IEEE P802.11
Wireless LANs

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| IEEE 802.11 TGaxMinutes from TGax non-PHY ad hoc meeting September 2017 |
| Date: 2017-09-10 |
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Abstract

This document contains minutes from TGax non-PHY ad hoc meeting September 2017, held in Santa Clara.

**IEEE 802.11 Task Group ax non-PHY ad hoc meeting**

**Santa Clara, CA, USA**

**September 6th – 8th, 2017**

**TGax Chair Osama Aboul-Magd (Huawei Technologies)**

**Vice Chair Simone Merlin (Qualcomm)**

**Vice Chair Ron Porat (Broadcom)**

**TGax Secretary Yasuhiko Inoue (NTT)**

**TGax Technical Editor Robert Stacy (Intel)**

**Wednesday, September 6th, 2017 (10:00 – 18:00)**

1. The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chair of the TGax, @10:00
2. **Agenda Setting**
	1. Agenda Doc.11-17/1251r1 on the server..
		1. TGax Ad Hoc Meeting Schedule – general flow
			1. Wednesday 10:00 – 18:00
				1. Comment Resolution
				2. Recess
			2. Thursday 9:00 – 18:00
				1. Comment Resolution
				2. Recess
			3. Friday 9:00 – 17:00
				1. Comment Resolution
				2. Adjourn
		2. Agenda for Wednesday, September 6th 2017 – detailed agenda is on slide 14 of 17/1251r1.
			1. Call meeting to order
			2. Patent policy, etc.
			3. Announcements
			4. Call for submissions
			5. Set agenda
			6. Presentations and Comment Resolution
			7. Recess
3. **The chair reviewed the mandatory 6 slides of P&P.**
	1. Instructions for the WG Chair.
	2. Participants, Patents, and Duty to Inform.
	3. Patent Related Links.
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents.
		2. No potentially essential patents reported.
	5. Other Guidelines for IEEE WG Meetings.
	6. Participation in IEEE 802 Meetings
4. **Call for submissions**
	1. Complete list of the submission can be found on slide 15 of the agenda file (17/1251).
5. **Presentations**
	1. **Abhishek Patil (Qualcomm) presented “CIDs Related to TF,” based on the submission 11-17-1275-03.**
		1. Summary
			1. Resolutions for 41 CIDs related to the trigger frame are proposed.
			2. Relevant CIDs: 3011, 6079, 7482, 8534, 5914, 6290, 7742, 8344, 8652, 7743, 7744, 9629, 9823, 7483, 9776, 7671, 8656, 7524, 6083, 5825, 6061, 9259, 8339, 9632, 7747, 8023, 9634, 9758, 7746, 9347, 9830, 9474, 5380, 3017 7954, 9639, 7265, 8379, 9506, 7751, 5707.
		2. Discussion
			1. A member expressed objection to the resolution for one CID. 🡪 Abhi discussed with the members colleague.
			2. Another member asked a question related to the multi-BSSID function.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 3011, 6079, 7482, 8534, 5914, 6290, 7742, 8344, 8652, 7743, 7744, 9629, 9823, 7483, 9776, 7671, 8656, 7524, 6083, 5825, 6061, 9259, 8339, 9632, 7747, 8023, 9634, 9758, 7746, 9347, 9830, 9474, 5380, 3017 7954, 9639, 7265, 8379, 9506, 7751, and 5707 in doc.11-17/1275r4?**
			1. **Result: No objection.**
		4. Next Step
			1. Ready for motion.
