IEEE P802.11
Wireless LANs

|  |
| --- |
| TG REMmc Telecon Minutes Aug-Sept 2014 |
| Date: 2014-08-29 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jon ROSDAHL | CSR Technologies Inc | 10871 N 5750 W Highland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |
| Dorothy STANLEY | Aruba Networks | 1322 Crossman Ave, Sunnyvale, CA 94089 | +1 630-363-1389 | dstanely@arubanetworks.com |

Abstract

802.11 REVmc Task Group Telcon minutes for Aug 1, 2014 to Sept 5th. Assignment of comment resolution topics to the scheduled teleconferences:

R0: August 1:

1. CIDs 3173, 3174, 3175 in 11-14-902-r3 (remaining Fei TONG CID resolutions)
2. Mike MONTEMURRO  - 11-14-0923
3. 11-14-780, remaining trivial technical
4. 11-14-781 – MDR topics – Adrian STEPHENS

R1: August 8th

1. 11-14- 0915, 0916 Security CIDs - Dan HARKINS
2. 11-14-781 – MDR topics

R2: August 15th

1. Mark HAMILTON CIDs - resolutions available
2. Mark HAMILTON CIDs - need discussion

R3: August 22

1. Mark HAMILTON: CIDs 3485, 3510, 3514
2. Regulatory CIDs - 11-14-0955 - Peter ECCLESINE

R4: August 29

1. Regulatory CIDs - 11-14-0955 - Peter ECCLESINE: 3078, 3077, 3054, 3053
2. Mike MONTEMURRO  - 11-14-0923 (continued from August 1)

September 5

1. Further MDR input required from TGmc
2. Assigned CIDs - Dorothy STANLEY 11-14-1041
3. VHT CIDs - Edward AU
4. Additional available CIDs

Note that teleconferences are subject to IEEE policies and procedures see:

|  |  |  |
| --- | --- | --- |
|   [IEEE Patent Policy](http://standards.ieee.org/board/pat/pat-slideset.ppt)  |    [Anti-Trust FAQ](http://standards.ieee.org/resources/antitrust-guidelines.pdf) |      [802 WG P&P](http://grouper.ieee.org/groups/802/PNP/approved/IEEE_802_WG_PandP_v15.pdf) |
|   [Patent FAQ](http://standards.ieee.org/board/pat/faq.pdf)  |     [Ethics](http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf) |       [IEEE 802.11 WG OM](https://mentor.ieee.org/802.11/dcn/13/11-13-0001-03-0000-802-11-operations-manual.docx) |
|    [Letter of Assurance Form](http://standards.ieee.org/board/pat/loa.pdf) |     [802 LMSC P&P](http://standards.ieee.org/board/aud/LMSC.pdf) |  |
|    [Affiliation FAQ](http://standards.ieee.org/faqs/affiliationFAQ.html)  |      [802 LMSC OM](http://grouper.ieee.org/groups/802/PNP/approved/IEEE_802_OM_v13.pdf) |  |

1. Minutes for 802.11 TG REVmc on Friday Aug 1, 2014 –
	1. **Called To Order** by Dorothy STANLEY (Aruba), Chair, at 10:01ET
	2. **Review Patent Policy** – no issues noted
	3. **Review Agenda**
		* 1. The agenda as previously announced:
			1. Call to order, patent policy, attendance
			2. Editor report, including MDR status updates

3. Comment resolution:

11-14-902-r3 - CIDs 3173, 3174, 3175– Fei TONG (Samsung)

 (remaining Fei TONG CID resolutions)

11-14-0923, Mike MONTEMURRO (Blackberry)

11-14-780, remaining trivial technical – Adrian STEPHENS (Intel)

4. AOB

5. Adjourn

* + 1. Propose to add Additional item: MDR Review - prior to #4. AOB
		2. No objection to the new agenda
	1. **Attendance**: Chris HARTMAN (Apple); Adrian STEPHENS (Intel); Dorothy STANLEY (Aruba); Jon ROSDAHL (CSR); Michael MONTEMURRO (Blackberry)(first 30 Minutes); Fei TONG (Samsung)(First 30 Minutes); Sigurd SCHELSTRAETE (Quantenna Communications, Inc.) (For about 45 minutes in the middle of call).
	2. **Editor Report**:
		1. Ongoing training with the new Editors
		2. Working on getting the new Editors up and working
		3. MDR processing is progressing – have some topics for discussion in the future.
	3. **Review 11-14/902r3** – Fei TONG (Samsung)
		1. CID 3173 (Editor), 3174 (GEN), 3175 (GEN)
		2. During the Face to face meeting we did not complete these 3 CIDs
		3. Use of word “Except”
		4. Review comment and context
		5. Proposed Resolution for all 3 CIDs: Revised; incorporate changes as noted in 11-14/902r3.
		6. No objection – mark all three ready for motion
		7. Thanks given to Fei and Adrian to finish this set off.
	4. **Review 11-14-0923r0** Michael MONTEMURRO (Blackberry)
		1. MAC CID proposed resolutions
		2. CID 3364 MAC
			1. Review Comment
			2. Commenter did not provide Proposed Text Changes
			3. Commenter asked to be assigned and will provide submission
		3. CID 3474 MAC
			1. Review comment and context
				1. “A VHT STA that is addressed by an RTS frame in a non-HT or non-HT duplicate PPDU that has a bandwidth signaling TA and that has the RXVECTOR parameter DYN\_BANDWIDTH\_IN\_NON\_HT equal to Dynamic behaves as follows:
* If the NAV indicates idle, then the STA shall respond with a CTS frame in a non-HT or non-HTduplicate PPDU after a SIFS period. The CTS frame’s TXVECTOR parameters CH\_BANDWIDTH and CH\_BANDWIDTH\_IN\_NON\_HT ~~may~~ **shal**l be set to ~~any~~ **a** channel width for which CCA on all secondary channels has been idle for a PIFS prior to the start of the RTS frame and that is equal to or less than the channel width indicated in the RTS frame’s RXVECTOR parameter CH\_BANDWIDTH\_IN\_NON\_HT.
* Otherwise, the STA shall not respond with a CTS frame.”
	+ - 1. Proposed Resolution: Accept
			2. No objection – mark ready for motion
		1. CID 3505 MAC
			1. Review comment
			2. Proposed Resolution: Accept
			3. No objection – mark ready for motion
		2. CID 3133 MAC
			1. Review comment and context
			2. Proposed Resolution: Reject. Figure 10-21 shows the flow for MLME primitives for BA setup, while Figure 10-22 shows the flow for MLME primitives for BA tear down. The figures are not the same.
			3. No objection – mark ready for motion
		3. CID 3147 MAC
			1. Review Comment and context
			2. Proposed Resolution: is to accept, but want to have the wording clarified more.
			3. This CID will be updated in an r1 of the document and revisited on the call on the 22nd.
	1. **Review Document 11-14/780r3** Remaining Tech Trivial - Adrian STEPHENS (Intel)
		1. Start where we left off finished CID 3443 last time
		2. CID 3223 (Editor)
			1. Review comment and context
			2. Proposed Resolution: Revised. At 1801.53, after “numerically larger MAC address” add “(see 11.6.1.1 for comparison of MAC addresses)”

