IEEE P802.11
Wireless LANs

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| Minutes REVmd AdHoc-July-August 2018 - Portland OR |
| Date: 2018-08-02 |
| Author(s): |
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Abstract

Minutes for the IEEE 802.11md REVmd AdHoc held in Hillsboro, Oregon July 31 to Aug 2nd, 2018

Location:

Intel Jones Farm (JF) Campus: Jones Farm Building 3
2111 NE 25th Ave, Hillsboro Oregon 97124, USA

1. **IEEE 802.11md – REVmd - AdHoc Tuesday July 31 9:00am – 11:30am (AM1)**
	1. **Call to Order** at 9:01am PT by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance for Tuesday:**
		1. In person:
			1. Emily QI (Intel)
			2. Dorothy STANLEY (HPE)
			3. Jon ROSDAHL (Qualcomm)
			4. Mark HAMILTON (Ruckus/ARRIS)
			5. Edward AU (Huawei)
			6. Joseph LEVY (Interdigital)
			7. Michael MONTEMURRO (Blackberry)
			8. Robert STACEY (Intel)
		2. On Bridge at some point during the day:
		3. Menzo WENTINK (Qualcomm)
		4. Peter ECCLESINE (Cisco)
		5. Jouni MALINEN (Qualcomm)
		6. Mark RISON (Samsung)
		7. Osama ABOUL-MAGD (Huawei)
		8. Youhan Kim (Qualcomm)
		9. Abhishek PATIL (Qualcomm)
		10. Po-kai HUANG (Intel)
	3. **Review Patent Policy**
		1. No issues noted
	4. **Review Participant Slide**
		1. <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>
	5. **Review Agenda**
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-02-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. Draft Agenda:
2. Call to order, attendance, and patent policy – All times local (Pacific)

a.       **Patent Policy: Ways to inform IEEE:**

1. Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
2. Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
3. Speak up now and respond to this Call for Potentially Essential Patents

If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair

b.      Participation slide: <https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