		5. Note – Chair noted that a member has a point on the setting of AID, an issue that needs to be considered by the TG – not related to this submission
	2. **Abhishek Patil (Qualcomm) presented “**Proposed Resolution for CID 9846**,” based on the submission 11-17-1278-01.**
		1. Summary
			1. Resolution for the CID 9846 related to TXOP\_DURATION is proposed.
		2. Discussion
			1. No discussion.
		3. **Straw Poll: Do you agree to the resolution to CID 9846 in doc 11-17/1278r1?**
			1. **Result: No objection.**
		4. Next Step
			1. Ready for motion.
	3. **Abhishek Patil (Qualcomm) presented “CIDs Related to Random Access,” based on the submission 11-17-1276-01.**
		1. Summary
			1. Resolutions for following CIDs related UL OFDMA Random Access are proposed.
6. **Recess for lunch @ 12:07 until 13:15**.
7. **TGax meeting reconvened @ 13:15.**
8. **Presentations**
	1. **Abhishek Patil (Qualcomm) continued his presentation of the submission 11-17-1276-01.**
		1. Discussion
			1. CID 6172: A member is not happy with the resolution for this CID and asked for offline discussion.
			2. CID 6038, 6108 and 7204: Another member commented on the broadcast TWT element. 🡪 Those CIDs are deferred.
			3. Some CIDs are deferred as the result of discussion.
		2. **Straw Poll: Do you agree to resolutions to CIDs; 8172, 5023, 10016, 8389, 7409, 7425, 6139, 5860, 6711, 6712, 6008, 5676, 7419, 9956, 9578, 5740, 5738, 5508, 9740, 4787, 6039, 8288, 9741, 9957, 6043, 9742, 10295, 4788, 7422 in doc 11-17-1276r1?**
			1. **Result: No objection on the above CIDs.**
	2. **Chao-Chun Wang (MediaTek) presented “11ax D1.0 MAC Comment Resolution for,” based on the submission 11-17-1010-02.**
		1. Summary
			1. Resolutions for comments on Quiet Period are proposed.
			2. Relevant CIDs: 3041, 3129, 6469, 6470, 8204, 3043, 3045, 5341, 4644, 5069, 5340, 5770, 5771, 5952, 5950, 3044, 5951, 7563, 5845, 8205, 5846, 6471, 6473, 7777, 8203, 8206, 9112 (27 CIDs)
		2. Discussion
			1. Chair commented that “counter” is not a resolution. The resolution should be “Accepted,” “Rejected,” or “Revised.”
		3. **Straw Poll: Do you agree to resolutions of CIDs; 3041, 3129, 6469, 6470, 8204, 3043, 3045, 5341, 4644, 5069, 5340, 5770, 5771, 5952, 5950, 3044, 5951, 7563, 5845, 8205, 5846, 6471, 6473, 7777, 8203, 8206, 9112 (27 CIDs) in doc 11-17/1010r2?**
			1. **Result: No objection.**
			2. **Note – There are some editorial works that a member will work with.**
	3. **Chao-Chun Wang (MediaTek) presented “11ax D1.0 MAC Comment Resolution for,” based on the submission 11-17-1009-02.**
		1. Summary
			1. Resolutions for comments on Quiet Period are proposed.
			2. Relevant CIDs:
		2. Discussion
			1. Need to change some resolution.
		3. **Straw Poll: Do you accept resolutions to CIDs; CIDs: 5068, 6048 ,6804 ,6805 ,6807, 6814 ,6815 ,5230 ,6816 ,8243 ,8421 ,8422 ,8244 ,8245 ,8289 ,8622 ,9593, 5952 (18 CIDs) in Doc 11-17/1009r1?**
			1. **Result: No objection.**
			2. **Some editorial works still pending.**
9. **Recess for break @ 15:33.**

