comment
			2. Need to add “subfield” to the proposed change…”Venue Name Tuple subfield”.
			3. Discussion on the difference in Venue Name vs Venue URL.
			4. Discussion on deleting “position order” and replace it with “position”.
				1. Venue Name ANQP-element needs to be correlated.
			5. Discussion on change to the last sentence to delete “, as in the Venue Name ANQP element,”.
			6. Change the “the same STA” to “That Same STA”
			7. Proposed Resolution: Revised; Change

"The Venue Number field is a 1-octet field whose value corresponds to the implicit returned order value of the corresponding Venue Name Duple returned in a Venue Name ANQP-element, as defined in 9.4.5.4 (Venue Name ANQP-element). If no Venue Name Tuple subfield was returned in the Venue Name ANQP-element, then this value is 0."

To

“The Venue Number field is a 1-octet field whose value corresponds to the position (1 = 1st, 2 = 2nd, and so on) of the corresponding Venue Name Tuple subfield in a Venue Name ANQP-element from the same STA, as defined in 9.4.5.4 (Venue Name ANQP-element). If that same STA does not advertise any Venue Name Tuple subfields in the Venue Name ANQP-element, then this value is 0."

* + - 1. No objection – Mark Ready for Motion
		1. CID 2203 (MAC)
			1. Review comment
			2. Review the changes proposed.
			3. The inclusion of “is a x octet field that” is not needed in the text, as it is in the figure.
				1. This type of deletion was done due to a comment previously in other locations.
			4. Discussion on changes to be shown in the document, but the changes that are being done by other CIDs are not to be shown here.
			5. Another issue was noted, but we could not resolve the differences from an email exchange between Mark RISON and Stephen MCCAAN.
			6. Proposed Resolution: Revised; Incorporate the changes in 11-19/338r1 < <https://mentor.ieee.org/802.11/dcn/19/11-19-0338-02-000m-proposed-comment-resolutions-anqp.doc> > for CID 2203, which addresses the comment in the direction of the comment.
			7. No objection – Mark Ready for Motion
		2. CID 2204 (MAC) Revisit
			1. There was a need to revisit the resolution to correct some minor wording errors.
			2. UPDATED Proposed resolution: Replace

 "The Venue Number field is a 1-octet field whose value corresponds to the implicit returned order value of the corresponding Venue Name Duple returned in a Venue Name ANQP-element, as defined in 9.4.5.4 (Venue Name ANQP-element). If no Venue Name Tuple subfield was returned in the Venue Name ANQP-element, then this value is 0."

with

"The Venue Number field identifies the position (1 = 1st, 2 = 2nd, and so on) of the corresponding Venue Name Tuple subfield in a Venue Name ANQP-element from the same STA, as defined in 9.4.5.4 (Venue Name ANQP-element). If that same STA does not advertise a Venue Name ANQP-element or does not advertise any Venue Name Tuple subfields in the Venue Name ANQP-element, then the Venue Number field is set to 0.".

* + - 1. No objection – Mark Ready for Motion
		1. CID 2202 (MAC)
			1. Review Comment
			2. Change “T” to “R” for three entries
			3. Proposed Resolution: Accept
			4. No objection – Mark Ready for Motion
		2. CID 2687 (MAC)
			1. Review Comment
			2. Proposed resolution: Reject. This mechanism already exists within GAS. See clause 11.23.3.2.3. d) on page 2388.
			3. No objection – Mark Ready for Motion
		3. CID 2684 (MAC)
			1. Review Comment
			2. While this could be an Accept, the “k” needs to be in italics.
			3. Proposed Resolution: Accept.

Note to Editor, the “k” is in italics. The description of the change is as follows:

Change

"For example, when the Number of Hash Functions field is equal to 1, the first two hash..." to

"For example, when the Number of Hash Functions field is equal to 1, k = 2 and the first two hash..." where “k” is in italics.

* + - 1. No Objection – Mark Ready for Motion
		1. CID 2679 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept. – Note to editor, this changes “shall” to “may”.
			3. No Objection – Mark Ready for Motion
	1. **Review doc 11-19/322r2** Michael MONTEMURRO
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2194 (PHY)
			1. Review Comment
			2. WS could be White Space or Wakeup Schedule.
			3. We could change “WS” in B.2 with TVWS to make isolated changes.
			4. Proposed Resolution: Revised; Replace the WS acronym with TVWS in B4.26 and delete the WS acronym in B.2.2. Also add “WS Wakeup schedule” to clause 3.4. at 2179.14, remove italic from “STA”.
			5. Ran out of time. Will resume later.
	2. Recess at 2:00pm
1. **IEEE 802.11md - REVmd Adhoc Wednesday PM2 3:00-5:30pm – Intel Offices, Jones Farm, Oregon**
	1. Called to order at 3:22pm by the TG Chair, Dorothy STANLEY (HPE)
	2. Attendance:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Robert STACEY (Intel)
			6. Joseph LEVY (Interdigital)
			7. Mark HAMILTON (Ruckus/ARRIS)
			8. Edward AU (Huawei)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Srinivas KANDALA (Samsung)
			3. Yungsong YANG (Huawei)
	3. Patent Policy Reminder
		1. No issues.
	4. Review 11-19/260r12 MDR Review - Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0260-12-0000-revmd-mdr-report.docx>
		2. Review updates received – Joseph LEVEY (Interdigital)
		3. Editor AdHoc Group recommends acceptance of Joe’s proposed changes.
		4. Review proposed changes to 11.32.2 General FST Rules (#1030).
		5. Change references to four locations: 9.4.2.145, 9.6.20.4, 9.6.20.5 and 9.6.20.6.
		6. With this review complete, the editors will speculative edit the changes into D2.2.
	5. **Review doc 11-19/322r2** Michael MONTEMURRO
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2194 (PHY)
			1. Return to review CID changes.
			2. In E.2.5, p4347.42, Need to change name of RFC7545 to be correct. “Protocol to Access White-Space (PAWS) Databases”.
			3. A Typical reference should be made here.
			4. Proposed Resolution: REVISED (PHY: 2019-04-03 22:58:45Z) - Replace with the WS acronym with TVWS in B.4.26 and delete the WS acronym in B.2.2. Also, add “WS wakeup schedule” to clause 3.4. At 2179.14, remove the italics for the word STA. And in E.2.5, page 4347 line 42, replace " IETF Protocol to Access WS database ‘paws-protocol’ with "IETF RFC 7545 [B??]”