At 1801.58, change “numerically larger (see 10.1.4.3.6 (PCP selection in a PBSS))” to “numerically larger (see 11.6.1.1 for comparison of MAC addresses and see 10.1.4.3.6)”

* + - 1. No objection – mark ready for motion
		1. CID 3511 (Editor)
			1. Review Comment and Context
			2. Proposed Resolution: Revised. Delete reference to Annex R at cited location.
			3. No objection – mark ready for motion
		2. CID 3038 (Editor)
			1. Review Comment
			2. Proposed Resolution: Accept
			3. Agreement in the Editor Review to handle this in comment and have the CID resolution checked with Dan – ACTION ITEM: Adrian to ask Dan if the change is OK.
		3. CID 3449 (Editor)
			1. Review Comment and context
			2. Proposed Resolution: Rejected. To answer the question, “better than” is equivalent to “less than”, because the metric represents a cost, starting at 0. The commenter does not provide specific wording that would satisfy the comment
			3. No objection – mark ready for motion
		4. CID 3494 (Editor)
			1. Review Comment
			2. Proposed Resolution: Revised. Replace “like equipment, which can” with “STAs that can” and Replace “can all handle” with “support”
			3. No objection – mark ready for motion
		5. CID 3044 (Editor)
			1. Review Comment
			2. Proposed Resolution: Revised. Remove any “…defined in 1.5…” (14 instances, all in the PHY).
			3. No objection – mark ready for motion
		6. CID 3083 (Editor)
			1. Review Comment
			2. Proposed Resolution: Rejected. Annex N is an informative Annex, so the burden of rigor can be relaxed. The surrounding text uses the word “assume” in various guises a lot, so the proposed change would introduce local inconsistency.
			3. No objection – mark ready for motion
		7. That completes 11-14/780 – r4 will be posted to mentor
	1. **MDR review** – 11-14/781r5
		1. Adrian posted r5 prior to discussion
		2. The presentation was change to r6 for capturing any changes from today’s discussion.
		3. Review the concept of “variable”
			1. Does “variable” mean “0 or n”?
			2. Propose not to change
			3. Review Figure 8-562
			4. No objection to “no change”
		4. P2852 L12-13:
			1. Discussed “must wait”-> “waits”
			2. The original findings proposed “shall wait”, but although Annex C is normative, it is the wrong place to specify MLME behavior.
			3. Make change as noted
		5. P2869 L40-41:
			1. Discussed “must use -> uses”
			2. Make change as noted.
		6. P2876 L13-14:
			1. Discuss proposed change
			2. No objection to proposed change
		7. P3321 L43-44
			1. Editor has rejected proposal to change must to shall
			2. Review context –
			3. No disagreement on rejecting the proposed change
		8. P3441 L54-55
			1. This change needs review by Dan
			2. ACTION ITEM: Adrian to check with Dan
		9. “Only”
			1. Note, there are about 193 “is only” in REVmc D3. The vast majority of these appear to fail the WG11 style guide on proper use of “only”. Only a smallish number of these were reported and addressed in the MDR.
			2. Propose to change MDR to read that the editor to review all uses of “is only” and adjust grammar where necessary.
		10. P976 L32-33
			1. Review context
			2. “If equal to 0, it will ~~only~~ reply under certain conditions (see 13.10.4.2 (Proactive PREQ mechanism)); it will not reply otherwise.”
			3. This does not make sense as if it is 1, then it does send, this is supposed to be that it replies under certain conditions when 0.
			4. Change the location of “only”
			5. “If equal to 0, it will ~~only~~ reply only under certain conditions (see 13.10.4.2 (Proactive PREQ mechanism)).”
		11. “SHALL ONLY”
			1. There are several of the “Shall only” that need reviewed.
			2. P1669.17 and 183.28 – Proposal -ok
			3. P1262.50
				1. We may not need normative statement here
				2. Deleting the paragraph is probably the right thing to do.
				3. A motion to approve the proposed changes to 11-14/781 will be made later.
				4. We can add a note to make this better

“Note – The tolerance for SIFS is defined in 9.3.2.3.3.”

