IEEE P802.11
Wireless LANs

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| Telecon Minutes for REVme - July Electronic Plenary |
| Date: 2021-07-14 |
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Abstract

Minutes for TGme (REVme) for the 2021 802 Electronic Plenary:

R0: July 13 (Tuesday) and July 14 (Wednesday) Telecons.

1. **TGme (REVme) Telecon Tuesday July 13th, 2021 at 16-18:00 ET**
	1. Called to order 4:05pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
	2. Reminder that this call is considered a part of the 2021 July IEEE 802 Electronic Plenary, which requires a registration fee. The link to the registration page was given.
	3. Review Patent Policy and Copyright policy and Participation Policies.
		1. No issues were noted.
	4. Review Agenda 11-21/937r1:
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0937-01-000m-revme-agenda-july-2021-session.pptx>

Tuesday Jul 13, 4pm ET

1. Chair’s Welcome, Policy & patent reminder
2. Approve agenda
3. Minutes Approval
4. Editor Report
5. Comment Resolution
6. 11-21/730 – Edward AU – Editor 2 CIDs
7. 11-21/769 – Emily QI – Editor CIDs
8. 11-21/981 – Jerome HENRY (Cisco) – ANQP CIDs
9. 11-21/695 – Michael MONTEMURRO (Huawei) – 802.1D
10. Recess
	* 1. No objection to approving the Agenda.
	1. **Editor Report 11-21/687r2** – Emily QI – (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0687-02-000m-802-11revme-editor-s-report.pptx>
		2. Reference Documents available:
			1. Draft: P802.11REVme D 0.1 (members’ area)
				1. [Draft P802.11REVme\_D0.1.pdf](https://www.ieee802.org/11/private/Draft_Standards/11me/Draft%20P802.11REVme_D0.1.pdf)
				2. [Draft P802.11REVme\_D0.1 Redline Compared to D0.0.pdf](https://www.ieee802.org/11/private/Draft_Standards/11me/Draft%20P802.11REVme_D0.1%20Redline%20Compared%20to%20D0.0.pdf)
			2. D0.1 word docs and figures are also available (member’s area) for preparing submissions.
				1. [REVme\_D0.1.rtf.zip](https://www.ieee802.org/11/private/Draft_Standards/11me/REVme_D0.1.rtf.zip)
				2. [REVme-D0.1-Figure Source.zip](https://www.ieee802.org/11/private/Draft_Standards/11me/Figure%20Source%20D0.1.zip)
			3. CC35 Comments
				1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0684-04-000m-revme-wg-cc35-comments.xlsx>
		3. Amendment Roll-in Plan
			1. 802.11-2020 – Done, D0.0
			2. 802.11ax-2021 – Done, D0.1
			3. 802.11ay-2021 – by September 2021
			4. 802.11ba-2021 – by November 2021
			5. Expect to have 4 other amendments be rolled in if completed by end of 2022: TGaz, TGbb, TGbc, TGbd
		4. Comment Status:
			1. 
			2. Comment assignments reviewed.
			3. Question for consideration of going to letter ballot sooner than later to get comments on TGax included in a Letter ballot. Will consider on Thursday this week.
	2. **Review doc 11-21/073r4** – Edward AU (Huawei)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0730-04-000m-proposed-resolution-for-revme-cc35-comments.docx>
		2. CID 476 (ED2)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No objection – Mark Ready for Motion
		3. CID 478 (ED2)
			1. Review Comment
			2. Proposed Resolution: Accept

Note to the Editors at the following locations in D0.0:

2535.3, 2535.33, 2535.35, 2540.2, 2540.18, 2540.20, 2543.36, 2543.44, 2623.31, 2625.3, 2625.12, 2625.48, 2625.52, 2626.22, 2626.26, 2654.19, 2654.26, 2765.18, 2765.23.