Add bibliography entry in Annex A: “[B??] IETF RFC 7545: Protocol to Access White-Space (PAWS) Databases”

* + - 1. Mark Ready for Motion
		1. CID 2199 (PHY)
			1. Review Comment
			2. Discussion on if 12.9.2 is normative or not, and then if there is something that is normative in 12.9.2, then it should be moved elsewhere.
			3. 12.9.2 is very large set of pseudocode, and there is not an easy way to verify the correctness or incorrectness of the code.
			4. Note that the reference to B4.1.1 should be B.4.4.1.
			5. Need to make the resolution Revised to add a deletion of text reference.
			6. Strawpoll: Should we delete the pseudocode?
				1. Results: Yes: 7 No: 2 Abstain: 0
			7. Proposed Resolution: REVISED (PHY: 2019-04-03 23:16:15Z) - (D2.0) Delete 12.9.2 and all its subclauses (page 2658 line 42 - page 2669 line 21).

In 5.1.2 (page 298 line 45), replace "the decision tree for CCMP, GCMP, and BIP defined in 12.9 is driven by MIB attributes" with "the decision tree for CCMP, GCMP, and BIP is driven by MIB attributes".

In B.4.4.1 (page 3553 lines 24-39) PC34, delete References column items 12.9.2, 12.9.2.2, 12.9.2.4, 12.9.2.6, 12.9.2.8.

In B.4.4.1 (page 3557 lines 43-56) PC34.1.10, delete References column items 12.9.2.3, 12.9.2.5, 12.9.2.7, 12.9.2.9.

Additionally, at 2583.54, delete the “(See … frames.)”

* + - 1. Mark Ready for Motion
		1. CID 2295 (PHY)
			1. Review Comment
			2. Discussion on how to un-deprecate.
			3. Review P4260.29 - for status changes required.
			4. Discussion on when this was originally deprecated and the history of when it was deprecated should be checked. D2.0 243.46 and 344.10 has AuthenticateFailureTimeout.
			5. SMTBASE5 includes it, but it is also should have been deprecated, but the current SMTBASE15 is the current one.
			6. There is a reference in the MLME – See 343.9.
			7. SMTBASE15 is a REVmd change, so we can change it still.
			8. Request to add it back to 13-14-15 and 14 is under the control of 11ax.
			9. Need to check the MIB SMTBASES assignment to ensure it was assigned properly.
			10. The MIB Variable value need to understand if it is really needed.
			11. See 12.12.235 as a reference to the variable.
			12. Assign to Mark HAMILTON/Mark RISON for more review.
		2. CID 2341 (PHY)
			1. Review Comment
			2. Discussion on if the max is MPDU or PSDU. The 11ax amendment is not within the scope of REVmd. See 807.42, Table 9-25. Which has a max value of 4692480.
			3. Need to include the page reference for the change.
			4. Proposed resolution: REVISED (PHY: 2019-04-03 23:43:26Z) Change 65536 to 4692480 at 4110.7 and 4110.27. Note to commenter, the P802.11ax amendment is not within the scope of REVmd. See table 9-25 (807.42 relative to D2.0).
			5. No objection – Mark Ready for Motion.
		3. CID 2352 (PHY)
			1. Review Comment
			2. Discussion on the sentence to be deleted.
			3. Proposed Resolution: ACCEPTED (PHY: 2019-04-03 23:52:49Z)
			4. No objection – Mark Ready for Motion.
		4. CID 2353 (PHY)
			1. Review Comment
			2. Review Figure 12-25 for BIP AAD Construction.
			3. The cited sentence should be deleted.
			4. There may be similar issue at p2564.60. The Duration field is identified as not included. It is different.
			5. Proposed Resolution: ACCEPTED (PHY: 2019-04-03 23:58:34Z
			6. No Objection – Mark Ready for Motion
		5. CID 2354 (PHY)
			1. Review Comment
			2. Discussion on modifying the proposed change to adjust the wording to clearly note where the fields are coming from. Change for 2571.00.
			3. 2565.18 may need the same style. 2564 may also get a comment in a future round of review.
			4. Proposed Resolution: REVISED (PHY: 2019-04-04 00:06:51Z) - Change the cited text at the referenced location to "The AAD construction shall use the following fields copied from the MPDU header:

a) FC—MPDU Frame Control field, with the following modifications:”

* + - 1. No Objection – Mark Ready for Motion.
		1. CID 2403 (PHY)
			1. Review Comment
			2. The Reference to the RFC should be included in the resolution.
			3. There is only one location of XOR in the draft, and it does not use the defined symbol.
			4. Proposed Resolution: REVISED (PHY: 2019-04-04 00:14:23Z) - According to IETF document RFC 4181, RFC 3418, RFC 2579 regarding MIB modules, the convention for exponent is to use “^”. At the following locations, change “\*\*” to “^”:

• 3794.55

• 3795.9

• 3969.34

• 3973.39

• 4045.5

• 4045.7

• 4045.23

• 4045.24 (2 times)