1. Comment Resolution
	1. **Tuesday July 31  9:00am – 11:30am**  **(AM1)**
		1. Peter ECCLESINE – Regulatory CIDs, including CID 1445, 1446
		2. Obsolete/Deprecate comments – discuss direction
			1. CID 1377 HT-delayed BA
			2. CID 1378 PSMP
		3. 11-18-674 Abhi PATIL – MAC address representation, and CID 1298
	2. **Tuesday July 31, 1pm – 3pm (PM1)**
		1. ~~Carlos Cordeiro 11-18-1324 Address issues with 11-18-1178~~
		2. Sigurd S 11-18-701 CIDs
		3. Robert STACEY 11-18-702
	3. **Tuesday July 31, 3:30pm – 5:30pm (PM2)**
		1. Additional ESP Gen CIDs: 1049, 1050, 1051, 1058, 1059, 1060
		2. GEN CIDs
		3. Editorial CIDs – Emily QI - CIDs 1101, 1104, 1529 and 1595 in 11-18/0658r7.
	4. **Wednesday August 1, 9:00am – 11:30am (AM1)**
		1. 11ah comments: 11-18-1099, 11-18-1100
		2. Additional 11ah CIDs
	5. **Wednesday August 1, 1pm – 3pm (PM1)**
		1. ~~11-18-674 Abhi Patil – MAC address representation~~
		2. 11-18-1306 – Mark RISON
		3. Emily QI - CID 1067 with docs 18/0873r0 and 18/0874r1
	6. **Wednesday August 1, 3:30pm – 5:30pm (PM2)**
		1. CID 1066 0 Beacon Protection – Emily QI, 11-18/0865r2; 11-18/1364r0
		2. MAC CIDs - Mark HAMILTON
		3. GEN CIDs
	7. **Thursday August 2,  9:00am – 11:30am (AM1)**
		1. Guido Hiertz – CID 1195 in 11-18-1260
		2. GEN CIDs
	8. **Thursday August 2, 1pm – 3pm (PM1)**
		1. 11-18-1306 – Mark RISON
		2. Carlos CORDEIRO 11-18-1324 Address issues with 11-18-1178
		3. Additional CIDs
		4. Plans for September meeting
2. AOB
3. Adjourn
	* 1. Add Solomon to Wednesday AM1
		2. Peter ECCLESINE indicated CID 1446 today and have doc 11-18/1366 for Tuesday PM2 slot (CIDs 1418, 1445, 1446, 1605, 1606 and 1621.
		3. No objection to the proposed Agenda – see 11-18/1351r3.
	1. **Editor Report**
		1. We have implemented the approved changes and reviewers are in the process of completing the review of potential draft.
		2. Look to have draft ready to share end of week.
	2. **CID 1445 and 1446** – Peter ECCELSINE (Cisco)
		1. CID 1445 (MAC)
			1. Review comment
			2. Proposed Resolution direction: Reject the comment – This is the only way to indicate the operating class.
			3. Discussion on the potential value of “Operating Class”.
			4. Combination of channel and frequency provide a distinct definition of which PHY is being used.
			5. Clause 3 has a definition of Operating Class – this may need to be improved to clear up the possible confusion.
			6. There are many things that are implied by the Operating Class.
			7. Concern with the 9.4.2.20.16 as an example of ambiguity.
			8. The direction would be to revise and update the definition.
		2. CID 1446 (MAC)
			1. Review Comment
			2. Discussion on the values in the tables and their usage.
			3. Discussion on not having to add the requirement of operating in ALL channels.
			4. Supported Channel element within the Operating Class should be considered.
			5. Discussion on the use of Supported Channel element.
			6. Indicating the Channels that are supported within the Operating Classes.
			7. A new information Element may be needed to give a more distinct set of channels that are being used within the AP set of channels.
			8. CID 1621 is asking to look at extending the channels as more frequency bands are being proposed to be added for use by unlicensed devices.
			9. There will soon be 8 UNNI bands, and we will need to be able to address the various Operating Classes.
			10. Discussion on just rejecting this comment and any change be done in conjunction with CID 1445.
			11. The proposed rejection may discuss that there is no requirement for the proposed change.
			12. Proposed Resolution draft: REJECTED (PHY: 2018-07-31 16:31:18Z) - There's no requirement for any PHY in a band to operate on all channels in an operating class.
			13. Peter will use the discussion and proposed draft resolution in his submission for Tomorrow PM2
	3. **Obsolete/Deprecate Comments** – Discuss Direction
		* 1. CID 1377 (GEN) HT-delayed BA
			2. CID 1378 (MAC) PSMP
			3. Report from Michael MONTEMURRO
				1. No implementation of HT-delayed BA and PSMP that would prevent them from being marked obsolete.
				2. TGah is not really using them although TGah referenced them.
			4. Discussion on HT-delayed BA use in devices in assist response, and how it may be used in the future.
			5. Discussion on the value of keeping them or removing them.
			6. Discussion on which is marked obsolete or deprecated.
			7. 10.30 (d1.0) is PSMP
				1. Suggestion to add “PSMP is obsolete. Support for this mechanism might be removed in a later revision of standard.”
			8. ACTION ITEM #1: Mark HAMILTON to prepare resolution for marking PSMP as obsolete. – Need text for the PICs as well as 10.30 and its first real use.
			9. Discussion on the process of deprecate/obsolete/removal
				1. No future promise in any of the task group’s actions.
			10. Straw Poll:
				1. Keep TG-delayed BA as obsolete (marked obsolete in 2018 revision)
				2. Delete/Remove TG-delayed BA
				3. Results: Keep: 5 Remove: 1 Abstain: 8
			11. Draft Proposed Resolution: Reject, the Task Group discussed removing the feature, and determined no change at this time. (Keep: 5, Remove: 1, Abstain : 8).
			12. Mark Ready for motion
	4. **Review doc 11-18/1350** Abhishek PATIL (Qualcomm)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1350-00-000m-resolution-for-cids-1287-1288-1300.docx>
		2. Review CIDs described in the submission which proposes resolutions for CIDs 1287, 1288 and 1300 received for TGm LB232
		3. Review proposed changes for resolving CIDs.
		4. Two different representations shown, so reference should be explicit.
		5. Discussion on the use of LSB vs MSB and if we can find a way to make the description consistent in the Standard.
		6. Discussion on the order of the bits over the air are always the same. I/G bit is always the first bit.
		7. One Numbering is desirable and having only one representation.
		8. 802-2014 – shows a similar numbering, but the LSB is on the right.
		9. Discussion on possible representation and numbering schemes discussed.
		10. Discussion on having the definition in 1.5 should not be repeated in later clauses.
		11. Discussion on just not using LSB/MSB at all.
	5. **Review doc 11-18/1296r1** Abhishek PATIL (Qualcomm)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1296-01-000m-resolutions-to-cid-1298.docx>
		2. CID 1298 (MAC)
			1. Review Comment
			2. Review proposed changes
			3. Discussion on the Legacy issue being inherited (i.e. TWT) or not. New element - Non-Inheritance element.
			4. Discussion on the fields in the new element.
			5. The use of element ID 255 extension 255 could not be used for any element if we define 255 as the terminators in this element.
			6. Discussion on when this new element would be used. This new element is to avoid the use of the “NULL” element.
			7. Concern that creation of this new element maybe hiding the main issue of something else that may be corrected differently. TWT as an example may be better to work on TWT and not create a generic addition.
			8. Discussion on the lack of understanding of the impact and how to determine the actual impact to the deployed devices using Multiple-BSSID features. How will new devices work in the presence of the feature.
			9. More work on the document and will come back with an update.
			10. Would hope to have ready for incorporating in September meeting.
	6. **Completed Agenda plan for this block**
		1. Discuss what we should do next.
		2. Robert STACEY is on the schedule for after lunch, but more offline review is requested to be done.
			1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0702-01-000m-lb232-cr-on-elements.docx>
		3. CID 1105 (MAC)
			1. Review comment
			2. Discussion on what should be in the blank cells of tables. While there is a statement at the end of the table, why not just fill in the table cells?
			3. Robert to update his document.
		4. CID 1106 (MAC)
			1. Review Comment
			2. The choice of Fragmentable or not is being questioned.
			3. CID 1107 is related, and the proposal for resolution may address the issue.
			4. Discussion on if the element can be fragmented and if so, how to describe that possibility?
			5. Need to have the intent of more data than can fit in a 255-length element is an issue.
			6. Non-Fragmented Elements are not going to be greater to 255 in length.
			7. Proposed Resolution: REVISED (MAC: 2018-07-31 18:12:15Z): Add “No” to the “Fragmentable” column for the row “Max Channel Switch Time element” (255/34). This is a short, fixed length element, so fragmentation is not needed or appropriate.
			8. Mark Ready for Motion
		5. CID 1103 (MAC)
			1. Review comment
			2. Discussion on whether to call out 255 or “support for Extended Element IDs”.
			3. Disagreement on how to call out the extension elements.
			4. An example in 6.3.3.2.2 – RequestInformation field definition discussed.
			5. Related to CID 1100.
			6. In CID 1102 – a change of “fields” to “field” is pending on the changes that may be done by CID 1103 and CID 1100.
		6. ACTION ITEM #2: Mark HAMILTON by Wednesday PM2 to bring proposed text for CID 1100, 1102 and 1103. Robert bring proposed resolution to CID 1105, 1107 on Wednesday PM2.
		7. CID 1107 (MAC)
			1. Discussion on what extensible and fragmentable means.
			2. When we say fragmentable is “NO” then it means you may not be bigger than 255 even if you may expand the field.
			3. Extending beyond is not allowed.
			4. Request not to use a hardcode 255.
	7. **Recess at 11:30am PT**
4. **IEEE 802.11md – REVmd - AdHoc Tuesday July 31 1pm – 3pm (PM1)**
	1. Called to order 13:02 PT by the TG Chair, Dorothy STANLEY (HPE)
	2. **Gen Comments** – Jon ROSDAHL(Qualcomm) - CID to discuss for direction:
		1. CID 1458 (GEN)
			1. 11-16/0276r15 – This needs more work – this needs a new submission updated to the current draft
		2. CID 1432 (GEN)
			1. Comment to be rejected using old: REJECTED (MAC: 2016-02-22 14:42:30Z): The cited NOTE does not contradict the cited text. The NOTE refers to the immediate data response which cannot be a duplicate, whereas the cited text refers to duplicate frame. (11-15/0532r65)
			2. A PS Poll expert needs to look at this – assigned to Menzo.
		3. CID 1363 (GEN)
			1. Propose to move a group of PPDU CIDs: 11-18/1306r1 – but this is not close enough
			2. Looking at 10.6.12 in mdv1.2 – adding “containing frames” looks ok.
		4. CID 1439 (GEN)
			1. Changing “PPDU address” to “Frames addressed” – may be not desirable as we are trying to remove the wording “Frames” in the specification.
			2. The group is willing to accept this comment as is. Ready for motion.
			3. Assigned to Menzo –
		5. CID 1116 (GEN)
			1. - a “TIM STA” should be “S1G STA in TIM mode” and as suggested: “non-TIM STA” changes to “S1G STA not in TIM mode”, remove the definition at 173.36 (d1.0), at P216.34 (d1.0) change “Optional support for non-TIM mode” to be “Non-TIM operation”.
			2. 1859.51 (d1.0) – to … To reschedule the awake/doze cycle.
			3. So: REVISED (GEN: 2018-07-31 20:33:06Z)Remove this definition at 173.36 (d1.0). At p216.34 (d1.0) change to "Optional support for non-TIM mode." Change the title of 10.44 (p1894.1 - d1.0) to "Non-TIM operation." at p1895.54 Change "S1G non-TIM STA" to "S1G STA in non-TIM mode"at p1895.51 - Change "S1G AP to reschedule non-TIM STA's awake/doze cycle" to "S1G AP to reschedule the awake/doze cycle of an S1G STA in Non-TIM Mode"at p1894.58 - Change "To protect TWT requester non-TIM STA's contention for medium access," to "To protect contention for medium access for an S1G STA in non-TIM mode,"Change all other occurrences of "non-TIM STA" to "S1G STA in non-TIM mode" Change all occurrences of "TIM STA" with "S1G STA in TIM mode"This resolves the comment in the direction of the commenter.
			4. Ready for motion.
		6. CID 1076 (GEN)
			1. Assigned to Alfred ASTERJADHI.
		7. CID 1527 (GEN)
			1. REVISED (GEN: 2018-07-31 21:19:09Z) at 270.06 remove the second "-" item and add a ";" to the end of the first "-" item and insert the following: "this includes when the frame was delivered via the DMS or the GCR block ack retransmission policy."
			2. Ready for motion.
		8. CID 1417 (GEN)
			1. REVISED (GEN: 2018-07-31 21:49:33Z) - After DiscoveryMode of the MLME-SCAN.request table in the 6.3.3.2.2 (the referenced subclause) add the OperationalRateSet, HT Capabilities and VHT Capabilities rows from the table in 6.3.4.2.2 (MLME-JOIN.request), and adding "Present only if ScanType = ACTIVE." to the end of the description in the rightmost cell of each added rowAlso add "OperationalRateSet", "HT Capabilities" and "VHT Capabilities" to the list of parameters of the MLME-SCAN.request in the same relative position.
			2. Ready for motion
		9. CID 1580 (GEN)
			1. Accept
			2. Ready for motion
		10. CID 1565 (GEN)
			1. No resolution move on.
		11. CID 1597 (GEN)
			1. Accept
			2. Ready for motion
		12. CID 1566 (GEN)
			1. Emily – propose to revise – fix the reference but many not additional changes.
			2. REVISED (GEN: 2018-07-31 22:18:08Z) - P497.11 change the reference to 9.6.13.10 to 9.6.13.9.Note to Commenter: The Request Mode parameter has other information that may be used by the MLME.
			3. Ready for motion
	3. **Recessed at 3:01pm**
5. **IEEE 802.11md – REVmd - AdHoc Tuesday July 31 3:30pm – 5:30pm (PM2)**
	1. **Call to Order** at 3:28pm PT by the TG Chair, Dorothy STANLEY (HPE)
	2. **Editorial CIDs** – Emily QI (Intel)
		1. Document 11-18/658r7
			1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0658-07-000m-lb232-proposed-resolutions-for-editor-ad-hoc.doc>
			2. CID 1101 – discussed in previous ad hoc – decided to reject as the current table is clear, but it was not motioned.
				1. Proposed to still reject:
				2. Reject: Having all information one table provides a single reference. The current table is clear. Also, Figure 9-136 shows the Element format. No need to add “field” in the column.”
				3. Ready for motion.
			3. CID 1104 –
				1. Propose to revise
				2. Mark has worked on this table and issue – see resolution of CID 1100 for proposed changes, currently not agreed.
			4. CID 1529 -
				1. Reject: Proprietary/Adobe Unicode codepoint are not in scope of the ballot. Unicode codepoints do not appear in the published document.
				2. Ready for Motion
			5. CID 1595
				1. Issue is that “multi-band” when the it is searched as multiband yields the hyphenated end of line instances “multi-band”
				2. Reject: The comment is out of scope of the ballot. Readers can always search both for “multi-band” and “multiband” to find all instances.
				3. Ready for motion.
			6. CID 1055 –
				1. Revised: Change "dot11RSNConfigPasswordValueTable" to "dot11RSNAConfigPasswordValueTable" Note to editor: Change already made by CID 1269.
				2. Ready for motion.
	3. **Gen CIDs** – Jon
		1. CID 1524 (GEN) – already assigned Mark Hamilton and Mark Rison
		2. CID 1501 (GEN) – already assigned to Graham Smith – should be submission required
		3. CID 1419 (GEN) - need page and line references for the editors – editors decided the need to do this. But, there are issues with a simple replace. So the changes are:
			1. P2015.42 (d1.2) – Change “PLCP Header Signal field” to “SIGNAL field”
			2. P2014.62 (d1.2) – Change “PLCP header” to PHY header”
			3. P3339.17 (d1.2) – Change “aPLCPHeaderLength” to “aPHYHeaderLength”
			4. P3339.18 (d1.2) – Change “aPLCPSIGTwoLength” to “aPHYSIGTwoLength”
			5. P3339.19 (d1.2) – Change “aPLCPSeviceLength” to “aPHYServiceLength”
			6. P1657.30 (d1.2) – Change “PLCP Header of” to “PHY header of”
			7. P1657.33 (d1.2) – Change “PLCP Header of” to “PHY header of”
			8. P1657.41 (d1.2) - Change “PLCP header of” to “PHY header of”
			9. P1657.44 (d1.2) - Change “PLCP header of” to “PHY header of”
			10. REVISED (GEN: 2018-07-31 23:20:17Z)p2015.42 - Change "PLCP Header Signal Field" to "SIGNAL field"P2041.63 - change "PLCP header" to "PHY header"p3339.17-21 - change "aPLCPHeaderLength", "aPLCPSIGTwoLength", "aPLCPServiceLength" to "aPHYHeaderLength", "aPHYS1GTwoLength", "aPHYServiceLength" (three entries in table 23-37)p1657.30 change "PLCP Header of" to "PHY header of"p1657.33 change "PLCP Header of" to "PHY header of"p1657.40 and 44 change "PLCP header" to "PHY header"
			11. Ready for motion.
		4. CID 1108 (GEN)
			1. Assigned to Alfred ASTERJADHI
		5. CID 1031 (GEN)
			1. Accept
			2. Ready for motion.
		6. CID 1032 (GEN)
			1. Accept
			2. Ready for motion.
		7. CID 1061 (GEN)
			1. REVISED (GEN: 2018-07-31 23:54:00Z) - Change "6.3.101.2.1 FunctionThis primitive is generated by the SME to request that the MLME provide an estimated throughput for apotential or existing association."to "6.3.101.2.1 FunctionThis primitive is generated by the SME to request that the MLME provide an estimate of the achievable throughput for a potential or an existing link between two STAs.""
			2. Ready for motion.
		8. CID 1321 (GEN)
			1. Assign to Jouni MALINEN
		9. CID 1051 (GEN)
			1. Matthew Fisher
		10. CID 1049 (GEN)
			1. Matthew Fisher
		11. CID 1050 (GEN)
			1. Matthew Fisher
		12. CID 1052 (GEN)
			1. Matthew Fisher
		13. CID 1058 (GEN)
			1. Matthew Fisher
		14. CID 1060 (GEN)
			1. Matthew Fisher
		15. CID 1059 (GEN)
			1. Matthew Fisher
		16. CID 1436 (GEN)
			1. Discussion on how to categorize this CID – bottom line the comment has multiple issues, the proposed resolution, only address one of the issues raised. Hence, submission required.
			2. Rejected:
			3. Ready for motion.
		17. CID 1438 (GEN)
			1. Submission required
		18. CID 1455 (GEN)
			1. Submission required
		19. CID 1461 (GEN)
			1. Submission required
		20. CID 1474 (GEN)
			1. Submission required
		21. CID 1482 (GEN)
			1. Submission required
		22. CID 1499 (GEN)
			1. Submission required
		23. CID 1456 (GEN)
			1. Submission required – 11-18/1306r1
		24. CID 1603 (GEN)
			1. Submission required – Move to PHY
		25. CID 1598 (GEN)
			1. Submission required – 11-18/0677r0
		26. CID 1240 (GEN)
			1. Submission required
		27. CID 1548 (GEN)
			1. Submission required – ARC should review
		28. CID 1066 (GEN)
			1. Submission required
		29. CID 1559 (GEN)
			1. Submission required
		30. CID 1558 (GEN)
			1. Submission required
		31. CID 1248 (GEN)
			1. Submission required
			2. Not resolved – still under discussion.
		32. CID 1417 (GEN) – Discussion on if this CID needs to be discussed – so it is no longer ready to motion – it is moved to for discussion.
	4. **Recessed at 5:30pm**
6. **IEEE 802.11md – REVmd - AdHoc Wednesday August 1 9:00am – 11:30am (AM1)**
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	2. **Attendance for Wednesday:**
		1. In person:
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			4. Edward AU (Huawei)
			5. Joseph LEVY (Interdigital)
			6. Michael MONTEMURRO (Blackberry)
			7. Emily QI (Intel)
			8. Robert STACEY (Intel)
		2. On Bridge at some point during AM1:
			1. Mark RISON (Samsung)
			2. Osama ABOUL-MAGD (Huawei)
			3. Menzo WENTINK (Qualcomm)
	3. Review patent Policy
		1. No issues.
	4. Review Agenda
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-03-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. Wednesday
			1. Michael MONTEMURRO – CID 1240 – 11-18/1371
			2. Mark HAMILTON 11-18-669r3 – MAC CIDs
			3. GEN CIDs
			4. Sigurd S 11-18/701 CIDS
		3. See 11-18/1351r4 for updated agenda
	5. **Review 11-18/1371** – Michael MONTEMURRO (Blackberry)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1371-00-000m-cid-1240-proposed-resolution.docx>
		2. The author, Stephen MCCAAN (Blackberry), was not able to present, so this submission was presented by Michael MONTEMURRO (Blackberry)
		3. CID 1240 (GEN)
			1. Review Comment
			2. From the Discussion in the submission:

The original IEEE 802.21 standard IEEE Std 802.21™-2008 “Part 21: Media Independent Handover Services” was re-arranged and enhanced by the IEEE 802.21 working group in 2016 into:

* IEEE 802.21-2017 “Part 21: Media Independent Services Framework”
* IEEE 802.21.1-2017 “Part 21.1: Media Independent Services”

superseding IEEE Std 802.21™-2008.

Many of the existing references to IEEE 802.21 within IEEE 802.11-2016 reference the original IEEE 802.21-2008 and these requires updating. However, it is not just a simple case of substituting IEEE 802.21-2008 for IEEE 802.21-2017 as it has to be determined in each case, whether 802.21 or 802.21.1 is the correct choice. In addition, the original IEEE 802.21 term Media Independent Handover (MIH) was changed to Media Independent Service (MIS) and several occurances of this require updating.

* + - 1. Discussion on changing AdvertisementProtocolID…concern with value 1 vs 0.
			2. In 11.23.4 – need to quote the proper title of the IEEE Std 802.21-2017.
			3. Questions on trying to determine rationale for changing Query format, and we were not able to resolve the argument. So, we called Stephen and asked for clarification to the page 3 statement “Note: The text refers to a Query format in IEEE 802.21-2008, which doesn’t appear to exist within either of the IEEE 802.21-2017 documents. Therefore, I recommend changing to the reference to ANQP, which is defined within IEEE 802.11-2016.”
				1. If we use the 802.21 standard, there may not be enough information to create the element.
				2. There may need to be some conversation with 802.21 committee to determine how this is formatted and how the communication is done.
				3. The format of the query field is not specifically specified in 802.21 and so the error of not having the field defined would be an error in 802.21.
				4. In the Advertisement protocol ID value 0 and 1 are defined in 802.21, and that definition may be broken, but should be fixed in 802.21. We should not mark deprecated as this would break 802.21.
				5. ACTION ITEM #3: Stephen MCCAAN – Follow-up with 802.21 to ensure that the query format for value 1 is defined.
			4. Review of the instructions to be made. Cleaned up the instructions to be clearer for the Editor to make changes. Removed distracting note.
			5. Proposed Resolution: REVISED (GEN: 2018-08-01 16:56:42Z) Incorporate the changes in 11-18/1371r1 < <https://mentor.ieee.org/802.11/dcn/18/11-18-1371-01-000m-cid-1240-proposed-resolution.docx> > These changes update the 802.21 references and corresponding terminology to the 2017 version.
			6. Mark Ready for Motion.
		1. Thank you to Stephen MCCAAN for preparing the submission.
	1. **Review doc 11-18/669r3** - Mark HAMILTON (Ruckus/ARRIS) MAC CIDs
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0669-03-000m-revmd-mac-comments-assigned-to-hamilton.docx>
		2. CID 1281 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No objection – Mark Ready for Motion.
		3. CID 1400 (MAC)
			1. Review Comment
			2. Proposed Resolution: Revised. On lines 22 and 23 at the referenced page change “MCSs” to “HT MCSs”.
			3. No objection – Mark Ready for Motion.
		4. CID 1401 (MAC)
			1. Review Comment
			2. Proposed Resolution: Revised. Make the proposed changes by adding the NOTEs at the end of bullet (d).
			3. No objection – Mark Ready for Motion.
		5. CID 1403 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No objection – Mark Ready for Motion.
		6. CID 1405 (MAC)
			1. Review Comment
			2. Discussion on changing the cited paragraph to be before the note.
			3. Straw Poll:
				1. Leave the text or Combine Paragraph and move note:
				2. Results: 3; Leave: 1; Combine: Abstain: 5.
			4. Proposed Resolution: Rejected. The requested information is already present in the paragraph following the cited text.
			5. No objection – Mark Ready for Motion.
		7. CID 1414 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No objection – Mark Ready for Motion.
		8. CID 1008 (MAC)
			1. Review Comment
			2. Proposed Resolution: Rejected. The Measurement Request field (of a Measurement Request element) is not itself a subelement and has no ID at all for which a uniqueness context can be described. Thus, 9.4.3 does not apply to this structure, so this is not a counter-example of the correctness of 9.4.3. No change to 9.4.3 seems necessary. The same logic applies to the Measurement Report structure
			3. No objection – Mark Ready for Motion.
		9. CID 1282 (MAC)
			1. Review Comment
			2. It has already been corrected in D1.2
			3. Proposed Resolution: Revised. Split the Reserved range into two sub-ranges, excluding the value 123.