* + - 1. No Objection – Mark Ready for Motion
		1. CID 254 (ED2)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No Objection – Mark Ready for Motion
		2. CID 477 (ED2)
			1. Review Comment
			2. Discuss possible global replacement from “peer entity” in “peer STA” in clause 6.
			3. STA is very broad, so changes to “peer entity” need to be reviewed on a case by case basis – there are 85 instances.
			4. There 1790 instances of “entity”, so not sure this change should be made.
			5. A definition of entity could be created as well as a possible resolution.
			6. Assign CID 477 to Mark RISON.
			7. A more detailed resolution will be required.
		3. CID 450 (ED2)
			1. Review Comment
			2. There are 8 instances of “broadcast destination address” in D0.0 at the following locations: 2132.21, 2132.28, 2134.23, 2134.36, 2134.43, 2134.50, 2144.63, 2272.28.
			3. Discussion on if the distinction was due to the RA vs BSSID.
			4. Broadcast AID vs Broadcast Destination AID – another use of destination that may be needed to be review.
				1. Separate contribution on this topic – stay focused on the CID.
			5. We could add more text to be explicitly state that the RA is what is being pointed to.
			6. There may need to have this explicit “destination” to help in the Active scanning sections.
			7. Proposed Resolution: Accept
			8. More review is needed and look for possible resolution.
			9. Also find locations in D0.1 (11ax rolled in), and bring back with complete list, for additional review.
			10. Plan to bring back on a future telecon.
	1. **Review doc 11-21-769r0** Emily QI (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0769-04-000m-proposed-resolution-for-revme-cc35-editor1-ad-hoc-comments.docx>
		2. CID 571 (ED1)
			1. Review Comment
			2. Draft Resolution: Revised. Change all instances in D0.1 (except the instances on page 2567 &2568) of "Advertisement Server" to "advertisement server". Total instances are 41.

On Page 2567 & 2568 of D0.1, change "Advertisement Server" to “"Advertisement server". 3 instances in figure 11-40, figure 11-41 and figure 11-42.

* + - 1. Discuss on other instances that need to be added.
				1. Proposed Resolution: Revised. Change all instances in D0.1 (except the instances on page 2567 &2568) of "Advertisement Server" to "advertisement server". Total instances are 41.

On Page 2567 & 2568 of D0.1, change "Advertisement Server" to “"Advertisement server". 3 instances in figure 11-40, figure 11-41 and figure 11-42.

* + - * 1. Note that in this document the page numbers are for D0.1 of the draft.
			1. Proposed Resolution: Revised. Change all instances in D0.1 (except the instances on page 2567 &2568 &2569) of "Advertisement Server" to "advertisement server". Total instances are 41.

On Page 2567 & 2568 $2569 of D0.1, change "Advertisement Server" to “"Advertisement server". 3 instances in figure 11-40, figure 11-41 figure 11-42, 11-43, and Figure11-44. In those 4 figures, also change "Advertisement Server" to "advertisement server" in message flow boxes

* + - 1. No objection Mark ready for motion
		1. CID 339 (ED1)
			1. Review Comment
			2. Proposed Resolution: Accept; Note to Editor:

Add a comma at 1085.54, 1085.65, 1086.16, 1086.21, 1086.22, 1086.23, 1086.35, 1086.36, 1086.37.

Remove the comma at 1086.38.

* + - 1. No objection Mark ready for motion
		1. CID 557 (ED1)
			1. Review Comment
			2. Review the Style Guide
			3. Deletion of the offending sentence should be removed for the Quiet Element
			4. Other Elements that may need similar changes applied:

9.4.2.13 Power Constraint element

9.4.2.14 Power Capability element

9.4.2.15 TPC Request element

9.4.2.16 TPC Report element

9.4.2.17 Supported Channels element

9.4.2.18 Channel Switch Announcement element

9.4.2.23 IBSS DFS element

* + - 1. These and Other potential places can be located in later reviews.
			2. Agree to direction, to agree with Editorial Style Guide.
			3. Proposed Resolution: Revised: Change cited para (at 1084.18) to: “The use of Quiet elements is described in 11.8.3 (Quieting channels for testing).”.
			4. No objection – Mark Ready for Motion
		1. CID 475 (ED1)
			1. Review comment
			2. Review Editorial Style Guide.
			3. Proposed Resolution: REVISED

at 206.14, change "Common Advertisement Group" to "common advertisement group”

at 206.28, change "CTR with CBC-MAC Protocol" to "CTR with CBC-MAC protocol".

at 208.57, change "Galois/Counter Mode Protocol" to "Galois/Counter Mode protocol".

* + - 1. Discussion on keeping Company ID upper case.
			2. There is concern with the various ways that capitalization is done for Galois/Counter Mode protocol.
			3. How about other occurrences of "Counter mode with cipher-block chaining message authentication code " with different upper/lower case?
			4. Agreed to just cover clause 3.4 and these, for now
			5. Proposed Resolution: CID 475 (ED1): Revised. at 206.14, change "Common Advertisement Group" to "common advertisement group".

at 206.28, change "CTR with CBC-MAC Protocol" to "CTR with CBC-MAC protocol".

at 208.56, change "Galois/counter mode” to "Galois/Counter Mode”

at 208.57, change "Galois/Counter Mode Protocol" to "Galois/Counter Mode protocol".