• 4045.39

• 4045.40

• 4055.32

• 4056.58

• 4112.38

• 4112.54

• 4135.11

• 4135.31

• 4137.44

• 4137.64

* + - 1. No objection – Mark Ready for Motion
		1. CID 2408 (PHY)
			1. Review Comment
			2. Changing “frame type” back to “packet type” for IEEE 802.1X.
			3. Discussion on the field type in the 802.1X. – Field in the Frame is called Packet Type and call them EAPOL PDU.
			4. Proposed Resolution: REVISED (PHY: 2019-04-04 00:17:30Z) - At cited location, replace “Only IEEE 802.1X frame types EAP-Packet and EAPOL-Start are valid …” with “Only IEEE 802.1X packet types EAPOL-EAP and EAPOL-Start are valid …”
			5. No objection – Mark Ready for Motion
		2. CID 2493 (PHY)
			1. Review Comment
			2. Proposed Resolution: ACCEPTED (PHY: 2019-04-04 00:23:28Z)
			3. No Objection – Mark Ready for Motion
		3. CID 2512 (PHY)
			1. Review Comment
			2. Review changes that should made in 12.6.3.
			3. Discussion on what RSNA capable vs RSNA enabled. Definition is in 3.2. p194.1.
			4. There is also a dot11RSNAActivated that should map to enabled.
			5. Discussion on the sentence that will be inserted.
			6. Proposed Resolution: REVISED (PHY: 2019-04-04 00:39:49Z) - Insert a new para at the start of the referenced subclause add "The requirements in this subclause apply to a STA when dot11RSNAActivated is true." Delete "RSNA capable" and "RSNA-enabled" and "RSNA enabled" throughout.
			7. No Objection - Mark Ready for Motion
	1. Plan for Tomorrow:
		1. Start with Ganesh.
		2. Sigurd will call in for PM1.
		3. Start time is 9am.
		4. Need to add doc 11-19/607 – CID 2574 – Emily QI – added to Thursday PM2.
	2. Recessed at 5:43 pm
1. **IEEE 802.11md - REVmd Adhoc Thursday AM1 9-11:30am – Intel Offices, Jones Farm, Oregon**
	1. Called to order at 9:00am by the TG Chair, Dorothy STANLEY (HPE)
	2. Attendance:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Ganesh VENKATESAN (Intel)
			6. Joseph LEVY (Interdigital)
			7. Mark HAMILTON (Ruckus//CommScope)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Srinivas KANDALA (Samsung)
			3. Graham SMITH (SR Technologies)
			4. Menzo WENTINK (Qualcomm)
	3. Patent Policy Reminder
		1. No issues.
	4. Agenda 11-19/533r4
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. Review Schedule
			1. 11-9-503 – Ganesh Venkatesan assigned CIDs
			2. CIDs 2141, 2243, 2572
			3. CID 2289 Delayed Block Ack
			4. 11-19-574 - 2300, 2640, 2491, 2483, 2388, 2139
	5. Review doc 11-9-503r1 – assigned CIDs Ganesh Venkatesan
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0503-01-000m-resolutions-to-some-ftm-related-cids.docx>
		2. CID 2399 (MAC)
			1. Review Comment
			2. Proposed resolution: REJECTED (MAC: 2019-04-04 16:23:36Z):

Not all primitives described in Clause 6 have a diagram/reference in the rest of the specification. An example is MLME-TIMINGMSMTRQ.

The description of MLME-FINETIMINGMSMTRQ in Clause 6 describe how these primitive result in a Fine Timing Measurement Request to be transmitted; and at the receiver results in a corresponding indication. Figures 11-34, 11-35 and 11-36 describe the initial Fine Timing Measurement Request and initial Fine Timing Measurement exchange. This is how the MLME-FINETIMINGMSMTRQ describe in Cl. 6 gets used in the specification.

Initial Fine Timing Measurement Request/initial Fine Timing Measurement exchange constitutes FTM Session negotiation and is not the context of Figure 6-17. Adding the primitives that trigger this exchange to Figure 6-17 could be confusing. Figure 6-17 describes where timestamps t1, t2, t3 and t4 are captured. When ASAP=1, the initial Fine Timing Measurement in addition to being a response to the initial Fine Timing Measurement Request, also causes timestamp measurement.

* + - 1. Discussion on the proposed resolution and if the primitives are adequately described. Should primitives be added to the figure to show the relationship?
			2. Review figure 6-17. See 6.3.68.2.x for descriptive text.
			3. The point of contention was if there is a diagram or if operation being clearly described.
			4. P2346- Fig 11-34, shows over the air interaction, but not the SME interaction.
			5. Clause 6 defines the primitives; the concern is that in Clause 11 (etc) that need states or shows when the exchange occurs.
			6. Strawpoll: Do you support the reject rationale as stated?
				1. Results: Yes: 6 No: 0 Abstain: 2
			7. Mark ready for Motion
		1. CID 2380 (MAC)
			1. Review Comment
			2. From Discussion: “In addition to the issues pointed by the commenter, the current version of the note has a maintenance problem – if additional fields are added to the Fine Timing Parameters element, the note in its current form will need a corresponding update. The recommended change avoids this problem.”
			3. Proposed Resolution: ACCEPTED (MAC: 2019-04-04 16:26:06Z)
			4. No objection – Mark Ready for Motion
		2. CID 2641 (MAC)
			1. Review comment
			2. From Discussion:

<from submission 11-18-0885r12 resolving CID #1364>

CID #326 is similar to this comment and was discussed in REVmd during the Comment Collection #25 cycle. CID #326 proposed replacing RTT with ‘a two way ToF’. At that time CID #326 was rejected with the resolution “REJECTED (MAC: 2017-10-06 17:12:30Z): The 802.11 definition of RTT is provided in equation 11-5, consistent with the usage in the Standard. There is no technical error.”

Feedback from Jonathan:

The term RTT is widely used in the market place (some popular OS implementations refer to this quantity as RTT). Changing this to RTTOA while technically correct will cause unnecessary confusion in the market.

* + - 1. Discussion on the value of RTT vs RTTOA. In external standards usage is RTT and changing to RTTOA would cause an inconsistency in industry usage.
			2. Proposed Resolution: Rejected; The 802.11 definition of RTT is provided in equation 11-5, consistent with the usage in the Standard. There is no technical error. See D2.0 2348.33.

Additionally, the term RTT is widely used in the market place (some popular OS implementations refer to this quantity as RTT). A Change to the 802.11 specification could introduce inconsistency and confusion.

* + - 1. Discussion on the overload of RTT (over the air) and the “true” RTT time from MAC send/receive.
			2. Proposal to add at 239.24, add “over the air” after the “(RTT)”. This could clarify what the RTT is being defined. This could also be added in the equation 11-5.
				1. Changes to clause 4 may not provide a definitive change as requested in the comment.
			3. The Definition of RTT within 802.11 is clear but may not match exactly with some other RTT definitions in other places.
			4. Discussion on what the Resolution could be: REJECTED (MAC: 2019-04-04 16:27:38Z): The 802.11 definition of RTT is provided in equation 11-5, consistent with the usage in the Standard. There is no technical error.

Additionally, the term RTT is widely used in the market place (e.g., some popular OS implementations refer to this quantity as RTT, Wi-Fi Alliance's Location Orientation document uses the term). A change to the 802.11 specification could introduce inconsistency and confusion.

* + - 1. Proposed Revised: Revised in D2.0, 239.24 (RTT) over the air between

D2348.31 The round-trip time (RTT) over the air is defined by Equation (11-5).