Note to EDITOR: This change is already made in REVmd-D1.2.

Note to EDITOR: The representation of “Reserved” in this Table is inconsistent, sometimes appearing in the “Name” column and sometimes in the “Meaning” column. The Table should be consistent.

* + - 1. No Objection – Mark Ready for Motion.
		1. CID 1018 (MAC)
			1. Review Comment
			2. Discussion on possible issues that can occur with a frame bubbling up the stack until it is discarded.
			3. No specific example could be thought of, and we could ask the security community this question.
			4. Proposed Resolution: Revised. Append “; the point at which such filtering occurs in the processing of received frames is an implementation choice” to the end of the second sentence of the fifth paragraph of 10.2.7.
			5. No Objection – Mark Ready for Motion
			6. ACTION ITEM #4: Mark HAMILTON to check with security group for potential issue with the point of discarding frame.
		2. CID 1033 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accepted. Note to EDITOR: The copy to delete is the one at the end of the first bullet’s text in 11.1.3.9. The copy at the start of the next (non-bulleted) paragraph is to be retained.
			3. No Objection – Mark Ready for Motion.
		3. CID 1114 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No Objection – Mark Ready for Motion.
		4. CID 1305 (MAC)
			1. Review Comment
			2. Discussion on if “Change “Frames listed in” to “Action Frames with Action field values of the appropriate category as listed in” at the cited location. “ would be appropriate.
			3. Alternate proposal: Change “Frames listed in” to “Time priority Management frames are defined to be those that have a value of “Yes” in the “Time priority” column in Table 9-376 …””
			4. Proposed Resolution: Revised; Change “Frames listed in” to “Time priority Management frames are defined to be those that have a value of “Yes” in the “Time priority” column in Table 9-376 …””
			5. No Objection – Mark Ready for Motion.
	1. **GEN CIDS**
		1. CID 1579 (GEN):
			1. Looked at comment, generally agree. This text was touched by CID 297.
			2. CID 297 made it clear that the Capabilities and HT Capabilities are for the STA, not for the BSS. But, the Resolution was not clear to the Editors, and so the "for the BSS" was left in place. This CID (1579) would correct that.
			3. Proposed resolution: CID 1579 (GEN REVISED (GEN: 2018-08-01 18:17:46Z) at p307.20 Replace "The STA capabilities to be advertised for the BSS." with "Specifies the parameters in the Capability Information field that are supported by the STA."

at p307.23 Replace "The STA’s HT capabilities to be advertised for the BSS." with "Specifies the parameters in the HT Capabilities element that are supported by the STA."CID 1579 (GEN): Also, be clear this change should apply to both "Capabilities" and "HT Capabilities"

* 1. **Recessed at11:30am**
1. **IEEE 802.11md – REVmd - AdHoc Wednesday August 1, 1pm – 3pm (PM1)**
	1. **Called to order** at 1:02pm by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance:**
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Mark HAMILTON (Ruckus/ARRIS)
			4. Edward AU (Huawei)
			5. Joseph LEVY (Interdigital)
			6. Michael MONTEMURRO (Blackberry)
			7. Emily Qi (Intel)
			8. Robert STACEY (Intel)
		2. On Bridge during some part of PM1
			1. Mark RISON (Samsung)
			2. Dan HARKINS (HPE)
	3. **Review Patent Policy**
		1. No issues
	4. **Review Agenda**
		1. See 11-18/1351r4
			1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-04-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. **Wednesday August 1, 1pm – 3pm (PM1)**
			1. 11-18-1306 – Mark RISON
			2. Emily QI - CID 1067 with docs 18/0873r0 and 18/0874r1
			3. Save 30 minutes for Emily – 1.5 hours for Mark.
		3. No objections to the adjusted agenda.
	5. Review 11-18/1306r1 Mark RISON (Samsung)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1306-01-000m-resolutions-for-some-comments-on-11md-d1-0-lb232.docx>
		2. CID 1452 (MAC)
			1. Review Comment
			2. Discussion on if 700 instances the context of whether” An MPDU containing an entire MSDU is sometimes considered a fragment and sometimes not, depending on context."
			3. Discussion on what is the actual problem trying to be fixed.
			4. If we find where the text calls out a whole MSDU that is called a fragment, and fix those would be the complete fix, but that would require someone to check all 700 instances.
			5. The proposed Change does not really address the problem. A submission would need to be made to accurately address the problem. From the submission, it was pointed out : “Here an unencrypted MPDU containing an entire MSDU of size greater than dot11FragmentationThreshold is not considered a fragment:”
			6. A reject proposal will be crafted, and the CID marked ready for Motion.
			7. Proposed Resolution: REJECTED (MAC: 2018-08-01 20:15:33Z): The task group considered the Proposed Change and prefers a direction of correcting the places in the text where the fragment status of an MPDU is ambiguous. Such changes will require a submission.
			8. Mark ready for Motion
		3. CID 1507 and 1525 (GEN)
			1. Change the due date to Aug
		4. CID 1415 and 1526 (MAC)
			1. In progress
		5. CID 1480 (MAC)
			1. Review Comment
			2. Discussion of proposed changes to ED Threshold and related variables.
			3. Discussion on proposal to alternatives.
			4. Proposed Resolution: REVISED (PHY: 2018-08-01 20:31:48Z)
			5. At the end of the bullet a) in 15.4.6.5 (2780.56 in D1.2) and 16.3.8.5 (2811.4 in D1.2) add a sentence “The ED threshold is the value contained in dot11EDThreshold.”
			6. Mark Ready for motion
			7. ACTION ITEM #5: Mark RISON to send an email about CID 1480 with the proposed resolution so that the larger PHY audience can review.
		6. CID 1465 (PHY)
			1. Review comment
			2. Discussion on if MMPDU had DA or not…or even RA.
			3. Most possibilities talk about “destined to “.
			4. Suggest that “Destination” or “Destination STA” may be a good replacement.
			5. Disagreement to the change unless we review definition for “frame body field” in 9.2.4.3.5 and 9.2.4.3.7 (DA and RA field definitions).
			6. So we look at the changes separately….
			7. Proposed changes:

In 12.9.2.2 change “MSDU or A-MSDU has an individual RA” to “MSDU or A-MSDU has an individual DA”,

“MPDU has a group addressed RA” to “MPDU has a group RA”.

In 12.9.2.3 change “MMPDU has an individual RA” to “MMPDU has an individual DA” (2x),

change “MMPDU has a group RA” to “MMPDU has a group DA” (2x).

In 12.9.2.6 change “MPDU has a group addressed RA” to “MPDU has a group RA”.

In 12.9.2.7 change “MMPDU has an individual RA” to “MMPDU has an individual DA” (2x),

change “MMPDU has a group RA” to “MMPDU has a group DA” (2x).

In 12.9.2.9 change “MMPDU has individual RA” to “MMPDU has an individual DA” (2x),

“MPDU has group addressed RA” to “MMPDU has group DA”.

Change “has individual RA” to “has an individual RA” throughout.

* + - 1. Discussion on if MMPDU not having DA, SA, TA, RA fields. These terms are not yet until they transition to the MSDU.
			2. The highlighted text seemed to be correct, but more discussion would need to be done to catch the subtlety explanation.
			3. The PSDU was the same as MPDU in the distant past.
			4. Protection with an RTS/CTS is done over the full A-MPDU.
			5. So the PSDU contains (an) MPDU(s) with an individual RA.
			6. Looked at some changes to the proposed changes for harmonizing the specific changes.
			7. An update to this section will need to be made.
		1. CID 1379 (EDITOR)
			1. Review comment
			2. Discussion of “packet”
			3. Review the Style guide for the use of “packet” … there should only be use of Packet if defined external.
			4. In the context of security, PN (packet number) this needs to not be changed to confuse the standard. Ensure to look at where Packet Number was used and recommended we do not make changes to the security clauses.
		2. CID 1455 (GEN)
			1. Review comment
			2. Review proposed table
			3. Change to use a clause number for the name of the PHY.
			4. Review the changes in the proposal.
			5. ACTION ITEM #6: Mark RISON to send this comment and proposed changes to the 802.11 reflector for review and discussion.
		3. Thanks to Mark for his work on this submission.
	1. **Review 11-18/0873r1 – and 11-18/0874r1**– Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0873-01-000m-igtk-switch-announcement.ppt>
		2. <https://mentor.ieee.org/802.11/dcn/18/11-18-0874-01-000m-proposed-resolution-for-cid1067.doc>
		3. One is the PowerPoint and one is the word, we will walk through the PowerPoint first
		4. The submissions discuss the CID 1067 (PHY).
		5. Review 11-18/0873r1
		6. Abstract:

This submission identifies some issues with IGTK update and provides a solution to address the issues.