**<break>**

1. **TGax meeting reconvened @ 15:48.**
2. **CR Presentations**
	1. **Alfred Asterjadhi (Qualcomm) presented “Misc for Trigger frame format,” based on the submission 11-17-1264-02.**
		1. Summary
			1. Resolutions for following CIDs are proposed:
			2. Relevant CIDs: 3012, 3013, 3014, 3117, 3164, 3168, 3170, 3172, 3173, 4988, 5012, 5129, 5132, 5158, 5319, 5757, 5826, 5955, 5956, 6081, 6151, 6323, 6325, 6326, 6327, 7261, 7263, 7485, 7486, 7488,
		2. Discussion
			1. A member asked if the comment during a conference call pointing out that there are some mismatch between PHY and MAC spec were fixed. 🡪 The answer was yes.
			2. A member commented on the GCR MU BAR.
		3. Next Step
			1. This submission will be revisited during the next week.
	2. **Alfred Asterjadhi (Qualcomm) presented “Misc for HE Operation IE,” based on the submission 11-17-1263-02.**
		1. Summary
			1. Resolutions for the 12 CIDs related to HE Operation element are proposed.
				1. Relevant CIDs: 4773, 5552, 5553, 5554, 5555, 5556 7382, 7774, 7870, 8355, 9664, and 9665.
		2. Discussion
			1. TXOP duration-based RTS: A member asked for the change of name of a function. 🡪 It was done in another submission.
		3. **Straw Poll: Do you agree to resolutions to CIDs 4773, 5552, 5553, 5554, 5555, 5556 7382, 7774, 7870, 8355, 9664, 9665 in doc 11-17/1263r2?**
			1. **Result: No objection.**
	3. **Alfred Asterjadhi (Qualcomm) presented “Miscellaneous for HE sounding,” based on the submission 11-17-1262-00.**
		1. Summary
			1. Resolutions for following CIDs related HE sounding procedure are proposed.
				1. Relevant CIDs: 3303, 3304, 3305, 3306, 5193, 5194, 5195, 5367, 5368, 5812, 6010, 6011, 6012, 6104, 6732, 6733, 7111, 7637, 7638, 7639, 7640, 7641, 7818, 7819, 8222, 8503, 8504, 8588, 8709, 8710, 8711, 8712, 8713, 8716, 9224, 9225, 9300, 9301, 9302, 9304, 9305, 9536, 9720, 9923, 9924, 9925, 9926, 9927, 9928, 9929, 10151, 10152, 10153, 10156, 10160, and 8066.
		2. Discussion
			1. “SIFS” is missing between NE NDPA and NDP in the updated figure. 🡪 The editor can take care of it.
			2. There was a discussion on the behavior of a 20 MHz only STA being asked for 80 MHz channel feedback. 🡪 Alfred to check it. CID 9925 was deferred.
			3. Functions that a MU beamformer needs to support are discussed.
			4. Another member commented about the retransmission unit.
		3. **Straw Poll: Do you agree to resolutions to CIDs 3303, 3304, 3305, 3306, 5193, 5194, 5195, 5367, 5368, 5812, 6010, 6011, 6012, 6104, 6732, 6733, 7111, 7637, 7638, 7639, 7640, 7641, 7818, 7819, 8222, 8503, 8504, 8588, 8709, 8710, 8711, 8712, 8713, 8716, 9224, 9225, 9300, 9301, 9302, 9304, 9305, 9536, 9720, 9923, 9924, 9926, 9927, 9928, 9929, 10151, 10152, 10153, 10156, 10160, 8066 in doc 11-16/1262r1?**
			1. **Result: No objection.**
			2. **Note 1: 7641, 8503, 8504, 9720 – add a condition according to Liwen’s comment.**
			3. **Note 2: Comments on 20 MHz only STA handling 80 MHz NDP - Will come back to this document later.**
	4. **Jeongki Kim (LG Electronics) presented “CR on CID 6053,” based on the submission 11-17-1060-03.**
		1. Summary
			1. Resolutions for CIDs 6053 and 6042 are proposed.
			2. An AID12 value of 2045 is proposed to indicate the random access RU.
		2. Discussion
			1. A member asked for the benefit of having this spec.
			2. Another member expressed a concern that the value of the No RA RU using the reserved bit.
			3. There will be a related submission by another member.
		3. Next Step
			1. R4 was presented. No agreement yet.
			2. Need more discussion with members.
	5. **Jeongki Kim (LG Electronics) presented “CR on 27.14.2,” based on the submission 11-17-1351-01.**
		1. Summary
			1. Resolutions for CIDs 6040, 7420, 7421, 7601 relate to clause 27.14.2 (Power Save with UORA) are proposed.
		2. Discussion
			1. The resolution for the CID 7601 should be “Rejected.” 🡪 Jeongki to update the document.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 6040, 7420, 7421, 7601 in doc 11-17/1351r2?**
			1. **Result: No objection.**
3. **AoB**
4. **Recess until 9:00 AM tomorrow morning @ 17:56 until 9:00 AM tomorrow morning.**