* + - 1. No Objection – Mark Ready for Motion
	1. **Review doc 11-21/981r2** – Jerome HENRY (Cisco)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0981-02-000m-anqp-augmentation-for-federations.pptx>
		2. Abstract: This submission proposes two new elements for ANQP that would be of use for WFA and WBA use cases.
		3. CID 93 and 94 (MAC)
			1. Review Submission
			2. Identify the potential to reuse existing tables and just add specific items that were not known in the past.
			3. Question on if you could not use SMS would this cause problems with verification. The Validation Methods give order of what is allowed to be used for a particular exchange.
			4. Discussion of how the age should be described and used.
			5. The name of the fields and subfields and the names in the text need to be checked for consistency.
			6. Note that Name of Fields they need to be capitalized for each word.
			7. Other Editorial issues were noted and expect to be fixed prior to acceptance.
			8. Suggestion to have a word doc with specific editing instructions and the clean-up of the Text will be done.
			9. CIDs 93 and 94 (MAC): AdHoc notes: MAC: 2021-07-13 21:34:26Z - Generally agreed, some updates suggested. Will bring back in final form.
		4. CID 95 (MAC)
			1. Review comment
			2. Review proposed changes
			3. Review the field names and proposal was to include unique field names and be unambiguous in the naming.
			4. Add to AdHocNotes: CID 95 (MAC): MAC: 2021-07-13 21:38:01Z - Generally agreed. Fix details on Settlement Indicator, and SLA Details. Also, need unique subfield names. Will bring back in final form.
	2. **Review doc 11-21/695r6** – Michael MONTEMURRO (Huawei)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0695-06-000m-revme-cc35-802-1d-comments.xlsx>
		2. CID 70 – 77
			1. Discussion on if these CIDs were ready for trivial fix and ready for acceptance.
			2. Note that CID 77 Changes 802.1D to 802.1AC.
			3. Proposed Resolution will be Accept
		3. CID 80 – pulled from motion before.
			1. Ok to leave marked Ready for Motion (GEN June Motion Excepts tab)
		4. CID 62 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No Objection – Mark Ready for Motion
		5. CID 63 (MAC)
			1. Review Comment
			2. Proposed Resolution: Revised At 1122.55, delete "When matching an IEEE 802.1D-2004 frame header, this subfield is ignored."
			3. No Objection – Mark Ready for Motion
		6. CID 64 (MAC)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. No Objection – Mark Ready for Motion
		7. CID 65 (MAC)
			1. Review Comment
			2. Proposed Resolution: Revised. At 1122.58, delete "When matching an IEEE 802.1D-2004 frame header, this subfield is ignored."
			3. No Objection – Mark Ready for Motion
		8. CID 66 and 67 (MAC)
			1. Review Comment
			2. Use the 802.11 UP for mapping changes.
			3. See page 1693 line 29 for context.
			4. Proposed Resolution: Revised. Change "UP (Same as IEEE 802.1D user priority)" to "UP"
			5. No Objection – Mark Ready for Motion
			6. Discussion on the changes we are making. How is 802.1Q map to the old values in 802.1D and as the later is withdrawn, we need to be consistent with 802.1AC. This describes how these values relate.
			7. We need to make some more changes in 802.1AC, but not necessary in 802.11.
			8. The use of UP is usable for 802.11.
	3. Recess at 6pm
1. **TGme (REVme) Telecon Wednesday July 14th, 2021 at 16-18:00 ET**
	1. Called to order 4:02pm ET by the TG Chair, Michael MONTEMURRO (Huawei).
	2. Reminder that this call is considered a part of the 2021 July IEEE 802 Electronic Plenary, which requires a registration fee. The link to the registration page was given.
	3. Reminder for Attendance given.
	4. Review Patent Policy and Copyright policy and Participation Policies.
		1. No issues were noted.
	5. Review Agenda – 11-21/937r2:
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0937-02-000m-revme-agenda-july-2021-session.pptx>