* + - 1. Strawpoll: Reject or Revise?
				1. Results: 4 – 3 – 1
				2. Proceed with reject.
			2. Final Draft of Proposed Resolution: REJECTED (MAC: 2019-04-04 16:27:38Z): The 802.11 definition of RTT is provided in equation 11-5, consistent with the usage in the Standard. There is no technical error.

Additionally, the term RTT is widely used in the market place (e.g., some popular OS implementations refer to this quantity as RTT, Wi-Fi Alliance's Location Orientation document uses the term). A change to the 802.11 specification could introduce inconsistency and confusion.

* + - 1. Mark Ready for Motion
		1. CID 2605 (MAC)
			1. Review comment
			2. Discussion on the reason for the reject.
			3. Proposed resolution: CID 2605 (MAC): REJECTED (MAC: 2019-04-04 16:56:14Z): Initial Fine Timing Measurement includes fields like Partial TSF Timer and Time Synchronization Information which carry time-critical information. Retrying initial Fine Timing Measurement frame when ASAP=0 may render the value in these fields useless.
			4. No objection – Mark Ready for Motion
		2. CID 2115 (MAC)
			1. Will need more time to prepare.
			2. Will add to the April 26th telecon.
	1. **Review 11-19/322r2** Michael MONTEMURRO (Blackberry)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2141 (PHY)
			1. Review history of related CIDs
				1. Still need to wait on CID 2140 before discussion.
				2. CID 2243 should be covered by the same resolution as CID 2140.
		3. CID 2140 (PHY)
			1. Review where we left off with a strawpoll from Tuesday.
			2. Review proposed Resolution text.
			3. In REVmc, 11-15/532r65 (comment spreadsheet) shows CID 7732
				1. <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-65-000m-revmc-sponsor-ballot-comments.xls>
			4. Review 11-16/616r0 minutes from Warsaw
				1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0616-00-000m-minutes-revmd-may-2018-warsaw.docx>

**Straw Poll** (Chicago rules):

A) Delete text related to WEP, TIKIP and ARC4.

B) Delete WEP text only, make TKIP Obsolete.

C) Delete WEP and remove TKIP as a pairwise cipher (continue supporting TKIP as a group cipher).

D) Do nothing

**Straw Poll Results:** A) 1 B) 10 C) 8 D) 11

2nd straw poll:

**Another Straw Poll** (pick one):

A) Delete WEP text only, make TKIP Obsolete.

B) Delete WEP and remove TKIP as a pairwise cipher (continue supporting TKIP as a group cipher).

C) Do nothing

**Another Straw Poll Results:** A) 6 B) 4 C) 12

**Straw Poll #3:** Mark TKIP as Obsolete?

**Straw Poll #3 Results:** Y: 6 N: 12

* + - 1. Discussion on the status of WEP and TKIP being either Obsolete or Deprecated. From a review of the minutes, we have a mixed review of what we believe the correct state should be. In May, we will have a separate Motion to look for the groups consensus for how to treat this.
			2. In REVmc, 12.3.1, there is a statement that All PRE-RSNA is obsolete, and that is used in the argument that the state should be obsolete, but with the other locations saying deprecated, we should make this consistent.
			3. Proposed Resolution: REVISED. (WEP and TKIP)

At 203.35 replace "A deprecated" with "An obsolete"

At 298.48 change "deprecated" to "obsolete".

At 298.52 change "TKIP is deprecated" to "TKIP is obsolete".

At 2513.24 change "deprecated" to "obsolete".

At 2513.28 change "deprecated" to "obsolete".

At 3546.38 change "deprecated" to "obsolete".

At 3664.18 change "deprecated" to "obsolete".

At 3554.7. Add the following sentence at the end of the existing text. “This capability is obsolete. Support for this mechanism might be removed in a later revision of the standard.”

At 3546.36, Change “Wired equivalent privacy (WEP) algorithm. This capability is deprecated (applicable only to systems that are backward compatible).” To “Wired equivalent privacy (WEP) algorithm. This capability is obsolete. Support for this mechanism might be removed in a later revision of the standard.”

(dual CTS) At 1166.62 (dual CTS) change "deprecated" to "obsolete".

At 1735.32 change “deprecated” to “obsolete”.

At 3664.18 change “deprecated” to “obsolete”.

(dual beacon) At 1166.50 (dual beacon) change "deprecated" to "obsolete".

Note to commenter: This resolution adds to the changes suggested by the commenter.

* + 1. CID 2141 (PHY)
			1. Review Comment
			2. Discussion on the addition of a statement of non-maintenance for obsolete/deprecated.
			3. Proposed Resolution: REVISED. At the end of the paragraph at 9.25, add the following sentence: “Generally, features that are marked deprecated or obsolete are not maintained.”
			4. No objection – Mark Ready for Motion
			5. It would be good to capture the progression from deprecation to obsolete to removal. There should be a way to help the Task Groups be aware that there are clauses that should not be updated.
		2. CID 2243 (PHY)
			1. Review Comment
			2. The resolution is similar to the CID 2140 and we should include that resolution in this CID.
			3. Proposed Resolution: REVISED.

Note to editor: This resolution is the same as CID 2140.

At 203.35 replace "A deprecated" with "An obsolete"

At 298.48 change "deprecated" to "obsolete".

At 298.52 change "TKIP is deprecated" to "TKIP is obsolete".

At 2513.24 change "deprecated" to "obsolete".

At 2513.28 change "deprecated" to "obsolete".

At 3546.38 change "deprecated" to "obsolete".

At 3664.18 change "deprecated" to "obsolete".

At 3554.7. Add the following sentence at the end of the existing text. “This capability is obsolete. Support for this mechanism might be removed in a later revision of the standard.”

At 3546.36, Change “Wired equivalent privacy (WEP) algorithm. This capability is deprecated (applicable only to systems that are backward compatible).” To “Wired equivalent privacy (WEP) algorithm. This capability is obsolete. Support for this mechanism might be removed in a later revision of the standard.”

(dual CTS) At 1166.62 (dual CTS) change "deprecated" to "obsolete".

At 1735.32 change “deprecated” to “obsolete”.

At 3664.18 change “deprecated” to “obsolete”.

(dual beacon) At 1166.50 (dual beacon) change "deprecated" to "obsolete".