**Thursday, September 7th, 2017 (9:00-18:00)**

1. The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chair of the TGax, @10:00
2. **Agenda Setting**
	1. Agenda Doc.11-17/1251r1 on the server..
		1. Agenda for Thursday, September 7th 2017 – detailed agenda is on slide 26 of 17/1251r2.
			1. 9:00 – 10:30
				1. Call the meeting to order
				2. Reminder - IPR policies and procedures.
				3. Comment Resolution
			2. 10:30 – 10:45 Break
			3. 10:45 – 12:00 Comment Resolution
			4. 12:00 – 13:00 Lunch break
			5. 13:00 – 15:30 Comment Resolution
			6. 15:30 – 15:45 Break
			7. 15:45 – 18:00 Comment Resolution
			8. 18:00 Recess
3. **Reminder**
	1. **Chair reminded that we are still operating under the IEEE-SA and IEEE 802 p**olicies and procedures.
4. **Progress Review**
	1. Abhi (17/1275r4): No objection for the resolutions. A member has a point on the setting of AID, an issue that needs to be considered by the TG – not related to this submission.
	2. Abhi (17/1278r1): No objection.
	3. Abhi (17/1276r1): Resolutions for 29 out of 42 CIDs are accepted.
	4. Chao-Chun (17/1010r2): Resolutions for 27 CIDs are accepted.
	5. Chao-Chun (17/1009r1): Resolutions for 18 CIDs are accepted.
	6. Alfred (17/1264): Document to be revisited.
	7. Alfred (17/1263r2): Resolutions for 12 CIDs are accepted.
	8. Alfred (17/1262r1): Resolutions for 55 CIDs are accepted. Robert’s comments on 20 MHz only STA handling 80 MHz NDP Will come back to this document later.
	9. Jeongki (17/1060): Wait for Chitto for feedback. Raja concern about the value of the No RA RU using the reserved bit.
	10. Jeongki (17/1351r2): Resolutions for 4 CIDs are accepted.
5. **Presentation**
	1. **Zhou LAN (Broadcom Ltd.) presented “**CR of DL MU procedure**,” based on the submission 11-17-1286-00.**
		1. Summary
			1. Resolutions for following CIDs related to DL MU procedure are proposed.
				1. Relevant CIDs: 3223, 3224, 4797, 4798, 4799, 4801, 4802, 4803, 4804, 5179, 5180, 5181, 5182, 5698, 5699, 5700, 5701, 5780, 5808, 5943, 5944, 5945, 5980, 5981, 5982, 6099, 6163, 6164, 6165, 7089, 7226, 7385, 7571, 7572, 7642, 7643, 7647, 7688, 7689, 7807, 7808, 8053, 8167, 8168, 8217, 8255, 8270, 8294, 8495, 8496, 8497, 8593, 8696, 8697, 8698, 8699, 9290, 9398, 9454, 9457, 9466, 9467, 9468, 9526, 9587, 9704,. 9705, 9706, 9889, 9890, 9891, 9892, 9893, 10316
		2. Discussion
			1. CIDs 4802 and 4803: More discussion needed.
			2. CID 5698: Resolution is changed from “Accepted” to “Revised”.
			3. CID 5808: A member has a counter proposal.
			4. CID 5944: Resolution is updated.
			5. CID 5945: It is already covered.
			6. CID 7089: Proposed text for subclause 3.2 is discussed.
		3. Next Step
			1. This submission will be revisited during next week.
6. **Recess for 15 minutes**

**<break>**

1. **Meeting Reconvened @ 10:40 AM**
2. **CR Presentations**
	1. **Zhou Lan (Broadcom Ltd.) continued his presentation of 11-17-0925-10.**
		1. Discussion
			1. CID 7647 was deferred since it needs more discussion.
			2. Some more CIDs are deferred for more discussions.
		2. Next Step
			1. This document will be revisited during next week.
	2. **Huizhao Wang (Quanenna Communications) presented “LB225 11ax D1.0 Comment Resolution 10.3.x,” based on the submission 11-17-1276-01.**
		1. Summary
			1. Resolutions for following CIDs related to subclause 10.3.x (DCF) are proposed.
				1. Relevant CIDs: 3136, 4834, 5159, 5161, 5162, ~~5163,~~ 5557, 5560, 5568, 6514, 6515, 7530, 7779, 7781, 7872, 7873, 8208, 8209, 8349, 8350, 8451, 9422, 9686.
		2. Discussion
			1. CID 5163: another member is taking care of it.
			2. There was a comment that the proposed changes in this document are similar to the proposals from another member. 🡪 There are some differences.
		3. Next Step
			1. Huizhao to check the proposed changes with Alfred.
	3. **Liwen Chu (Marvell Semiconductors) presented “LB225 11ax D1.0 Comment Resolution OMI and Operating Mode,” based on the submission 11-17-1067-04.**
		1. Summary
			1. A resolution for the CID 7167 related to Operating Mode Indication (OMI) is proposed.
				1. The NSS behavior was modified to be consistent with the HE Capabilities.
				2. Related text in subclauses 27.16 (HE BSS operation), 9.4.1.53 (Operating mode field), 9.4.2.4.6.3 (Operating Mode (OM) Control), 27.15.4.1 (Rx Supported HE-MCS and NSS Set), and 27.15.4.4 (Rx Supported VHT-MCS and NSS Set) are modified.
				3. Text for a new subclause 27.x.x (**HE STA in non-HE BSS) is provided.**
		2. Discussion – No discussion.