* + - * 1. So we would replace the paragraph with the Note.
			1. P1332.34 - Proposal – ok
			2. P1641.50 - Proposal – ok
			3. P1703.10 - Proposal – ok
			4. P1703.22-
				1. Change the proposal to not delete the sentence.
				2. Replace “only” with “not” and insert an “except” after “URI element”
			5. P1706.11
				1. Make the proposed change and then delete the last sentence.
				2. Change to proposed change to leave the shall (change “shall only” to “shall”)
			6. P1709.24
				1. Discussion on does the “Shall only” mean “may” or “shall”
				2. The consequence of “shall” may be the source of a broadcast storm.
				3. Discussion was to leave as a “Shall”
		1. We are out of time.
		2. Thanks to Adrian on the work on the MDR.
	1. **AOB:**
		1. Items for next week:
			1. Remaining Aug 1st plans
			2. Mark Hamilton CIDs - resolutions available
			3. Mark Hamilton CIDs - need discussion
		2. The MDR may have another couple hours of review
		3. We will start with Mark Hamilton, and then return to the MDR processing.
	2. **Adjourned** 12:01pm
1. Minutes for 802.11 TG REVmc on Friday Aug 8, 2014 –
	1. **Called To Order** by Dorothy STANLEY (Aruba), Chair, at 10:01ET
	2. **Review Patent Policy – no issues noted**
	3. **Review Agenda**
		* 1. The agenda as previously announced:
			1. Call to order, patent policy, attendance
			2. Editor report

3. Comment resolution:

11-14- 0915, 11-14-0916 Security CIDs - Dan Harkins
11-14-0781, MDR (continued from August 1)
11-14-780r5- CID 3038 (Adrian)

4. AOB

5. Adjourn

* + 1. Propose to add Additional item: CID 3038 (Adrian), no objection
		2. No objection to the new agenda
	1. **Attendance:** Adrian STEPHENS (Intel); Dorothy STANLEY (Aruba); Dan HARKINS (Aruba), Mark RISON (Samsung), Edward AU (Marvell)
	2. **Editor Report:** Adrian STEPHENS (Intel)
		1. Application of agreed MDR edits completed.
		2. Estimate about an hour of additional MDR issues to discuss. Continue on today’s call.
	3. **Review 11-14/915r0 and 11-14/916r0 –** Dan HARKINS (Aruba)
		1. CID 3439 (MAC)
			1. Reviewed comment
			2. Propose to reject as no technical issue is identified; many interoperable implementations are available.
			3. Strings in 11r KDFs are all defined.
			4. The proposed change does not contain enough detail of the changes needed to satisfy the commenter; could reject on that basis.
			5. Agree to change assignment of the comment from Dan HARKINS to Mark RISON (the commenter), submission required.
		2. CID 3437 (MAC)
			1. Proposed resolution: Rejected, The cited string is defined at 2009.64.
		3. CID 3436 (MAC)
			1. The ordering in the cited figures is the same.
			2. No technical change is requested by the commenter; a note is requested.
			3. Value of a note is unclear, as there are many implementations, and the text language is clear.
			4. Proposed resolution: Rejected, No technical issue is identified by the commenter; numerous interoperable implementations exist, indicating that the lack of the recommended note is not a problem for the standard.
		4. CID 3432 (MAC)
			1. Reviewed comment; text not at cited location.
			2. Text at 1935.46 and 1937.44 reviewed.
			3. Agree that delete/destroy language should be replaced by one term, agree to “deletes”
			4. How does “securely deleting” differ from “deleting”?
			5. Should this become a note? Discussion. No, making a recommendation and would lose this from the standard if deleted.
			6. Zero out memory first, common security coding practice. No agreement that we need to define “securely deleting”.
			7. Proposed resolution: Revised, At 1937.44 change from “destroys” to “deletes”.
		5. CID 3081 (MAC)
			1. Proposed resolution: Revised, Change the title to “BIP with broadcast Deauthentication frame".
		6. CID 3080 (MAC)
			1. Proposed Resolution: Revised Change the header to “CCMP test vector”.
		7. CID 3014 (MAC)
			1. Proposed resolution: Revised, Make the KCK\_bits, and KEK\_bits for rows 00-0F-AC:8 and 00-0F-AC:9 match those of 00-0F-AC:7; and to make the "Size of MIC" for 00-0F-AC:8 match that of 00-0F-AC:9.
		8. CID 3040 (MAC)
			1. Review the comment and the proposed changes in 11-14-0916r0.
			2. Proposed resolution: Revised, incorporate the text changes in 11-14-0916r0 for 11.6.1.7.3.
		9. CID 3039 (MAC)
			1. Review comment and similar text in surrounding sections.
			2. Propose to add text describing TKIP use prohibition to make consistent.
			3. Will this cause an issue for deployed HT/VHT MBSS devices? Believe not.
			4. Make this change visible to the membership – chair will call attention to this resolution in meeting notes posting.
			5. Proposed resolution: Revised, At 1916.19 insert “An HT STA in an MBSS shall eliminate TKIP as a choice for the pairwise cipher suite if CCMP is advertised by the peer or if the peer included an HT Capabilities element in any of its Beacon or Probe Response frames.”
		10. CID 3037 (MAC)
			1. Review the comment and the proposed changes in 11-14-0916r0.
			2. Proposed resolution: Revised, incorporate the text changes in 11-14-0916r0 for 11.3.4.2.2.
		11. CID 3002 (MAC)
			1. Reviewed the comment and cited text.
			2. Requirement is valid for Suite B, but not otherwise
			3. Proposed resolution: Revised, delete the cited text 810.8.
		12. CID 3768 (MAC)
			1. Reviewed the comment, and other locations of similar strings.
			2. Proposed resolution: Revised, Make the following changes:

At 1934.64, change as shown: The EAPOL-Key state machines (see 11.6.10 (RSNA Supplicant key management state machine) and 11.6.11 (RSNA Authenticator key management state machine)) configure the temporal key into a STA via the MLME-SETKEYS.request primitive.. Its interpretation is cipher-suite-specific.