* + - 1. After discussion, we determined that this set of CIDs would be separate for discussion in the May Interim Session.
	1. CID 2572 (PHY)
		1. Review Comment
		2. Review CID 1188:
			1. Comment: It looks like IEEE Std 802.11-2016 lost the "Deprecated" AKM entry in Table 12-8 (Integrity and key-wrap algorithms). However, there is still text referring to that entry just above this table (see P802.11REVmd/D1.0 page 2414 line 53: 'The AKM of "Deprecated" indicates..'). This "deprecated" entry needs to be maintained as long as the standard continues to include support for TKIP and the special case of Key Descriptor version 1 used in EAPOL-Key frames. In other words, the entry from IEEE Std 802.11-2012 needs to be restored.
			2. Proposed Change: Insert a new row into Table 12-8 (Integrity and key-wrap algorithms) as the first entry after the header row with the following values: AKM=Deprecated, Integrity algorithm=HMAC-MD5, KCK\_bits=128, Size of MIC=16, Key-wrap algorithm=ARC4, KEK\_bits=128, KCK2\_bits=0, KEK2\_bits=0.
			3. Resolution: Accept
			4. Adhoc Notes:

PHY: 2018-05-25 15:05:24Z - status set to: Ready for Motion

This is not a deprecated feature, it is a valid frame and field, with a possible value that indicates reference to a deprecated item.

 PHY: 2018-05-07 12:22:00Z -Mark R - April 24 - Reflector

This needs to be rejected because "the task group has

determined that they are not making any changes associated with

obsolete/deprecated features"…

* + - 1. The group saw a value that was not clearly obsolete/deprecated issue.
		1. Review of CID 1441 and CID 1518
			1. In one case we rejected it was stated that WEP is obsolete, and in the other case it stated it was deprecated, but that obsolete/deprecated is not maintained.
		2. Discussion on why the inconsistency in some views of how comments are being resolved. How proposals are evaluated was discussed.
		3. Proposed Resolution: REJECTED. Generally, features that are marked deprecated or obsolete are not maintained. For CID 1188, the following rationale was considered in accepting the comment: “This is not a deprecated feature, it is a valid frame and field, with a possible value that indicates reference to a deprecated item.”
		4. Mark Ready for Motion
		5. This CID will be set aside with a separate motion in May.
	1. CID 2289 (PHY)
		1. Review comment
		2. Review the specifics for marking MIB Entry as obsolete are covered in 11-xx/xxxx.
		3. Review the table 5-529 (see line 7). See D2.0 821.15, this is a more confusing example.
		4. Action Item: Menzo to review the proposed changes and bring back a proposed resolution.
		5. Assign to April 12th Telecon agenda.
	2. **Review doc 11-19/574** Graham SMITH (SR Technologies).
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0574-01-000m-resolutions-for-backoff-and-obsolete-comments-d2.docx>
		2. CID 2491 (MAC)
			1. Review comment
			2. Review the discussion in the submission.
			3. Proposed Resolution: ACCEPTED (MAC: 2019-04-04 18:24:40Z)
			4. No objection – Mark Ready for Motion
		3. CID 2483 (MAC)
			1. Review Comment
			2. Discuss the Discussion in the submission.
			3. Review the context in D2.0 1734.43-52.
				1. Proposed to delete “using the DCF” at 1734.43.
				2. Propose to change the paragraph to a note at 1734.50.
			4. Proposed resolution: CID 2483 (MAC): REVISED (MAC: 2019-04-04 18:33:41Z): Delete "using the DCF" at P1734.43. Make the sentence at 1734.50 a NOTE, and change "shall precede" to "precedes"
			5. No objection – Mark Ready for Motion
		4. CID 2139 (MAC)
			1. Review Comment
			2. Feedback given and will come back with a new revision.
				1. The existing sentence needs to be fixed to make the new sentence mutually exclusive.
				2. Add a trailing lower case 's' at the end of SIFS"
			3. Assign to the April 12th Telecon for review.
		5. The other 3 CIDs will also be on the 12th April Telecon.
	3. Recess at 11:42am
1. **IEEE 802.11md - REVmd Adhoc Thursday PM1 1:00-3:00pm – Intel Offices, Jones Farm, Oregon**
	1. Called to order at 1:00pm by the TG Chair, Dorothy STANLEY (HPE)
	2. Attendance:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Joseph LEVY (Interdigital)
			6. Mark HAMILTON (Ruckus//CommScope)
			7. Edward AU (Huawei)
		2. On WebEx only:
			1. Sigurd SCHELSTRAETE (Quantanna)
			2. Mark RISON (Samsung)
			3. Thomas Derham (Broadcom)
			4. Srinivas KANDALA (Samsung)
	3. Review Patent Policy
		1. No issues noted.
	4. Review Agenda 11-19/533r4
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. Presentations scheduled:
			1. 11-19/335 – CID 2708 - Sigurd
			2. 11-19/336 – CID 2709-2711 - Sigurd
			3. 11-19-556 – Transmit power CIDs – Thomas Derham
			4. 11-19-322 – PHY CIDs – Mike Montemurro
	5. **Review doc 11-19/335r0** Sigurd SCHELSTRAETE (Quantanna)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0335-00-000m-cid-2708.docx>
		2. CID 2708 (PHY)
			1. Review Comment
			2. Proposed Resolution: ACCEPTED (PHY: 2019-04-04 20:05:29Z)
			3. No objection – Mark Ready for Motion
	6. **Review Doc 11-19/336r1** Sigurd SCHELSTRAETE (Quantanna)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-01-000m-cids-2709-2710-2711.docx>
		2. CID 2711 (PHY)
			1. Review the comments and the proposed changes.
			2. Discussion on the differences in T\_LEG\_PREAMBLE vs T\_LEG\_TRAINING.
			3. Issues with WebEx not updated. Review the changes again to ensure all can see the changes.
			4. Proposed Resolution: Revised Incorporate the changes indicated for CID 2711 in document 11-19/336r2 <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-02-000m-cids-2709-2710-2711.docx>
			5. No objection – Mark Ready for Motion
		3. CID 2709 (PHY)
			1. Review Comment
			2. Review figure 19-27
			3. Proposed Resolution: REVISED (PHY: 2019-04-04 20:25:02Z) -
			4. In Figure 19-27, replace “(MF or non-HT preamble)” with “(MF or non-HT format)” and replace “HT\_SIG (GF preamble)” with “HT\_SIG (GF format)”.
			5. No objection – Mark Ready for Motion
		4. CID 2710 (PHY)
			1. Review comment
			2. Review Fig 19-22
			3. Proposed Resolution: REJECTED (PHY: 2019-04-04 20:30:14Z) -
			4. Use of the term “non-HT preamble” to indicate L-STF + L-LTF is consistent with the way the preamble is defined in 17.3.3.
			5. No Objection – Mark Ready for Motion.
		5. Additional Changes that need review
			1. P2916.56 – Delete the first sentence.
			2. P2929.8 – Delete “OFDM PHY preamble” in the last sentence and add to the end of the last sentence “of the SIGNAL Field”.
			3. P2931.57 Delete “PHY Preamble” and Add “of the SIGNAL field” in the second to last sentence.
			4. Discussion on the need of an introductory sentence for P2916.56.
				1. Example intro is there in 17.3.7
				2. Change to add phrase “, which follows the non-HT preamble,” after SIGNAL. And Delete “BPSK-OFDM modulated with coding rate ½”
			5. A separate motion will be prepared to adopt the Additional Changes.
				1. “Motion: Incorporate the changes in 11-19/336r2 <<https://mentor.ieee.org/802.11/dcn/19/11-19-0336-02-000m-cids-2709-2710-2711.docx> > as a separate motion.
		6. A review of preamble in Clause 17 was done in preparing this submission.
		7. Sigurd to post an R2.
	7. 11-19-556 – Transmit power CIDs – Thomas Derham
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0556-00-000m-transmit-power-related-cids.docx>
		2. CID 2088 (MAC)
			1. Review comment
			2. Look for instances of tolerance.
			3. The Editor found 4 instances.
			4. Proposed Resolution: ACCEPTED (MAC: 2019-04-04 20:52:37Z) - Note to Editor, the locations are: 996.58, 1497.11, 2285.24, 2285.48.
			5. No Objection – Mark Ready for Motion
		3. CID 2085 (MAC)
			1. Review Comment
			2. Discussion of change.
			3. Proposed Resolution: EVISED (MAC: 2019-04-04 20:56:58Z): In 9.3.3.1, Replace