The submission also provides a solution to address LB232 CID 1067

* + 1. Review submission
		2. Question on why a “switch announcement” is needed.
			1. Rather than announcing a new key for some time in the future, why not just announce the current key.
			2. Suggestion to give a few beacon warnings to allow STAs to be aware of the change.
		3. Why not allow lookahead for processing the key? What is the real problem that is being solved with this method?
		4. Devices already deal with the Key ID being changed, and not sure there is enough value in this new method.
			1. The frequency of Key change is an implementation detail, but there is an efficiency that is being suggested in this method.
		5. Discussion on the possible use cases for the key use and identification.
		6. Why can a recipient not look ahead?
			1. When this frame is received, the MMIE location should be known and a STA should be able to look ahead.
			2. If you get the whole packet, then you could look ahead, but some would like to start before it is all received.
			3. Streaming processing seems to be the burden is added to the AP.
		7. This proposal may help some stations, but will make it harder for the AP.
		8. Review slide 8
		9. Discussion on the countdown timer and the timing of the use of the old and new keys
		10. Thanks for the feedback, need to address the feedback in future revision.
		11. Review the word document 11-18/874r1
		12. Quickly rolled through the document looking at the changes being proposed.
		13. With the feedback give, more work will be done, and it will be brought back.
	1. Return to doc 11-18/1306r1
		1. CID 1453 and 1435 (GEN)
			1. Review comments
			2. Proposed changes:

Delete aPreambleLength and aPHYHeaderLength/aPLCPHeaderLength throughout (all table rows containing either, and 6.5.4.2 parameter list, and 22.4.4). In Equation (10-16) change “(aPreambleLength + aPHYHeaderLength)” to “NonHTLength” and below change “(aPreambleLength + aPHYHeaderLength) is the duration (in microseconds) of the non-HT PHY preamble and L-SIG, defined in 6.5.4 (PLME-CHARACTERISTICS.confirm)” to “NonHTLength is 20 us, the duration of the non-HT PHY preamble and L-SIG”.

Similarly delete aDataPreambleLength, aControlPHYPreambleLength, aSTFOneLength, aSTFTwoLength, aLTFOneLength, aLTFTwoLength, aPHYSIGTwoLength/aPLCPSIGTwoLength, aPHYServiceLength/aPLCPServiceLength (hard-wire to 16 in Equation (10-16)), aPHYConvolutionalTailLength (hard-wire to 6 in Equation (10-16)).

* + - 1. There is also a definition of PHY header that would need to be defined.
			2. Broader review would be needed before we could act on this.
			3. ACTION ITEM #7: Mark RISON to send the info for CID 1453 and 1435 (GEN) and proposed resolution to the Reflector for broader review.
			4. Discussion on the understanding of what is in the proposal.
			5. The idea is to remove those things that are currently being passed up to the MAC that are not actually used or referenced in the MAC.
			6. Remember that for our discussion earlier on PLCP Header comments
				1. We believe that they should all be PHY header.
				2. Yes, the proposal here is to remove all those instances.
	1. **Recess at 3:00pm**
1. **IEEE 802.11md – REVmd - AdHoc Wednesday August 1, 3:30pm – 5:30pm (PM2)**
	1. **Called to order by the chair the Chair, Dorothy STANLEY (HPE) at 3:31pm**
	2. **Attendance**:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Mark HAMILTON (Ruckus/ARRIS)
			4. Edward AU (Huawei)
			5. Joseph LEVY (Interdigital)
			6. Michael MONTEMURRO (Blackberry)
			7. Emily Qi (Intel)
			8. Robert STACEY (Intel)
		2. On Bridge at some time during PM2
			1. Dan HARKINS (HPE)
			2. Peter ECCLESINE (Cisco)
	3. **Review Patent Policy**
		1. No issues
	4. **Review Agenda – 11-18/1351r4**
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-04-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. **Wednesday August 1, 3:30pm – 5:30pm (PM2)**
2. CID 1066 0 Beacon Protection – Emily QI, 11-18/0865r2; 11-18/1364r0
3. Robert STACEY – CIDs 1105, 1107; 11-18-702
4. MAC CIDs - Mark HAMILTON – CIDs 1100, 1103, 1107; 11-18-1369
5. Joseph LEVY CIDs – 11-18-1081 CID 1268 and 11-18-1370 CIDs 1265, 1266
6. Peter ECCLESINE 11-18-1366 Regulatory CIDs 1418, 1445, 1446, 1605, 1606, 1604, 1608 and 1621
	* 1. Review agenda, we changed the order of Robert and Mark.
		2. No objection to the change to the agenda
	1. **Review Doc 11-18/0865r3 and 11-18/1364r0** – Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0865-03-000m-beacon-protection.ppt>
			1. Abstract: This submission provides solution to protect Beacon frame from “outsider” forgery. LB 232 CID #1066
		2. <https://mentor.ieee.org/802.11/dcn/18/11-18-1364-00-000m-proposed-resolution-for-cid-1066.doc>
			1. Abstract : This document provides comment resolutions for LB232 CID 1066.
		3. Review PowerPoint slides in 11-18/0865r3.
			1. Problem Statement:
* The Beacon frame contains valuable information about the BSS
* BSS capability, Supported rates and operating channel information, network information, TIM, TSF, etc.
* IEEE 802.11 doesn’t provide direct protection for Beacon frame
* Beacon RSNE contents are included in 4-ways handshake messages for verification, but it won’t protect Beacon frame from forgery after the association.
* Broadcast/Multicast integrity protocol (BIP) provides protection for group addressed robust management frames, but Beacon frames are excluded.
* The Beacon frame is subject to forgery
* Attacker can impersonate an AP and transmit Beacon frames
* STAs may change their behavior in such manner that will result with disconnections and even switch channels.
* Forged TIM may result with that STAs are unable to wake up to receive the packet or wake up frequently so that waste battery
* Forged TSF may result with that STAs are unable to receive group addressed frames
	+ - 1. Design Goal and Proposed Solution
			2. Use BIP for Beacon Protection
			3. Beacon Protection Capability and STA Behaviours
			4. Notify AP STA when a forgery is detected
			5. Multiple BSSID Beacon Protection
			6. Review “Known Issues”
				1. Proposed solution is subject to “insider” forgeries
* this issue also applies to group address robust management frame protection. A public key scheme might be considered for future study.
	+ - * 1. The Timestamp field is not included in the MIC calculation.
* Including Timestamp field may introduce more strict requirements for hardware implementation.
	+ - * 1. Since MME is added at the end of Beacon frame body, the receiving STA won’t know the Key ID until the end of the frame. Possible Solutions:
* Use current IGTK and switch to the next IGTK if Key ID mismatches (at the end) or use IGTK Switch Announcement.
	+ - 1. Summary
				1. Proposed solution leverages the existing RSN security and reuses BIP
				2. Proposed solution protects Beacon frames for associated STAs from “outsider” forgery
* All beacon contents prior to association should be validated following association based on the protected Beacon.
	+ - * 1. Proposed solution leverages WNM Notification feature to allow STAs to notify the AP when a forgery/bad beacon is detected
		1. Discussion
			1. Pointed out that in 11-06/38r3 – the suggestion was to not add security to the beacon protection (note author was Emily QI that presented this older document then also).
			2. At that time, there was an issue with potentially changing the hardware at that time that made the change not popular.
			3. The use of TIM and Timestamp in the Beacon, is used by STAs to know when to wake up, so the forging of the timestamp can be a problem. This solution does not address that particular problem.
			4. It would be complex to protect the timestamp as well.
			5. Discussion on capability to protect the beacon in different ways.
			6. Slide 22 and 23 in 11/06/383r3 had good analysis of the beacon, and that may be a good thing to update and look at what the current state is now that we are post 802.11w.
		2. Review 11-06/383r3:
			1. <https://mentor.ieee.org/802.11/dcn/06/11-06-0038-03-000w-beacon-content-protection.ppt>
			2. Look at presentation from 2006 slide 22 and 23.
		3. A STA that is associated to a BSSID that is not the base BSSID in a BSS where MBSSID is enabled, cannot validate the Beacon frame with the MIC.
		4. Discussion on the ability to protect dynamic real time stamp to be done.
		5. Request to provide more time later this week.
			1. Thursday AM1 to continue the discussion.
	1. **Review 11-18-702** - CIDs 1105, 1107 - Robert Stacey (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0702-01-000m-lb232-cr-on-elements.docx>
		2. CID 1107 (MAC)
			1. Review updated editing instructions.
			2. If the content is larger than 255 (254 on non-extended frames), then fragmentation is required. The Element Fragmentation has a threshold that dictates the fragmentation will occur.
			3. Each Element may have limits to their size, and if the size is less than the threshold, then they would not fragment.
			4. If the length is greater than 255/254 then fragmentation would need to be used to pass the information.
			5. Possible for implementations could always have non-fragmented elements by either them being smaller than threshold or truncated to be below the threshold.
			6. Proposed Resolution: REVISED (MAC: 2018-08-01 23:21:35Z): Change the paragraph to:

A “Yes” in the Fragmentable column listed in Table 9-87 (Element IDs) indicates that the element information might exceed the threshold that causes the element to be fragmented (see 10.28.11 (Element fragmentation)).