At 118.5 delete “into the IEEE Std 802.11”

At 1943.26 delete “to configure into IEEE Std 802.11”

At 1965.31 delete “into IEEE Std 802.11 MAC”

* 1. **Review 11-14-0780r4** Adrian STEPHENS (Intel)
		1. CID 3038 (EDITOR)
			1. Comment is discussed on page 32.
			2. Comment relates to use of “Must”, propose to change to shall. No objection.
			3. Proposed resolution: Accepted.
	2. **MDR review – 11-14/781r7** Adrian STEPHENS (Intel)
		1. Page 14: P3441 L54-55 – Agree to change to “shall”
		2. Page 30; P1709.43
		3. P1748.32 – no objection to deleting “only”
		4. P1759.53 – no objection to the changes shown
		5. P1760.07 – ok with the change
		6. P1766.15
			1. Discussed requirement for location capabilities. Review ESR field value definition. No decision made, pick up here next time on MDR comments.
		7. We are out of time.
		8. Thanks to Adrian on the work on the MDR.
	3. **AOB:**
		1. Items for next week:
			1. Mark Hamilton CIDs - resolutions available
			2. Mark Hamilton CIDs - need discussion
			3. Continue MDR comments
		2. We will start with Mark Hamilton, and then return to the MDR processing.
	4. **Adjourned 12:00pm**
1. Minutes for 802.11 TG REVmc on Friday Aug 15, 2014 –
	1. **Called To Order** by Dorothy STANLEY (Aruba), Chair, at 10:02ET
	2. **Review Patent Policy – no issues noted**
	3. **Review Agenda**
		* 1. The agenda as previously announced:
			1. Call to order, patent policy, attendance
			2. Editor report

3. Comment resolution:

Mark Hamilton CIDs - resolutions available
Mark Hamilton CIDs - need discussion
MDR issues 11-14-0781 (did not discuss)

4. AOB

5. Adjourn

* + 1. No objection or additions to the agenda
	1. **Attendance:** Mark HAMILTON (Spectralink), Adrian STEPHENS (Intel); Dorothy STANLEY (Aruba); Mark RISON (Samsung), Edward AU (Marvell), Scott MARIN (Nokia Networks)
	2. **Editor Report:** Adrian STEPHENS (Intel)
		1. Application of agreed MDR edits completed. Draft 3.1 incorporating the MDR edits to be posted shortly.
		2. Editorial comment resolution development underway; partitioned among Adrian, Edward and Emily. Anticipate a D3.2 incorporating the proposed editorial resolutions. Holding off on incorporating resolutions to approved technical comments until MDR and editorials completed.
	3. **Review 11-14/1042r0 –** Mark HAMILTON (Spectralink)
		1. CID 3128 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment.
			2. Issue with proposed resolution: not all named fields present in both PCP/user priority. Change to two sentences, one for received .1Q frame and one for .1D frame.
			3. Mark to prepare proposed resolution.
		2. CID 3144 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment.
			2. Agree that parameters should be added. Text for 60GHz and 80/160 not specified.
			3. Could say: optionally present if dot11VHTOptionImplemented
			4. Mark to prepare proposed resolution.
		3. CID 3285 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment
			2. Comment is on 9.2.1 figure – too complex.
			3. Agree to direction of splitting the figure as described.
			4. Mark to prepare proposed resolution.
		4. CID 3506 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment.
			2. Agree in concept. Annex R is informative.
			3. Concept is useful. Should the concept become normative in the text?
			4. Define in clause 4, normatively. Probably in 4.5.2.1, 98.25.
			5. Mark to prepare proposed resolution.
		5. CID 3507 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment
			2. Similar to 3506, but extending to architectural level of the MAC, in 5.1.1.1 for example.
			3. Disagree. DS is passing “data” around: SDU. Contents not analyzed. However in the MAC, tuple devolves after being submitted to the MAC.
			4. Maybe we need a new term that does not include “SDU”.
			5. See 129.44 “The reordering of MSDUs”.
			6. DS needs to understand addressing.
			7. “MAC Service tuple”?
			8. Mark to consider further and propose a resolution.
		6. CID 3519 (MAC)
			1. Discuss to determine direction of resolution. Reviewed comment.
			2. In reverse direction (uplink data, implicit Block ACK request...), have a single frame exchange sequence.
			3. Believe component/key part of frame exchange: separate with SIFS.
			4. In frame exchange, require some attributes to be the same.
			5. Observation: we all have different assumptions about what constitutes a frame exchange sequence. Might be underspecified.
			6. Does anything break? Don’t know. Would need to look or heavily sample current definitions of frame sequence.
			7. This comment was generated based on work with TXOP. Is frame exchange sequence aligned with TXOP?
			8. Mark to consider further and propose a resolution.
		7. CID 3129, 3131, 3132 (MAC)
			1. Are related to resolution of CID 3128.
			2. References to 802.1 documents refer to 2003 versions, need to be updated. Need to look at all references to 802.1 documents, and make sure nothing breaks by updating the reference.
			3. CFI may have been there for token ring; frame came from token ring.
			4. Wouldn’t an old bridge be confused by the DEI bit value?
			5. Mark will bring back proposed resolution.
		8. CID 3150 (MAC)
			1. Reviewed comment and proposed resolution.
			2. Figure B.6 is the figure submitted to 802.1.
			3. Mesh is not included in either B.6 or 14-4 (current reference)
			4. Mark will bring back proposed resolution.
		9. CID 3277 (MAC)
			1. Reviewed comment and proposed resolution