“The frame body consists of the fields followed by the elements defined for each management frame subtype.”

with

“The frame body consists of fields and elements as defined for each management frame subtype.”

* + - 1. No objection – Mark Ready for Motion
		1. CID 2081, 2082, and 2083 (MAC)
			1. Review Comments
			2. Discussion on Tolerance.
			3. Proposed Resolution: REVISED (MAC: 2019-04-04 21:02:36Z):

(Note to commenter, basically, accept, but with some typo fixes and explicit instructions for clarity):

Delete sentence in 11.10.13 “The maximum tolerance for the value reported in Max Transmit Power field shall be 5 dB.”.

Delete sentence in 9.6.6.4 “The maximum tolerance for the value reported in Max Transmit Power field is ±5 dB.

In 9.4.1.19 replace

"The Max Transmit Power field is a 2s complement signed integer and is 1 octet in length, providing an upper limit, in units of dBm, on the transmit power as measured at the output of the antenna connector to be used by that AP on the current channel. See 11.10.13 (Operation of the Max Transmit Power field). The Max Transmit Power field is shown in Figure 9-103 (Max Transmit Power field)."

with

"The Max Transmit Power field is a 2s complement signed integer and is 1 octet in length. It provides an upper limit, in units of dBm, on the transmit power as measured at the output of the antenna connector to be used by the transmitting STA on the current channel. The Max Transmit Power value has a tolerance of +/-5 dB. See 11.10.13 (Operation of the Max Transmit Power field). The Max Transmit Power field is shown in Figure 9-103 (Max Transmit Power field)."

Note to Editor use typeset "+/-" symbol.

* + - 1. No Objection – Mark Ready for Motion.
		1. CID 2698 (MAC)
			1. Review Comment
			2. Review Discussion
			3. Review proposed changes.
			4. Discussion on what the consequences of ignoring the unprotected frames. Regulatory groups may not like having these elements ignored.
			5. There are lots of devices that count on the country element to know the regulatory rules.
			6. Concern that you cannot protect just elements, but rather frames.
			7. The “implication” to the existing implantation is questioned, but there are mostly should/may.
			8. The fundamental question is do we want text that allows some information to be ignored in the case of non-protected frames.
			9. Discussion on the limits for these conditions.
			10. The group did not seem to have a consensus on the direction proposed and the author will come back with an updated proposal.
		2. CID 2088 (MAC)
			1. Look at D2.1 3201.45 is another example of a Tolerance issue.
			2. There may be some more issues with Tolerances in general that needs to be reviewed.
			3. Need to also find things like "tolerance shall be maximum", will come back separately, the status of CID 2088 is still “Ready for Motion “
	1. **Review doc 11-19/322r2** Michael MONTEMURRO (Blackberry)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2522 (PHY)
			1. Review Comment
			2. Review discussion.
			3. Suggestion to put the changes in C.1 rather than C.2
				1. Include a specific page/line number. – 3770.17.
			4. Add a note that SME is not an external management entity.
			5. Review proposed updates to the resolution text.
			6. Proposed Resolution: REVISED (PHY: 2019-04-04 21:41:40Z) - The SME is a required component to operate an IEEE 802.11 STA. The SME is not an external management entity. At the end of C.1, add the following as a list bullet at the end of the bulleted list:

At 3770.19 (D2.0) “NOTE--An external management entity is a component that is beyond the scope of this standard. The SME is not an external management entity.”

* + - 1. No objection – Mark Ready for Motion
		1. CID 2523 (PHY)
			1. Review Comment
			2. Discussion on the proposed wording.
			3. When dot11STALCIConfigured is true, then dot11RMCivicLocationConfigured is false, so when an External entity writes a dot11STALCIENTRY, then the dot11RMCivicLocationConfigured must be false, and dot11STALCIConfigured has to be true.
			4. Reviewed the wording to be correct and add a comma to the first sentence.
		2. Ran out of time.
	1. Recess at 3:05pm
1. **IEEE 802.11md - REVmd Adhoc Thursday PM2 3:30-5:30pm – Intel Offices, Jones Farm, Oregon**
	1. Called to order at 3:35pm by the TG Chair, Dorothy STANLEY (HPE)
	2. Attendance:
		1. In Portland:
			1. Dorothy STANLEY (HPE)
			2. Emily QI (Intel)
			3. Jon Rosdahl (Qualcomm)
			4. Michael MONTEMURRO (Blackberry)
			5. Mark HAMILTON (Ruckus//CommScope)
			6. Edward AU (Huawei)
		2. On WebEx only:
			1. Mark RISON (Samsung)
			2. Thomas Derham (Broadcom)
			3. Srinivas KANDALA (Samsung)
	3. Review Patent Policy
		1. No issues noted.
	4. Review Agenda 11-19/533r4
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
		2. Approved Agenda:
2. **Ad-hoc Thursday PM2 – 3:30-5:30pm Pacific April 4**
	* 1. 11-19-322 – PHY CIDs – Mike MONTEMURRO
		2. 11-19-607 – CID 2574 – Emily QI
		3. GEN discuss/review CIDs - continued
		4. Remaining comment analysis – confirm all comments assigned