* + - 1. Mark ready for Motion
		1. CID 1105 (MAC)
			1. Review Comment
			2. Proposed resolution: REVISED (MAC: 2018-08-01 23:28:12Z): REVISED – Add a “No” to the Extensible column for all rows that currently have a blank cell (except for the reserved rows).
			3. Mark Ready for Motion
		2. CID 1103 (MAC)
			1. Review comment
			2. Discussion of the changes from last time.
			3. Review the proposed changes and the context of the change.
			4. If we remove all the usages of the An Extended Element ID, then we can remove the definition as well.
			5. Proposed Resolution: REVISED –Change the text at P289L56 from “A list of (Extension) Element IDs” to “A list of element identifiers”Change the text at P929L15 from “The Request element does not support Extended Element IDs” to “The Request element does not support elements that contain an Element ID Extension field.”Delete the following sentence at P904L10 “An Extended Element ID is a combination of an Element ID and an Element ID Extension for those elements that have a defined Element ID Extension.”
			6. Mark Ready for Motion:
	1. **Review doc 11-18/1369** Mark HAMILTON (Ruckus/ARRIS)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1369-00-000m-alternative-comment-resolution-for-extended-element-id.docx>
		2. Abstract: Proposed alternative resolutions to LB232 comments on elements: 1100, 1103, 1107

With credit to Robert Stacey, for the original version of this document (11-18/0702), from which, changes are shown in this proposal.

* + 1. CID 1100 (MAC)
			1. Review comment
			2. Review history of the editing instructions that have now changed.
			3. There is an updated needed as we just agreed to get rid of Extended Element ID.
			4. Discussion on the use of “X” vs “0” row and if the value of Element ID value should be checked for case.
			5. Discussion for the use of the Table – 1. Meaningful use of the element identifier and 2. is the format.
				1. So using the table for two purposes is wrong, and use the format in the text and just identify it in the table.
				2. This table already has the issue with the extensions being extra values.
				3. The magic numbers in the text should be avoided, and if the numbers are in the table, then it tends to not be copied in other amendments.
			6. Discussion on the marking of 255 and unused extensions. Need to include 0 in the reserved extension values.
			7. The use of “X” seems to add another ambiguity and possible solutions would be to have it blank, or use N/A and address the row in the text “Element ID 255 plus Extension Field.”
			8. Need to add CID 1102 and 1104 are added to this document for resolution.
			9. Delete 1103 and 1107 from the document as it is covered in Robert’s document.
	1. **Review agenda** for the last 30 minutes in the day.
		1. Start with Peter for today.
		2. Move Joe to AM1 on Thursday
	2. **Review Doc 11-18-1366r1 –** Peter ECCLESINE (Cisco)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-01-000m-resolutions-to-regulatory-comments.docx>
		2. Regulatory CIDs 1418, 1445, 1446, 1605, 1606, 1604, 1608 and 1621
		3. CID 1418 (PHY)
			1. Review comment
			2. Review proposed changes.
			3. Proposed Resolution: REVISED (PHY: 2018-08-02 00:10:41Z) - Agree to change definition of channel sets to indicate that not all channels must be supported. For most countries, global operating classes are the only recitation of what channels can be in a class. Behavior limits sets are not sufficiently defined to determine a global channel set from Channel Starting Frequency and Channel Spacing.

Note to TGm Editor, please make changes as shown in document <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx> having a tag

* + 1. CID 1445 (PHY)
			1. Review comment
			2. Proposed Resolution: Rejected; Operating classes are a container whose class value is necessary to calculate the center frequency for radio measurement, radio management and extended channel switching in a radio domain. Use of center frequency for operation is specific to each PHY. A operating class value may indicate an enumerated list of behavior limits in various regulatory domains.
			3. Mark Ready for Motion
		2. CID 1446 (PHY)
			1. Review comment
			2. Review proposed changes.
			3. Proposed resolutions: Revised: Incorporate the changes shown in document 11-18/1366r2 < <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx> > having a tag [1446]
			4. Mark Ready for Motion
		3. CID 1604 (PHY)
			1. Review comment
			2. Review proposed changes.
			3. Proposed resolutions: Revised: Incorporate the changes shown in document 11-18/1366r2 < <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx> > having a tag [1604]
			4. Mark Ready for Motion
		4. CID 1605 (PHY)
			1. Review comment
			2. Discussion on the change and future plans and the references to documents.
			3. Changing the “latest published versions” to include who is publishing…”
			4. Proposed resolution: REVISED (PHY: 2018-08-02 00:23:07Z)

Note to TGm Editor, please make changes as shown in document https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx having a tag [1605]