			2. Proposed resolution: Revised, In the Description, change to “Indicates the RCPI value contained in the received Association Response frame. This value represents the RCPI that the AP or PCP measured at the time it received the corresponding Association Request frame. The element is optionally present if dot11RMRCPIMeasurementActivated is true; otherwise not present." At 170.20 and 171.38, change from “RCPI.request” to “RCPI of Request”. At 170.22 and 171.53 change “RCPI.response” to “RCPI of Response”. Make similar changes in 6.3.34.3.2.
		10. CID 3278 (MAC)
			1. Reviewed comment and proposed resolution
			2. Proposed resolution: Revised, In the Description, change to “Indicates the RSNI value contained in the received Association Response frame. This value represents the RSNI that the AP or PCP measured at the time it received the corresponding Association Request frame. The element is optionally present if dot11RMRSNIMeasurementActivated is true; otherwise not present." At 170.21 and 171.45, change from “RSNI.request” to “RSNI of Request”. At 170.23 and 172.3 change “RSNI.response” to “RCPI of Response”. Make similar changes in 6.3.34.3.2.
		11. CID 3279 (MAC)
			1. Reviewed comment and proposed resolution
			2. Proposed resolution: Revised. Change the Description to "Indicates the RCPI value contained in the received Reassociation Response frame. This value represents the RCPI that the AP or PCP measured at the time it received the corresponding Reassociation Request frame. The element is optionally present if dot11RMRCPIMeasurementActivated is true; otherwise not present." At 184.32 and 185.41, change from “RSNI.request” to “RSNI of Request”. At 184.34 and 185.53 change “RSNI.response” to “RCPI of Response”. Make similar changes in 6.3.34.3.2.
		12. CID 3280 (MAC)
			1. Reviewed comment and proposed resolution
			2. Proposed resolution: Revised. Change the Description to "Indicates the RSNI value contained in the received Reassociation Response frame. This value represents the RCPI that the AP or PCP measured at the time it received the corresponding Reassociation Request frame. The element is optionally present if dot11RSNIMeasurementActivated is true; otherwise not present." At 184.33 and 185.48, change from “RSNI.request” to “RSNI of Request”. At 184.35 and 186.3 change “RSNI.response” to “RCPI of Response”. Make similar changes in 6.3.34.3.2.
		13. CID 3287 (MAC)
			1. Reviewed comment and proposed resolution
			2. Propose: Revised. Accept the proposed change to Figure 4-16, also remove the arrows in Figure 4-17 (See CID 3289). In Figure 4-16, shorten the lines from the SS to the edge of the STA boxes. In Figure 4-17, add “SS” and lines to the edges of the STA boxes, similar to Figure 4-16. However, reject the deletion of "SS" because STAs in an IBSS still offer a subset of the SS services. Per 4.4.2, "The SS is present in every IEEE Std 802.11 STA"
		14. CID 3289 (MAC)
			1. Reviewed comment and proposed resolution
			2. Proposed resolution: Accepted.
		15. CID 3356 (MAC)
			1. Reviewed comment and proposed resolution
			2. Discuss cited text; streams switched between STA MACs.
			3. Proposed: Rejected: Multiple STAs may share a single PHY, as shown in Figure 4-21 (D3.0 numbering). Other multiple STA situations in the multiband subclause clearly show exactly one PHY per STA. Thus, there is no ambiguity - a given STA can have only one PHY.
		16. CID 3363 (MAC)
			1. Reviewed comment and proposed resolution
			2. Propose: Rejected: "may discard […] if […] desirable" seems to be in 10.2.3.5(k), which is for IBSS. 10.2.2.12 is for the "AP aging function" which is by definition not for IBSSs. Further, 10.2.2.12 is trying to say that the aging function, specifically, shall not discard frames before the ListenInterval, but that there are other reasons (outside the aging function) for an AP to discard frames. This is specifically discussed in the NOTE in 10.2.2.12.
		17. CID 3389 (MAC)
			1. Reviewed comment and proposed resolution
			2. Discussion on text at 1315.53. TXOP limit of 0 –
			3. Most systems operate with TXOP limit of 0. Traffic sent with BE.
			4. Don’t think we can change this.
			5. Did 11ac change this?
			6. Potential larger issue: concern that implementations grab the medium and send many ms of traffic, preventing VO and VI traffic.
			7. TXOP limit of 0 – means send one more frame.
			8. In practice, wouldn’t be an issue, but now have massive PHY structures than can carry 1Mb of traffic in a frame.
			9. 802.11-2012 allowed a single MSDU or MMPDU …
			10. Issue began with inclusion of AMPDU (11n).
			11. Concern that text is not clear.
			12. Proposed resolution: Revised, at 1315.52 insert “One or more” at the beginning of line item 1.
		18. Mark Hamilton has 3 CIDs remaining of this initial set: 3485, 3510 and 3514. Start with these on next week’s call.
	4. **MDR issues 11-14-0781 –** not discussed, out of time.
	5. **AOB:**
		1. Items for next week (subject to change, chair to confirm status with assignees):
			1. Mark Hamilton: CIDs 3485, 3510 and 3514
			2. Location CIDs - 11-14-0952 - Gabor Bajko
			3. Location CIDs - 11-14-0930 - Brian Hart
			4. Regulatory CIDs - 11-14-0955 - Peter Ecclesine
			5. Mike Montemurro  - 11-14-0923 (continued from August 1)
	6. **Adjourned 12:00pm**
1. Minutes for 802.11 TG REVmc on Friday Aug 22, 2014 –
	1. **Called To Order** by Dorothy STANLEY (Aruba), Chair, at 10:03ET
	2. **Review Patent Policy – no issues noted**
	3. **Review Agenda**
		* 1. The agenda as previously announced:
			1. Call to order, patent policy, attendance
			2. Editor report