4.       AOB:

1. May meeting planning

5.       Adjourn

* + 1. No objection to the agenda
	1. **Resume** **Review doc 11-19/322r2** Michael MONTEMURRO (Blackberry)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
		2. CID 2523 (PHY) resumed.
			1. Return to trying to get the proposed resolution finalized.
			2. There was no RM
			3. Proposed Resolution: REVISED (PHY: 2019-04-04 22:34:39Z)

At 3872.47, change “It is written by an external management entity which sets the Value to true after it configures dot11STALCIEntry.” To “It is written by an external management entity, which sets it to true when the external management entity configures dot11STALCIEntry.”

At 3873.3, change “It is written by an external management entity which sets the Value to true when it configures dot11STACivicLocationEntry.” To “It is written by an external management entity, which sets it to true when the external management entity configures dot11STACivicLocationEntry.”

At 3872.50, change “It is written by the STA when an external management entity configures dot11STALCIEntry.” to “It is written by the SME, which sets it to false when an external management entity configures dot11STACivicLocationEntry.”

At 3873.6, change “It is written by the STA when an external management entity configures dot11STALCIEntry.” to “It is written by the SME, which sets it to false when an external management entity configures dot11STALCIEntry.”

* + - 1. No objection – Mark Ready for Motion
		1. CID 2541 (PHY)
			1. Review Comment
			2. Review discussion and proposed changes.
			3. Request to include page/line numbers to the proposed resolution.
			4. Discussion on what the PMKID definition should be.
			5. Need to include changes to 12.7.4 as well.
			6. Discussion on the interpretation of the wording.
			7. Propose adding The PMKID identifies the PMKSA selected by the Authenticator at D2.0 2626.35.
			8. Propose adding “{a} or {b}” means that exactly one of either{a} or {b} is present as the {Key Data}”
			9. Proposed Resolution: REVISED (PHY: 2019-04-04 23:07:44Z) - At 2626.35 (D2.0), add:

"- PMKID identifies the PMKSA selected by the Authenticator

 - “{a} or {b}" means that exactly one of either {a} or {b} is present as the {Key Data}”

* + - 1. No objection – Mark Ready for Motion
		1. CID 2552 (PHY)
			1. Review Comment
			2. Review Discussion
			3. Need to add page/line number if we are going to make a Revise.
			4. Proposed Resolution: ACCEPTED (PHY: 2019-04-04 23:14:19Z)
			5. No Objection – Mark Ready for Motion.
		2. CID 2626 (PHY)
			1. Review Comment
			2. Discussion on whether the comment is being accepted or if the resolution is a revision of the proposed changes.
			3. Proposed Resolution: ACCEPTED (PHY: 2019-04-04 23:23:11Z) - Note to editor, the changes are listed below.

At 2612.39, 2613.11

Change

“is the hash algorithm identified by the AKM suite selector (see Table 9-151)”

To

“is the hash algorithm specific to the negotiated AKM (see Table 9-151)”

At 2640.51,

Change

“is the hash algorithm identified by the negotiated AKM suite selector specified in Table 9-151”

To

“is the hash algorithm specific to the negotiated AKM (see Table 9-151)”

At 2681.58,

Change

“is the AKM-specific hash algorithm”

To

“is the hash algorithm specific to the negotiated AKM (see Table 9-151)”

At 2683.25 and 2685.50,

Change

“is the hash algorithm specific to the negotiated AKM”

To

“is the hash algorithm specific to the negotiated AKM (see Table 9-151)”

* + - 1. No objection – Mark Ready for Motion
		1. CID 2722 (PHY)
			1. Review Comment
			2. The changed reference should point to both 12.6.22.2 and 12.6.22.4.
			3. Proposed resolution: REVISED (PHY: 2019-04-04 23:29:21Z) - Change "see 12.6.22 (Multi-band RSNA)" to "see 12.6.22.2 (Nontransparent multi-band RSNA) and 12.6.22.4".
			4. No Objection – Mark Ready for Motion
		2. CID 2669 (PHY)
			1. Assign to May Interim Session Agenda.
		3. CID 2051 and 2670 (PHY)
			1. Assigned to Assaaf
			2. Not resolved in this submission – removed from R3 that will be posted.
	1. **Review doc 11-19-607** – CID 2574 – Emily QI
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0607-00-000m-236-proposed-resolutions-for-cid-2574.doc>
		2. CID 2574 (MAC)
			1. Review Comment
			2. Review discussion in the submission.
			3. Proposed Resolution: CID 2574 (MAC): REJECTED (MAC: 2019-04-04 23:39:22Z): A DMS Request frame includes “multiple” DMS Request elements and a DMS Request element includes “multiple” DMS Descriptors. A DMS Response frame includes “multiple” DMS Response elements and a DMS Response element includes “multiple” DMS Status. There is no requirement on matching numbers of “multiple”. As long as DMS IDs in the DMS Status fields are matching with DMS IDs in DMS Descriptor fields, it would be fine.

There is no contradiction between the cited note and cited normative sentence.