		2. Wednesday Jul 14, 4pm ET
2. Comment Resolution (Security CIDs)
	1. 11-18/691 – Dan HARKINS – JTC1 Comment on 4-way
	2. 11-21/809 – Nehru BHANDARU (Broadcom)
	3. 11-21/970 – Po-Kai HUANG (Intel)
	4. 11-21/762 – Michael MONTEMURRO (Huawei)– security CIDs
	5. 11-21/772 – Michael MONTEMURRO (Huawei)
3. Recess
	* 1. Add doc 11-21/816r1 – On A-MSDU addressing - Mark RISON
		2. No other agenda changes – approved without objection.
	1. **Review doc 11-21/1039r2** – China National Body CIBs - Dan HARKINS
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-1039-02-000m-resolution-of-cnb-fdis-comments.docx>
		2. Review Submission
		3. CN2 -
			1. Review Comment
			2. Discussion of history of comment.
			3. Implementation Flaws as opposed to Standard Flaws.
			4. Proposed Resolution: Reject. The proposed change would not address any problem. The issues in the paper have been studied and determined to be implementation issues and not design flaws in the standard. There is a parallel effort in TGme to provide implementation guidance concerning fragmenting A-MSDUs, not forwarding EAPoL frames, not combining encrypted and unencrypted fragments or fragments encrypted with different keys, requiring consecutive packet numbers, etc. This effort will ensure that the fragmentation issues associated with implementations discussed in the referenced paper are completely addressed.
			5. No objection – Mark ready for motion
		4. CN8 –
			1. Review Comment
			2. This is a repeat comment that we acknowledged and said we would fix, but we apparently did not make a change.
			3. Draft Resolution: Revised, this issue is acknowledged and will be addressed by the IEEE 802.11 Working Group through the normal maintenance process in IEEE 802.11. It is noted that there are no security issues associated with this problem.
			4. We should provide a different resolution with more specificity
			5. The Resolution can be edited with more details for the change.
			6. A possible contribution to be considered 11-21/1128 : <https://mentor.ieee.org/802.11/dcn/21/11-21-1128-000m-on-frattacks-and-related-matters.docx>
			7. We should acknowledge that we are actively working on this issue during the TGme process.
			8. Note that the CNB has acknowledged that CN8 is not a security issue.
			9. Proposed Resolution: Revised, this issue has been accepted as a work item of the TGme maintenance group and is being addressed by the IEEE 802.11 Working Group through the normal maintenance process in IEEE 802.11. It is agreed that there are no security concerns associated with this issue.
			10. Discussion on the potential issue and what needs to be addressed.
			11. No objection – Mark ready for motion
			12. This will be sent to JTC1 for further processing and response as appropriate.
	2. **Review doc 11-21/809** – Nehru BHANDARU (Broadcom)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-04-000m-cc35-crs-a.docx>
		2. CIDs 163, 215, 199, 360, 171, 37, 486, 217, 357, 384. (All are SEC)
		3. CID 163 (SEC)
			1. Review comment
			2. Review proposed changes
			3. Question on if TKIP Is deprecated, it should not have a change.
			4. The re-ordering function was never supported by the standard for TKIP.
			5. The group can make a change, but not normally changed deprecated clauses.
			6. The deletion is not really a fix but is removing something that was left over from a previous change.
			7. TKIP in practice is supported by new devices for backward compatibility. Maybe close to being able to remove WEP.
			8. WEP is obsolete. The WEP algorithm is unsuitable for the purposes of this standard.
			9. The use of TKIP is deprecated. The TKIP algorithm is unsuitable for the purposes of this standard.
			10. This is just deleting some text, so would be a good update to make.
			11. Proposed Resolution: Revised; Agree with the commentor. TKIP does not support MPDU aggregation.