3. Comment resolution:

Mark Hamilton CIDs - 3485, 3510, 3514
Regulatory comments – 11-14-0955 – Peter Ecclesine
Mike Montemurro - 11-14-0923 (continued from August 1)

4. AOB

5. Adjourn

* + 1. No objection or additions to the agenda
	1. **Attendance:** Mark HAMILTON (Spectralink), Dorothy STANLEY (Aruba); Mark RISON (Samsung), Scott MARIN (Nokia Networks), Jon ROSDAHL (CSR), Peter ECCLESINE (Cisco).
	2. **Editor Report:** Adrian STEPHENS (Intel)
		1. No report, as Adrian is not on the call today.
	3. **Review 11-14/1042r0 –** Mark HAMILTON (Spectralink)
		1. CID 3485 (MAC)
			1. Reviewed comment.
			2. Concern with duplication of text. 11ah will introduce another type that inherits the properties of VHT. Don’t need to call out the individual PHYs in clause 9.
			3. Update: 11ah puts in new text for this section, introduces new terms.
			4. Proposed resolution: Rejected. No change is needed. The listed actions are already appropriately exclusive in the single list.
		2. CID 3510 (MAC)
			1. Reviewed comment.
			2. STATE or STATUS? 532.44 for example uses “STATUS”. This needs to be changed, but not as part of this comment.
			3. Agree with direction, minor changes to primitive parameter reference.
			4. Proposed resolution: Revised, “Change to ""Channel idle for an interval of PIFS" means the STATE parameter of the most recent PHY-CCA.indication primitive was IDLE, and no PHY-CCA.indication(BUSY) occurred during the period of PIFS that ends at the start of transmission ..."”
		3. CID 3514 (MAC)
			1. Reviewed comment.
			2. Proposed Resolution: Accepted.
		4. CID 3277, 3278, 3279, 3289 (MAC)
			1. Discussed these comments last week. One missing occurrence.
			2. Add “Make similar changes in 6.3.34.3.2.” to the resolutions of CIDs 3277, 3278, 3279, 3280.
			3. Added sentence to the proposed resolutions in last week’s minutes.
	4. **Review 11-14-0955** – Peter ECCLESINE
		1. CID 3739 (MAC)
			1. Reviewed comment.
			2. As defined in 8.4.2.161 VHT Transmit Power Envelope element, the allowed values are indicated in the VHT Transmit Power Envelope element, and Operating Classes with UseEirpForVHTTxPowEnv indicate that the VHT Transmit Power Envelope are used by VHT STAs. This is redundant to the requirement in Annex D defining UseEirpForVHTTxPowEnv and this paragraph can be deleted.
			3. Proposed resolution: Revised. Delete the paragraph at 1620.16 starting “A STA that transmits”.
			Note to commenter: As defined in 8.4.2.161 VHT Transmit Power Envelope element, the allowed values are indicated in the VHT Transmit Power Envelope element, and Operating Classes with UseEirpForVHTTxPowEnv indicate that the VHT Transmit Power Envelope are used by VHT STAs. This is redundant to the requirement in Annex D defining UseEirpForVHTTxPowEnv and this paragraph can be deleted.
		2. CID 3306 (MAC)
			1. Reviewed comment.
			2. Observation “How about swapping E-4 and E-5, so the global stuff is always last? Or even putting the global stuff first, i.e. E-4 to E-1, E-1/2/3 to E-2/3/4?
			3. A submission would be required to swap the table numbers. Also MIB changes required to change MIB descriptions.
			4. Concern with breaking backward compatibility with 2012 standard. Numbers “over the air” now are table numbers.
			5. Also, this change is independent from the submitted comment.
			6. Discussion: As 802.11ac added Table E-5, it should be mentioned in E.1 text.
			7. Proposed resolution: Accepted.
		3. CID 3304 (MAC)
			1. Reviewed comment.
			2. Comment inserts “Default” at the beginning of the last sentence in D.2.5.
			3. Word “default is not clear – relative to what? Defined in the standard.
			4. For example 18.3.10.6 includes default values in the standard.
			5. Point of second sentence is already included in first sentence. There is no distinction in PHY clauses between license-exempt bands and unlicensed bands,
			6. Proposed resolution: Revised. At 3307.09, delete the second sentence:”CCA-ED thresholds for operation in license-exempt bands are stated in PHY clauses.”
		4. CID 3302 (MAC)
			1. Reviewed comment.
			2. P3300 includes the name.
			3. Observation: Why not give the hanzi (and maybe the English translation, not transliteration, in parens)? It’s not as if Unicode is anything new now.
			4. Current naming is consistent with the 2002 entries. All would need to be changed to be consistent.
			5. Proposed resolution: Rejected. The name of the appropriate 5GHZ directive for 5150 to 5330 “Gong Xin Bu Wu Han [20012] #620 is already present, 3300.52.
		5. CID 3098 (MAC)
			1. Reviewed comment.
			2. Occurrences are at 1626.57, 1629.12. Propose to delete the last part of the sentence.
			3. Observation: The commented phrase appears at 10.9.8.2, 10.9.8.4.1, and “applicable regulatory” text is in the body of the draft.
			4. Proposed resolution: Revised. At 1626.57 and 1629.12 change the sentence containing “a new channel is beyond the scope of this standard but shall satisfy applicable to ” a new channel is beyond the scope of this standard.” At 2167.50 and 2196.1, delete the sentence “See the applicable regulations for the countries in which the implementation operates.”
		6. CID 3079 (MAC)
			1. Reviewed comment.
			2. We choose to remove the references so as to restrict use to only the Global Operating Classes in TVWS bands.
			3. Observation: “Would be clearer as “None”. Also could add an em dash for 1-80, 88-93, 97-100 and change the hyphens to “None” for 106 to 108. Oh and also some “None”s in Tables E-1 and E-2.”
			4. In this column, most of the reserved entries are empty. Some entries are m-dash, some hyphens.
			5. Propose resolution: Revised. At 3316.61, 63 and 65 change the non-global operating class value to an em-dash. Throughout tables E-1 through E-3 and E-5, change blank global operating class values to an em-dash and in table E-4 change “-“ and blank non-global operating class values to an em-dash.
		7. CIDs 3078, 3077, 3054, 3053 (MAC) – ran out of time, consider on next week’s call.
	5. **AOB:**
		1. Items for next week (subject to change, chair to confirm status with assignees):
			1. Regulatory CIDs - 11-14-0955r1 - Peter Ecclesine 3078, 3077, 3054, 3053
			2. Mike Montemurro  - 11-14-0923 (continued from August 1)
			3. Further MDR input required from TGmc
			4. Assigned CIDs – 11-14-1041 - Dorothy Stanley
	6. **Adjourned 12:00pm**
1. Minutes for 802.11 TG REVmc on Friday Aug 29, 2014 –
	1. **Called To Order** by Jon Rosdahl Vice-Chair, at 10:13am ET
	2. **Review Patent Policy – no issues noted**
	3. **Review Agenda**
		* 1. The agenda as previously announced:
			1. Call to order, patent policy, attendance
			2. Editor report

3. Comment resolution:

1. Regulatory CIDs - 11-14-0955 - Peter ECCLESINE: 3078, 3077, 3054, 3053
2. 11-14-0923 -Mike MONTEMURRO  - (continued from August 1)
3. Further MDR input required from TGmc
4. Assigned CIDs - 11-14-1041 - Dorothy STANLEY