* + - 1. No Objection – Mark Ready for Motion
	1. **Review doc 11-19/247r11** Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0247-11-000m-lb236-proposed-resolutions-for-editor-adhoc.doc>
		2. CID 2599 (EDITOR)
			1. Review Comment
			2. Review the proposed changes.
			3. Proposed Resolution: Revised; Incorporate the resolution in Appendix B of 11-19/0247r12 <https://mentor.ieee.org/802.11/dcn/19/11-19-0247-12-000m-lb236-proposed-resolutions-for-editor-adhoc.doc>
		3. CID 2431 (EDITOR)
			1. Review Comment
			2. Review the proposed changes.
			3. Proposed Resolution
	2. GEN AdHoc CIDs Jon Rosdahl (Qualcomm)
		1. Notes for GEN ad-hoc portion of REVmd Thursday PM2: - Thanks Mark HAMILTON.
		2. CID 2629 (GEN):
			1. Comment requests to (re)look at issues raised on R1. But, commenter believes the comments are still valid.
			2. There are many comments in the document. Many of these seem to be resolved. Finding which are still a concern is complicated. Would be better if someone pulled out the relevant ones and updated and submitted them.
			3. CID 2629 (GEN) REJECTED (GEN: 2019-04-04 23:59:32Z) The Comment does not provide sufficient detail to understand the changes that would satisfy the commenter.
			4. Ready for motion.
		3. CID 2608 (GEN):
			1. The sentence could, in theory, apply to a historical BA agreement, even though intuitively most readers would understand it. Why not keep “existing” just to be completely clear?
			2. Also, check for other “block ack agreement’s that don’t have “existing”
			3. P1691.50, agree to delete “existing” and change the article to match.
			4. P2234.6, does not need the “existing”. Delete it.
			5. P1856.5, has “established block ack agreement”. Check for these, also. Agree to delete established and change the article to match.
			6. P2450.52, delete “established”.
			7. P2450.34, delete “established”
			8. Actually, these last two look more like reference to a future block ack agreement that is being established, and “will operate”, etc. Need to review all this off-line.
			9. There may be more…
			10. Assign to Mark Rison to review off-line.
		4. CID 2554 (GEN):
			1. Think we talked about something very similar earlier this week.
			2. 9.3.1.12, Grant frame. This is a specific frame type where the field is always a Duration, never an ID, and the frame format says only “Duration”. Agree the text can be changed, in 6 places.
			3. 9.3.1.18, Grant Ack frame. Similar. Agree to change it.
			4. CID 2554 (GEN) ACCEPTED (GEN: 2019-04-05 00:22:01Z)
			5. Ready for motion.
		5. CID 2485 (GEN):
			1. This has no proposed change.
			2. CID 2485 (GEN) REJECTED (GEN: 2019-04-05 00:23:18Z) 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
			3. Ready for motion.
		6. CID 2462 (GEN):
			1. Looked at the locations.
			2. 2373.56, this could just be “The STA”, since it only can apply to a non-AP STA or mesh STA in this context. Just saying “non-AP STA”, while technically correct (it includes mesh STAs) is just introducing confusion by being explicit about non-AP but not listing mesh.
			3. 2374.40, is similar.
			4. Others are in MIB.
			5. In these contexts, it seems that the inclusion of “mesh” is helpful, even if not technically necessary.
			6. CID 2462 (GEN) REJECTED (GEN: 2019-04-05 00:30:27Z) In the context of the cited locations, the explicit use of "non-AP STA or mesh STA" matches the condition of the section "non-AP STA and an AP or between peer mesh STAs".
			7. Ready for motion.
		7. CID 2274 (GEN):
			1. Reviewed comment. Agreed.
			2. CID 2274 (GEN) ACCEPTED (GEN: 2019-04-05 00:34:39Z)
			3. Ready for motion.
		8. CID 2267 (GEN):
			1. Reviewed comment. Agreed.
			2. CID 2267 (GEN) ACCEPTED (GEN: 2019-04-05 00:36:32Z)
			3. Ready for motion.
		9. CID 2251 (GEN):
			1. Reviewed comment. Agreed.
			2. CID 2251 (GEN) ACCEPTED (GEN: 2019-04-05 00:37:34Z)
			3. Ready for motion.
		10. CID 2249 (GEN):
			1. Reviewed comment.
			2. Need to make sure each of these occurrences must be an HT STA, and not, for example, a VHT STA that happens to be sending an HT PPDU. Will need to review each one, carefully.
		11. Out of time.
	3. Adjourned 5:45pm

**References:**

**Tuesday:**

AM1:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-01-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. [https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd- teleconference-and-ad-hoc-agendas.docx](https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-%20teleconference-and-ad-hoc-agendas.docx)
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0260-10-0000-revmd-mdr-report.docx>
4. <https://mentor.ieee.org/802.11/dcn/18/11-18-1371-01-000m-cid-1240-proposed-resolution.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0574-01-000m-resolutions-for-backoff-and-obsolete-comments-d2.docx>

 PM1:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0114-01-000m-text-proposal-for-protecting-twt-action-frames.doc>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0597-00-000m-resolution-for-cid-2040.docx>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0597-01-000m-resolution-for-cid-2040.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0598-00-000m-resolution-for-cid-2016.docx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>

PM2:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-02-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0489-00-000m-client-privacy-discussion-cid-2689.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0586-00-000m-pmksa-caching-and-mac-randomization.doc>

**Wednesday:**

 AM1:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-03-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>

PM1:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0338-02-000m-proposed-comment-resolutions-anqp.doc>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>

PM2:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0260-12-0000-revmd-mdr-report.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>

**Thursday:**

AM1:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
4. <https://mentor.ieee.org/802.11/dcn/15/11-15-0532-65-000m-revmc-sponsor-ballot-comments.xls>
5. <https://mentor.ieee.org/802.11/dcn/18/11-18-0616-00-000m-minutes-revmd-may-2018-warsaw.docx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0574-01-000m-resolutions-for-backoff-and-obsolete-comments-d2.docx>

**PM1:**

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0335-00-000m-cid-2708.docx>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-01-000m-cids-2709-2710-2711.docx>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0336-02-000m-cids-2709-2710-2711.docx>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0556-00-000m-transmit-power-related-cids.docx>
6. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>

PM2:

1. <https://mentor.ieee.org/802.11/dcn/19/11-19-0533-04-000m-2019-apr-may-tgmd-teleconference-and-ad-hoc-agendas.docx>
2. <https://mentor.ieee.org/802.11/dcn/19/11-19-0322-02-000m-lb236-comment-resolutions-montemurro.doc>
3. <https://mentor.ieee.org/802.11/dcn/19/11-19-0607-00-000m-236-proposed-resolutions-for-cid-2574.doc>
4. <https://mentor.ieee.org/802.11/dcn/19/11-19-0247-11-000m-lb236-proposed-resolutions-for-editor-adhoc.doc>
5. <https://mentor.ieee.org/802.11/dcn/19/11-19-0247-12-000m-lb236-proposed-resolutions-for-editor-adhoc.doc>