TGm editor: Please make changes as described in 11-21/0809r4: <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-04-000m-cc35-crs-a.docx>

* + - 1. No objection – Mark Ready for Motion
		1. CID 215 (SEC)
			1. Review Comment
			2. Already marked ready for motion (see Security Motion B in Security AdHoc file).
		2. CID 199 (SEC)
			1. Review Comment
			2. Discussion on Table 12-6t entry changes. “May exchange data with the STA over the direct link”
			3. Similar to CID 587 which was for IBSS that is similar.
			4. Other tables were also reconstructed in regard to other CIDs in 12-5.
			5. Change “should” to “shall” in row 5.
			6. Any use of “Peer STA” should be “TDLS peer STA” in this table.
			7. Add TDLS direct link in all cases as well.
			8. More work is needed – work with Mark RISON and Jouni using the reflector for more discussion.
	1. **Review Doc 11-21/970r3** Po-Kai Huang (Intel)
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0970-03-000m-akm-for-sha-384.docx>
		2. Abstract: This document proposes two new AKMs to allow mixed key length for individual addressed data and group addressed data and enable SHA-384 under “for FT authentication negotiated over IEEE Std 802.1X” and “Authentication negotiated over IEEE Std 802.1X” scenarios without the need to comply with CNSA suite requirement like AKM 12 and AKM 13.
		3. Review submission.
		4. Rational for adding new AKM given.
		5. Bug fixes for AKM 19 and AKM 20 are proposed as well in this submission.
		6. Review the changes proposed.
		7. Discussion on the table changes.
		8. Discussion on the limitation that may be backward, it lists AKM-1 and AKM-2 limiting to GCMP-256 and CCMP-256, but maybe it would be better to say use AKM-1/AKM-2 in other than GCMP-256 and CCMP-256. More discussion may be needed.
		9. A request to those that may have implemented AKM-19 and AKM-20 to ensure we don’t orphan them with this fix.
		10. If comment from Mike MONTEMURRO is not needed, he would be ok to have it removed in future revision.
		11. Discussion on the new AKM and AKM-13 differences.
		12. A Note at the bottom of the table to help point out the differences may be helpful.
		13. Editorial changes for some spurious spaces, upper case Length and on page 7 delete the i.e. phrase should be possibly removed.
		14. How AKM-19 and AKM-20 are used in the 1st table may be reasonable for the direction to make the 2nd table values as noted in the submission.
		15. Agree that we need more discussion, but they do need to be added in the 2nd table.
		16. Note that AKM-19 and AKM-20 were added during TGmd.
		17. Suggest having a separate submission for the new and for the bug fixes.
		18. These AKM additions are to allow for a better migration rather than a hard cutover like AKM-13.
		19. The new AKMs seem to have support.
		20. The old AKMs seem to have logically good values being suggested.
		21. Support for removing the constraint that is being proposed to be removed.
		22. ACTION ITEM #2: send to reflector for review and gather input on the proposed AKM changes.
	2. **Review doc 11-21/816r1** – On A-MSDU addressing - Mark RISON
		1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0816-01-000m-on-a-msdu-addressing.docx>
		2. Abstract: This submission discusses the addresses present in the context of A-MSDUs, and constraints thereon.
		3. Review submission.
		4. Request for feedback on submission.
		5. Need more discussion. Will post to the reflectors (TGM and WG) for more discussion.
		6. Use of Mesh BSS = 11s?
	3. The documents we did not get to today will be rescheduled for later.
		1. Questions to be posted to the TGm reflector for more comment.
			1. 11-21/762 – MONTEMURRO – security CIDs
			2. 11-21/772 – MONTEMURRO
	4. Recess 6:00pm ET.

**References:**

**July 13th**

1. <https://mentor.ieee.org/802.11/dcn/21/11-21-0937-01-000m-revme-agenda-july-2021-session.pptx>
2. <https://mentor.ieee.org/802.11/dcn/21/11-21-0687-02-000m-802-11revme-editor-s-report.pptx>
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4. <https://mentor.ieee.org/802.11/dcn/21/11-21-0769-04-000m-proposed-resolution-for-revme-cc35-editor1-ad-hoc-comments.docx>
5. <https://mentor.ieee.org/802.11/dcn/21/11-21-0981-02-000m-anqp-augmentation-for-federations.pptx>
6. <https://mentor.ieee.org/802.11/dcn/21/11-21-0695-06-000m-revme-cc35-802-1d-comments.xlsx>

**July 14th**

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2. <https://mentor.ieee.org/802.11/dcn/21/11-21-1039-02-000m-resolution-of-cnb-fdis-comments.docx>
3. <https://mentor.ieee.org/802.11/dcn/21/11-21-1128-000m-on-frattacks-and-related-matters.docx>
4. <https://mentor.ieee.org/802.11/dcn/21/11-21-0809-04-000m-cc35-crs-a.docx>
5. <https://mentor.ieee.org/802.11/dcn/21/11-21-0970-03-000m-akm-for-sha-384.docx>
6. <https://mentor.ieee.org/802.11/dcn/21/11-21-0816-01-000m-on-a-msdu-addressing.docx>