4. AOB

5. Adjourn

* + 1. No objection or additions to the agenda
	1. **Attendance:** Jon ROSDAHL (CSR); Peter ECCLESINE (Cisco); Adrian STEPHENS (Intel); Mark RISON (Samsung); Mike MONTEMURRO (Blackberry); Dorothy STANLEY (Aruba); Edward AU (Marvell); Sean COFFEY (Realteak);
	2. **Editor Report:** Adrian STEPHENS (Intel)
		1. Not a lot since last week.
		2. Tentative draft v3.01 with the MDR tentatively put in
		3. If we don’t complete the MDR today, then we can still start with that version
		4. If we complete the MDR today, then we will add a version with all the MDR changes included.
	3. **Review11-14-0955**- Peter ECCLESINE: 3078, 3077, 3054, 3053
		1. Need to complete the review of the last four comments
		2. CID 3053 GEN
			1. Review Comment
			2. Proposed Resolution: Revised. At 3308.36 Change as shown: “The channel starting frequency variable is a frequency, used together with an operating class number and a channel number~~,~~ to calculate a channel center frequency. A ‘—‘ in the channel starting frequency field indicates the channel starting frequency is outside the scope of this standard and is derived from regulation.”

At 3308.40 change as shown: “Channel spacing is the frequency difference between nonoverlapping adjacent channel center frequencies when using the maximum radio bandwidth of one frequency segment allowed for this operating class.”

* + - 1. Discussion on what Table E1 is supposed to provide.
			2. Look at Table D-2 Behavior Limits Sets –
			3. Discussion on the validity of the discussion
			4. When is the “—“ giving meaningful information.
			5. Change “A ‘—‘ in the channel starting frequency field indicates the channel starting frequency is not defined by the operating class and is derived from regulation.”
			6. “Maximum Bandwidth” vs “Maximum Radio Bandwidth” discussion
				1. Change to Maximum Bandwidth
			7. Updated Resolution: Revised. At 3308.36 Change as shown: “The channel starting frequency variable is a frequency, used together with an operating class number and a channel number~~,~~ to calculate a channel center frequency. A ‘—‘ in the channel starting frequency field indicates the channel starting frequency is not defined by the operating class and is derived from regulation”

At 3308.40 change as shown: “Channel spacing is the frequency difference between nonoverlapping adjacent channel center frequencies when using the maximum bandwidth of one frequency segment allowed for this operating class.”

* + 1. CID 3054 GEN
			1. Review Comment
			2. Proposed Resolution: Revised. At 3308.44 insert “ A ‘—‘ in the channel set field indicates either that the values in the channel center frequency index field apply for calculating channel center frequencies of this operating class, or where both the channel set field and the channel center frequency index field are ‘—‘ indicates that the channel set is not defined by the operating class and is derived from regulation.”
			3. Discussion on the difference of blanks or “em-dash”
			4. The difference in blanks and dash seems to be lost.
			5. Need to change the Channel Center frequency and Channel Set to “em-dash
			 if they are blank.
			6. Updated Resolution: Revised. At 3308.44 insert “ A ‘—‘ in the channel set field indicates either that the values in the channel center frequency index field apply for calculating channel center frequencies of this operating class, or where both the channel set field and the channel center frequency index field are ‘—‘ indicates that the channel set is not defined by the operating class and is derived from regulation.” Throughout Tables E-1 through E-5, change blank channel set values to an em-dash.
		2. CID 3077
			1. Review comment
			2. Apply same adjustment to the resolution.
			3. Proposed Resolution: Revised at 3308.476 insert “A ‘--‘ in the channel center frequency index field indicates either that the values in the channel set field apply for calculating channel center frequencies of this operating class, or whee both the channel set field and the channel center frequency index field are “\_\_’ indicates that the channel center frequency index is not defined by the operating class and is derived from regulation. “ Throughout tables E-1 through E-5, change blank channel center frequency to index values to an em-dash.
	1. **Dorothy arrived and took charge of the meeting at this point 11:04 AM ET**
		1. Continue with 11-0955
			1. CID 3077 GEN
				1. Review comment
				2. Proposed Resolution: Revised At 3308.47 insert A ‘—‘ in the channel center frequency index field indicates either that the values in the channel set field apply for calculating channel center frequencies of this operating class, or where both fields are ‘—‘ indicates that the channel center frequency index is not defined by the operating class and is derived from regulation. “Throughout tables E-1 through E-5, change blank channel center frequency to index values to an em-dash.
			2. CID 3078 GEN
				1. Review comment
				2. Concern on the possible missing text in Note 1
				3. Proposed Resolution: Revised. At 3310.38, 3312.35, 3316.16, 3319.38 and 3320.58 Note 1 change “is for the supported channel width rather than the operating channel width.” to “specifies the maximum radio bandwidth of one frequency segment.”

At 3316.6, Replace second sentence with “In these operating classes, the AP operating in a 20/40 MHz BSS, and the operating channel width for a non-AP STA is either 20 MHz or 40 MHz”.

At 3310.42, 3312.39, 3316.19, 3319.42 and 3320.62 replace Note 2 with “NOTE 2—The channel spacing for operating classes 128, 129, and 130 specifies the maximum radio bandwidth of one frequency segment.”

* + 1. All the changes noted in the proposed resolution will be uploaded in an R2 of 11-14/0955.
		2. No objection to the revised resolutions -- mark ready for motion.
	1. **Review 11-14-0923r2 Mike MONTEMURRO**
		1. CID 3147 and 3148 MAC
			1. Review comments
			2. Similar resolution for both comments
			3. Proposed Resolution: Revised. At 1645.14, Change “If the MAC Address field was included in the frame request, a Frame Report Entry where Transmitter Address (TA) matches the MAC address in the frame request shall be included in the Frame report if at least one data or Management frame was received with this Transmitter Address during the measurement duration. If the MAC address field was not included in the frame request in response to which this Frame report is being generated, the measuring station shall report all frames received during the measurement duration in one or more Frame Report elements.” To “If the MAC Address field included in the frame request was not set to the broadcast address, a Frame Report Entry where Transmitter Address (TA) matching the MAC address field value shall be included in the Frame report if at least one data or Management frame was received with this Transmitter Address during the measurement duration. If the MAC address field included in the frame request was set to the broadcast address, the measuring station shall report all data or management frames received during the measurement duration in one or more Frame Report elements.”