* + - 1. Mark ready for Motion
		1. CID 1606 (PHY)
			1. Review comment
			2. Discussion on the change and future plans and the references to documents.
			3. Changing the “latest published versions” to include who is publishing…”
			4. Proposed resolutions: REVISED (PHY: 2018-08-02 00:31:12Z): Incorporate the changes shown in document 11-18/1366r2 < <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx> > having a tag [1606]
			5. Mark ready for Motion
		2. CID 1608 (GEN)
			1. Review comment
			2. Discussion on the change and future plans and the references to documents.
			3. Changing the “latest published versions” to include who is publishing…”
			4. Proposed resolution: REVISED (GEN: 2018-08-02 00:34:25Z) Please make changes as shown in document <https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx> having a tag [1608]
			5. Mark Ready for Motion
		3. CID 1621 (PHY)
			1. Review comment
			2. Proposed Resolution: REJECTED (PHY: 2018-08-02 00:34:08Z) There are no regulations to cite for 802.11 VHT operation between 5.925 GHz and 7.125 GHz at any transmit power above -41.3 dBm per MHz EIRP (FCC 47 CFR 15.250(d)(1)). We await any rulemaking before changing Annex D and other clauses.
			3. Mark Ready for Motion
		4. Thanks to Peter for his efforts.
	1. **Review Agenda** plan for tomorrow
		1. See 11-18/1351r5 of the agenda file.
	2. **Recessed at 5:38pm**
1. **IEEE 802.11md – REVmd - AdHoc Thursday August 2, 9:00am – 11:30am (AM1)**
	1. **Called to order** at 9:00am PT by the TG Chair, Dorothy STANLEY (HPE)
	2. **Attendance**:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Mark HAMILTON (Ruckus/ARRIS)
			4. Edward AU (Huawei)
			5. Joseph LEVY (Interdigital)
			6. Emily Qi (Intel)
			7. Robert STACEY (Intel)
		2. On Bridge at some time AM1
			1. Solomon TRAININ (Qualcomm)
			2. Mark RISON (Samsung)
			3. Menzo WENTINK (Qualcomm)
	3. **Review Patent Policy**
		1. No Issues
	4. **Review Agenda 11-18/1351r5**
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-05-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. **Thursday August 2,  9:00am – 11:30am (AM1)**
2. Solomon TRAININ – CID 1011
3. Guido HIERTZ – CID 1195 in 11-18-1260
4. Joseph LEVY CIDs – 11-18-1081 CID 1268 and 11-18-1370 CIDs 1265, 1266
5. GEN CIDs
6. CID 1066 0 Beacon Protection – Emily QI, 11-18/1364r0
	* 1. Change order to put Solomon First.
		2. New request for 11-18/1368r0 Jerome HENRY (Cisco)
			1. Add after GEN CIDs
		3. No objection to modified Agenda.
	1. **CID 1011 (MAC)** – Solomon TRAININ (Qualcomm)
		1. Review comment
		2. See P10479.41 (d1.2) for context.
		3. Draft Proposed resolution: Revised; In P1013L29 add sentence: Channel Load is measured and reported as defined in 11.10.9.3 (Channel load report).
		4. Discussion – detail reference in the frame format section seems out of place.
		5. Discussion on where the proper place to add the sentence.
		6. The standard is not consistent from one report type to another. Some report types have more references, others do not have a complete set, while others have none.
		7. Discussion on the value of forward reference or complete reference set in all the reports.
		8. Discussion on if a change is warranted.
		9. Proposed Resolution: Revised; Insert the following sentence at the end of the paragraph at P1048L29 (D1.2): Channel Load is measured and reported as defined in 11.10.9.3 (Channel load report).
		10. Mark Ready for Motion
		11. Thanks to Solomon for joining the call today, he had to leave.
	2. Guido is not present, so move his presentation to later.
		1. Discussion on when to change the topic for discussion
		2. Expect to have lots of discussion in September Interim as well.
		3. If he calls in, we may get an update from him.
	3. **Review doc 11-18-1081r0** Joseph LEVY
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1081-00-000m-proposed-resolution-for-cid-1268.docx>
		2. Review History and context of submission
		3. CID 1268 (MAC)
			1. Review Comment
			2. Previous Proposed Resolution : REVISED (MAC: 2018-06-22 14:38:41Z): Incorporate the proposed text changes in 11-18/1081r0 (https://mentor.ieee.org/802.11/dcn/18/11-18-1081-00-000m-proposed-resolution-for-cid-1268.docx). These changes resolve the comment in the direction suggested by the commenter.
			3. Discussion on the value of changing BI. Why not just define it in the acronym section?
			4. Discussion on the changes in R0 that need to be made.
				1. awake beacon interval (A-BI): In a DMG BSS or PBSS, a beacon interval of a power save mode wakeup schedule during which a station (STA) is expected to be in the awake state during several portions of the beacon interval. doze beacon interval (D-BI): In a DMG BSS or PBSS, a beacon interval of a power save mode wakeup schedule during which a station (STA) is expected to be in in the doze state for most of the portions of the beacon interval.
			5. Discussion on the problem of beacon interval not being the same in all cases. Making the change to All beacon interval references to mean time constantly. Make things consistent is a good goal.
			6. For consistency, BI is the Beacon Interval, and not spell out the “duration of” in the equations.
		4. An R1 will be posted, and we can look at it later this morning.
	4. **GEN CIDs** Jon ROSDAHL (Qualcomm)
		1. CID 1567 (GEN):
			1. Assign to Mark HAMILTON, for a submission.
			2. Agree with the direction, need the detailed changes.
		2. CID 1193 (GEN):
			1. Mark submission required.
			2. Assign to Mike MONTEMURRO.
		3. CID 1564 (GEN):
			1. Assign to Mark HAMILTON.
			2. Submission Required.
			3. Try to look at some TDLS primitives, as well, from a comment from last ballot that Mark RISON submitted.
			4. See also CID 1461.
		4. CID 1413 (GEN):
			1. This text was touched by CID 123. CID 123 removed the size designation. Not really relevant to the point of this comment.
			2. Mark Submission Required.
			3. Assign to Mark RISON.
		5. CID 1435 (GEN):
			1. This was discussed yesterday.
			2. Suggestion in 11-18/1306 is to remove most of the parameters like this.
			3. Assign to Mark Rison, to cover in 11-18/1306's changes.
		6. CID 1581 (GEN):
			1. Proposed Resolution: ACCEPTED.
			2. Mark Ready for Motion
		7. CID 1453 (GEN):
			1. This is in 11-18/1306.
			2. Assign to Mark Rison.
			3. Mark Submission Required.
		8. CID 1434 (GEN):
			1. Believe this was added in 802.11k, because some information was needed for Radio Measurement that is only known after the frame reception is complete.
			2. Assign to Mark Hamilton.
			3. Direction is to reject, with an explanation for what the 11k connection/requirement is.
			4. Suggestion for Mark that Brian HART might be a source of historical information on this.
		9. CID 1117 (GEN):
			1. See CID 1116.
			2. CID 1116 was discussed earlier this week. In that CID we removed the definition of non-TIM STA from clause 3. Still need to align the text on P1296 with the changes done for CID 1116.
			3. Assign to Robert STACEY.
			4. Look at the changes done for CID 1116, and determine what additional changes, if any, are needed for CID 1117.
			5. Also, the line number cited in the comment needs to be checked. It might be related to text at P1296L35 onward.
		10. CID 1096 (GEN)
			1. Transmitted BSSID is a Multiple-BSSID feature concept. This particular usage needs to be investigated. Either agree with the comment (remove "Transmitted BSSID") or fix the wording to relate to Multiple-BSSID terminology correctly.
			2. Same thing happens in the last paragraph of the next subclause.
			3. Assign to Abhishek PATIL.
		11. CID 1140 (GEN)
			1. Proposed Resolution: REJECTED (GEN: 2018-08-02 17:48:45Z) There is a definition and use of S1G NDP Announcement, as an example, at p1842.30 in d1.2, "VHT NDP Announcement frame” is replaced by “S1G NDP Announcement frame”
			2. Mark ready for Motion
		12. Quick review of other GEN CIDs:
		13. CID 1417 (GEN):
			1. This was left off yesterday, with the question to the group of whether we need these parameters in such primitives. This is on a tab for GEN, with similar/related concept.
			2. Assign to Mark Hamilton, to research and discuss with Mark Rison.
			3. This CID is touching the SCAN request. The others are on the JOIN request. Those might be different situations.
			4. Assign all the CIDs on the Capabilities tab to Mark Hamilton, to keep them together.
		14. CID 1482 (GEN):
			1. Assign to Mark RISON
		15. CID 1438 (GEN):
			1. Assign to Menzo WENTINK
		16. CID 1125 (GEN):
			1. Assign to Alfred ASTERJADHI
	5. **Review doc 11-18-1081r1** Joseph LEVY
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1081-01-000m-proposed-resolution-for-cid-1268.docx>
		2. Abstract: This document provides a proposed resolution for CID 1268 from 802.11 letter ballot 232.

r1 – reworked definitions and removed the phrase “the time duration of”.

* + 1. CID 1268 (MAC):
			1. Review 11-18/1081r1, which is updated with the new definitions discussed earlier this morning and removing "time duration of" a beacon interval, also as discussed earlier this morning.
			2. Proposed Resolution: REVISED (MAC: 2018-06-22 14:38:41Z): Incorporate the proposed text changes in 11-18/1081r1 <<https://mentor.ieee.org/802.11/dcn/18/11-18-1081-01-000m-proposed-resolution-for-cid-1268.docx>>. These changes resolve the comment in the direction suggested by the commenter.
		2. Ready for motion.
	1. **Review doc 11-18-1370r0** Joseph LEVY
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1370-00-000m-proposed-resolution-for-cid-1265.docx>
		2. CID 1265 and 1266 (GEN):
			1. Reviewed document 11-18/1370r0.
			2. In 4.3.13, the reference (at the end) to 11.3, should instead be a reference for mesh features, not for mesh state transitions.
			3. Discussion on if a reference is even needed. Maybe just remove the reference, as other sentences don't have one.
			4. Suggestion to delete the sentence at the top of page 4. Not all agreed, but a discussion on the value was had. There was no strong opposition to removing the sentence (paragraph) but for now it is a possibility for the future but was not marked to be deleted during the discussion.
			5. Removing Mandatory and Optional designation should be in the PICs and where the feature is defined should indicate the designation, and it should not be in Clause 4.
				1. Clause 4 is non-normative description of the standard.
				2. The designation could be declarative, and the “shall” is found elsewhere. The use of “may” is not allowed, so change to “might”.
				3. Discussion to not remove the “Mandatory” or “Optional”
			6. If we keep the Mandatory or Optional, then the majority of the changes would not be necessary.
			7. Review of the proposed addition of 4.3.15 description
				1. Support for keeping was the consensus but wanted to have validation of the numbers in the description.
			8. Suggest making an R1.
				1. Retain the Mandatory and Optional.
				2. Send a message to the .11 reflector and point people to the new description and look for feedback.
			9. Reviewed the remaining portion of the document.
			10. No other major issues.
	2. **Recess at 11:35am PT**
1. **IEEE 802.11md – REVmd - AdHoc Thursday August 2, 1pm – 3pm (PM1)**
	1. Called to order at 9:00am PT by the TG Chair, Dorothy STANLEY (HPE)
	2. Attendance:
		1. In person:
			1. Dorothy STANLEY (HPE)
			2. Jon ROSDAHL (Qualcomm)
			3. Mark HAMILTON (Ruckus/ARRIS)
			4. Edward AU (Huawei)
			5. Joseph LEVY (Interdigital)
			6. Emily Qi (Intel)
			7. Robert STACEY (Intel)
			8. Mark Cordiero (Intel)
		2. On Bridge
			1. Mark RISON (Samsung)
	3. **Review Patent Policy**
		1. No issues noted.
	4. **Review Agenda 11-18/1351r5**
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1351-05-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>
		2. Thursday August 2, 1pm – 3pm (PM1)i. 11-18-1306 – Mark RISON ii. Carlos CORDEIRO 11-18-1324 Address issues with 11-18-1178iii. MAC CIDs - Mark HAMILTON – CIDs 1100, 1104, 1102; 11-18-1369iv. Robert STACEY – 11-18-704; CID 1443v. CID 1066 Beacon Protection – Emily QI, 11-18/1364r0vi. Jerome HENRY 11-18-1368r0 vii. Guido HIERTZ – CID 1195 in 11-18-1260viii. Plans for September meeting
		3. No Objection to final block plan.
	5. **Review Document 11-18/1306r1** Mark RISON (Samsung)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1306-01-000m-resolutions-for-some-comments-on-11md-d1-0-lb232.docx>
		2. CID 1452 (MAC)
			1. (Updates to 11-18/1306. Will be r2, not posted yet.)
			2. Review change to fragments to MPDU changes
			3. Proposed Resolution: CID 1452 (MAC): REVISED (MAC: 2018-08-02 20:10:03Z): Incorporate the changes as shown in 11-18/1306r2, <https://mentor.ieee.org/802.11/dcn/18/11-18-1306-02-000m-resolutions-for-some-comments-on-11md-d1-0-lb232.docx for CID 1452. This corrects wording in the places where a fragment is assumed to also include the entire MSDU.
			4. Mark Ready for Motion
		3. CID 1465 (PHY)
			1. Review the comment
			2. Review the proposed changes
			3. The updated R2 will be posted and on one of the upcoming telecons we will review for final approval.
			4. Discussion on where the MSDU maps into a PPDU and if the RA/SA/TA are valid in the respective cases.
		4. R2 will be posted and an announcement will be sent when done.
	6. **Review doc 11-18-1324r2** - Carlos CORDEIRO (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1324-02-000m-fixes-to-multi-band-operations.docx>
		2. Abstract: Among other things, this contribution fixes the OCT figure and primitives, which were correct in 802.11ad-2012, but were incorrectly modified in 11mc. There are no CIDs related to this contribution. All the changes are related to 11md D1.2.
		3. This document Addresses issues with 11-18-1178
		4. Missing parameters in the MLME-SCAN.confirm.
		5. Review the missing parameters being restored.
		6. There may be other entries missing
		7. These changes may lead to an update maintenance issue. If we had a generic way to define the Tunnelled RXVECTOR, then it would be helpful.
		8. Discussion on the use of RXVECTOR in the MLME-OCTunnel.indication context.
		9. Describes the need to add a “confirm” primitive and gives the new primitive details.
		10. When we are fixing the “Scan” we should fix the other primitives.
			1. Scan is the main one.
			2. The others are thought to be correct already.
		11. Discussion on the need for passing the parameters.
		12. Request and Confirm for just local features would not make sense to “tunnel”.
		13. Change “identify” to “used to deliver to”.
		14. Some more updates will need to be made to form an R3 and then an email will be sent to the reflector to identify when the update is available.
		15. MAC Service Tuple may not have the destination address in the Received Management frame.
		16. Discussion on who is scanning in the tunnels.
		17. Thanks Carlos
	7. **Review doc 11-18-1369r1** MAC CIDs 1100, 1104, 1102- Mark HAMILTON (Ruckus/ARRIS).
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1369-01-000m-alternative-comment-resolution-for-extended-element-id.docx>
		2. CID 1100, 1102 and 1104 (MAC)
			1. Added 1102 and 1104 to this version of the document.
			2. Removed CID 1103, 1107 from R1.
			3. Discussed the history of the document changes.
			4. Review the proposed changes in the current revision.
			5. Remove the “extended Element IDs” as this is not defined.
			6. Discussion on if “Extended Element IDs” are useful or not.
			(with lower case “e”).
			7. Discuss the fact that we seem to be moving in a different direction again. Need to be consistent and allow for internal agreement on at least these CIDs. This will remove the use of “extended Element IDs”.
			8. Mark RISON proposed new paragraph to go below Figure 9-136:

“If an Element ID value has an entry in Table 9-87 of "Used for elements that contain an Element ID Extension field", then that Element ID value is used only for elements where the Element ID Extension field is present, otherwise the Element ID Extension field is not present.”

* + - 1. We want to preclude that Element ID Extension field are sometimes there or not.
			2. Discussion on if this is the right direction.
			3. Return to the final set of proposed changes.
			4. Discussion on what to put in the extension ID field: “X”, blank, “any”.
			5. Discussion on the use of “Reserved” for Element ID 255 with unused Element ID Extensions.
			6. Discussion on where to put in the “Used for elements that contain an Element ID Extension field” entry.
			7. Discussion on if in one table or multiple, do we need the row at all as other combinations are already defined.
			8. Trying to find a compromise solution.
			9. Mark to try removing the “any” row and create a different table and text to align with the discussion.
			10. Schedule to continue the discussion on the next teleconference.
	1. **Review doc 11-18/704r0** – CID 1443 - Robert STACEY
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0704-00-000m-lb232-cr-for-authentication-frame.docx>
		2. CID 1443 (MAC)
			1. Review Comment
			2. The addition of Fields and elements out of order.
			3. Proposed Resolution: REJECTED (MAC: 2018-08-02 22:02:25Z): –Authentication frames other than those used with the FILS Shared Key authentication with PFS algorithm do not include included fields with order 4-9 together with elements with order 10-15. The reordering has not created a backward compatibility issue. Reverting to the original order would create a backward compatibility issue for STAs that support the FILS Shared Key authentication with PFS algorithm.
			4. Mark ready for Motion
	2. **Review doc 11-18/1364r0** – Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1364-00-000m-proposed-resolution-for-cid-1066.doc>
		2. CID 1066 (GEN)
			1. Review proposed changes.
			2. Robust Management frames that are not QMF or robust Beacon frames should have a separate counter and a separate counter is used for QMF and robust Beacon Frames.
			3. Change to use “the frame” in “c)”
			4. Suggest splitting out the GQMF from Beacon Frame restrictions.
			5. Need to find a new name for “report bad beacon”.
			6. Two different type of “bad beacons” – 1. Fails the security check and 2 fails the quality check.
			7. Align the MIB definition with the new rules.
			8. WNM notification type will need new name.
			9. The last bit in the capabilities field is being taken in the RSN Capabilities field. We need to define the extension bits.
				1. RSNE inclusion of multiple security parts.
				2. Is this the last bit (bit 15) really the last bit, and do we need to add extension information now or let the next bit user add a definition?
				3. Need to determine if managed by ANA or not.
				4. It is also in a FILS discovery frame.
				5. RSN Capabilities – is ANA
				6. Bit 9 was taken by Peer Key Enabled and we could look at being able to reuse it.
		3. A new Revision will be made and brought back.
	3. Adjourned at 3:47pm ET

**References:**

**Tuesday July 31 9:00am – 11:30am (AM1):**

<https://mentor.ieee.org/802-ec/dcn/16/ec-16-0180-05-00EC-ieee-802-participation-slide.pptx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-02-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1350-00-000m-resolution-for-cids-1287-1288-1300.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1296-01-000m-resolutions-to-cid-1298.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0702-01-000m-lb232-cr-on-elements.docx>

**Tuesday July 31 3:30pm – 5:30pm (PM2)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-0658-07-000m-lb232-proposed-resolutions-for-editor-ad-hoc.doc>

**Wednesday August 1 9:00am – 11:30am (AM1)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-03-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1371-00-000m-cid-1240-proposed-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1371-01-000m-cid-1240-proposed-resolution.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0669-03-000m-revmd-mac-comments-assigned-to-hamilton.docx>

**Wednesday August 1, 1pm – 3pm (PM1)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-04-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1306-01-000m-resolutions-for-some-comments-on-11md-d1-0-lb232.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0873-01-000m-igtk-switch-announcement.ppt>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0874-01-000m-proposed-resolution-for-cid1067.doc>

**Wednesday August 1, 3:30pm – 5:30pm (PM2)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-04-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0865-03-000m-beacon-protection.ppt>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1364-00-000m-proposed-resolution-for-cid-1066.doc>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0702-01-000m-lb232-cr-on-elements.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1369-00-000m-alternative-comment-resolution-for-extended-element-id.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1366-01-000m-resolutions-to-regulatory-comments.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1366-02-000m-resolutions-to-regulatory-comments.docx>

**Thursday August 2, 9:00am – 11:30am (AM1)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-05-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1081-00-000m-proposed-resolution-for-cid-1268.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1081-01-000m-proposed-resolution-for-cid-1268.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1370-00-000m-proposed-resolution-for-cid-1265.docx>

**Thursday August 2, 1pm – 3pm (PM1)**

<https://mentor.ieee.org/802.11/dcn/18/11-18-1351-05-000m-tgmd-2018-july-august-teleconference-and-ad-hoc-agenda.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1306-01-000m-resolutions-for-some-comments-on-11md-d1-0-lb232.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1324-02-000m-fixes-to-multi-band-operations.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1369-01-000m-alternative-comment-resolution-for-extended-element-id.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-0704-00-000m-lb232-cr-for-authentication-frame.docx>

<https://mentor.ieee.org/802.11/dcn/18/11-18-1364-00-000m-proposed-resolution-for-cid-1066.doc>

**Action Items:**

* + - 1. ACTION ITEM #1: Mark HAMILTON to prepare resolution for marking PSMP as obsolete. – Need text for the PICs as well as 10.30 and its first real use.
		1. ACTION ITEM #2: Mark HAMILTON by Wednesday PM2 to bring proposed text for CID 1100, 1102 and 1103. Robert bring proposed resolution to CID 1105, 1107 on Wednesday PM2.
			- 1. ACTION ITEM #3: Stephen MCCAAN – Follow-up with 802.21 to ensure that the query format for value 1 is defined.
			1. ACTION ITEM #4: Mark HAMILTON to check with security group for potential issue with the point of discarding frame.
			2. ACTION ITEM #5: Mark RISON to send an email about CID 1480 with the proposed resolution so that the larger PHY audience can review.
			3. ACTION ITEM #6: Mark RISON to send this comment and proposed changes to the 802.11 reflector for review and discussion.
			4. ACTION ITEM #7: Mark RISON to send the info for CID 1453 and 1435 (GEN) and proposed resolution to the Reflector for broader review.