At 737.18, Change “If the MAC Address field is the broadcast address, then all frames are counted toward the Frame report generated in response to this frame request.” To “If the MAC Address field is the broadcast address, then all Data or Management frames are counted toward the Frame report generated in response to this frame request.”

* + - 1. No objection – mark ready for motion
		1. CID 3218 MAC
			1. Review comment
			2. <<See Proposed resolution in r2 of the document in the table.>>
			3. Need to include a definition of “n”.
			4. Mike will bring back with a formal resolution proposal at the Athen’s meeting.
		2. CID 3222 MAC
			1. Review Comment
			2. Proposed Resolution: “…it becomes the responder and responds…” with “…it becomes the responder and shall respond with an…”
			3. Question how to make the changes proposed.
			4. Question on what the specific response text..it was fixed above.
			5. No objection to the revised resolution -- mark ready for motion.
		3. CID 3224 MAC
			1. Review Comment
			2. Took proposed changes and applied them to the text and show it in the proposed resolution column.
			3. Corrected some minor editorial issues “an” “is”
			4. See R2 for final text.
			5. Proposed Resolution: Revised - <see text from table>
			6. Mark ready for motion with text from R2
		4. CID 3225 MAC
			1. Review Comment
			2. Adjust the resolution for some grammar issues.
			3. Add note for Editor to adjust grammar.
			4. Proposed Resolution: Revised – make changes as noted in 11-14/923r2.
			5. No objection – mark ready for motion
		5. CID 3283 MAC
			1. Review comment
			2. Proposed resolution: Revised. Add “(see Table 15-9 RCPI values)).” At the end of the sentence at the cited location.
			3. No objection – mark ready for motion.
		6. CID 3308 MAC
			1. Review Comment
			2. Previous Discussion reviewed
			3. Proposed resolution Revised: make changes as noted in 11-14/923r2.
			4. No objection – mark ready for motion.
		7. CID 3504 MAC
			1. Review comment
			2. Removal of “TIMEOUT” when it was a local matter, and we have removed them. Does the SME wait forever? No the implementation of the TIMEOUT is not part of the protocol.
			3. Concern that 281.26 is wrong – prefix the second sentence with something like “
			4. Proposed resolution: Revised; Remove “d)” at cited location. At 281.26, insert at start of second sentence: “In the case that a response is received from the responder STA”….
			5. Mike will go back and revise and bring back an updated resolution.
		8. Out of time – need to have agenda time in Athens and updated resolutions will be brought.
	1. **Out of Time – Upcoming plans:**
		1. Next week:
			1. MDR comments
			2. Edward to check if we can move the VHT comments to Athens
				1. No submission seen on server (assigned from Vinko’s comments).
				2. Review 11-14-1041 Dorothy STANLEY
		2. Busy Week in Athens for sure.
	2. **Adjourned - 12:00pm ET**

**References:**

[**https://mentor.ieee.org/802.11/dcn/13/11-13-0233-36-000m-revmc-wg-ballot-comments.xls**](https://mentor.ieee.org/802.11/dcn/13/11-13-0233-36-000m-revmc-wg-ballot-comments.xls)

**2014-08-01**

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0902-03-000m-resolution-for-some-vht-phy-comments-on-revmc-d3-0.doc**](https://mentor.ieee.org/802.11/dcn/14/11-14-0902-03-000m-resolution-for-some-vht-phy-comments-on-revmc-d3-0.doc)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0923-00-000m-tgmc-selected-mac-comment-resolutions.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0923-00-000m-tgmc-selected-mac-comment-resolutions.docx)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0780-06-000m-lb202-stephens-resolutions.doc**](https://mentor.ieee.org/802.11/dcn/14/11-14-0780-06-000m-lb202-stephens-resolutions.doc)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0781-08-0000-p802-11revmc-mdr-report.doc**](https://mentor.ieee.org/802.11/dcn/14/11-14-0781-08-0000-p802-11revmc-mdr-report.doc)

**2014-0-08-08:**

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0916-00-000m-security-comments-lb202.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0916-00-000m-security-comments-lb202.docx)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0915-00-000m-lb202-security-comments.xls**](https://mentor.ieee.org/802.11/dcn/14/11-14-0915-00-000m-lb202-security-comments.xls)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0781-08-0000-p802-11revmc-mdr-report.doc**](https://mentor.ieee.org/802.11/dcn/14/11-14-0781-08-0000-p802-11revmc-mdr-report.doc)

**2014-0-08-15:**

[**https://mentor.ieee.org/802.11/dcn/14/11-14-1042-00-000m-assigned-mac-comments-for-review-or-discussion.xls**](https://mentor.ieee.org/802.11/dcn/14/11-14-1042-00-000m-assigned-mac-comments-for-review-or-discussion.xls)

**2014-08-22**

[**https://mentor.ieee.org/802.11/dcn/14/11-14-1042-00-000m-assigned-mac-comments-for-review-or-discussion.xls**](https://mentor.ieee.org/802.11/dcn/14/11-14-1042-00-000m-assigned-mac-comments-for-review-or-discussion.xls)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0955-00-000m-lb202-regulatory-comments.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0955-00-000m-lb202-regulatory-comments.docx)

**2014-08-29**

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0955-02-000m-lb202-regulatory-comments.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0955-02-000m-lb202-regulatory-comments.docx)

[**https://mentor.ieee.org/802.11/dcn/14/11-14-0923-01-000m-tgmc-selected-mac-comment-resolutions.docx**](https://mentor.ieee.org/802.11/dcn/14/11-14-0923-01-000m-tgmc-selected-mac-comment-resolutions.docx)

**2014-09-05**