* + 1. **Straw Poll: Do you agree to the resolution to the CID 7167 in 11-17/1067r4?.**
			1. **Result: No objection**
	1. **Ming Gan (Huawei Technologies) presented “Resolutions for CIDs on Subclause-27.3.3-Part 2,” based on the submission 11-17-1362-00.**
		1. Summary
			1. Resolutions for the following CIDs related to subclause 27.3.3 (Defragmentation) are proposed.
				1. Relevant CIDs: 7658, 8445, 8447, 8446, 5473, 5474, 8448, 7540, 7541, 5801, 8458 (11 CIDs).
		2. Discussion – No discussion.

* + 1. **Straw Poll: Do you agree to the resolutions to the CIDs 7658, 8445, 8447, 8446, 5473, 5474, 8448, 7540, 7541, 5801, 8458 (11 CIDs) in 11-17/1362r0?.**
			1. **Result: No objection**
1. **Recess for lunch @ 12:02**.
2. **TGax ad hoc meeting reconvened @ 13:00.**
3. **Presentations**
	1. **Liwen Chu (Marvell Semiconductors) presented “LB225 11ax D1.0 Comment Resolution HE MAC Capabilities,” based on the submission 11-17-1285-01.**
		1. Summary
			1. Resolutions for following CIDs related to HE MAC Capabilities are proposed.
				1. Relevant CIDs: 3124, 4768, 8671, 8672, 3126, 3176, 3271, 3275, 3278, 3284, 4560, 4586, 4588, 4593, 4605, 4609, 4618, 4619, 4623, 4627, 4628, 4633, 4636, 4639, 4648, 4654, 4658, 5136, 5137, 5138, 5760, 5838, 5839, 5840, 6063, 6091, 6390, 6396, 6406, 6409, 7056, 7370, 7372, 7408, 7536, 7554, 7555, 7556, 7761, 7764, 7766, 7767, 8041, 8119, 8120, 8121, 8388, 8399, 8429, 8431, 8514, 9507, 9668, 9669, 9670, 9671, ~~9672, 10073~~.
		2. Discussion
			1. Based on a comment from a member, text was updated and the document now is rev. 2..
		3. **Straw Poll: Do you accept resolutions to CIDs; 3124, 4768, 8671, 8672, 3126, 3176, 3271, 3275, 3278, 3284, 4560, 4586, 4588, 4593, 4605, 4609, 4618, 4619, 4623, 4627, 4628, 4633, 4636, 4639, 4648, 4654, 4658, 5136, 5137, 5138, 5760, 5838, 5839, 5840, 6063, 6091, 6390, 6396, 6406, 6409, 7056, 7370, 7372, 7408, 7536, 7554, 7555, 7556, 7761, 7764, 7766, 7767, 8041, 8119, 8120, 8121, 8388, 8399, 8429, 8431, 8514, 9507, 9668, 9669, and 9670, 9671~~, 9672, 10073~~ in doc. 11-17/1285r2?**
			1. **Result: No objection.**
			2. **Note – CID 9671 is handled in another submission.**
	2. **Matthew Fischer (Broadcom Ltd.) presented “CR TWT IE,” based on the submission 11-17-0777-07.**
		1. Summary
			1. Resolutions for comments on Quiet Period are proposed.
			2. Relevant CIDs: 3041, 3129, 6469, 6470, 8204, 3043, 3045, 5341, 4644, 5069, 5340, 5770, 5771, 5952, 5950, 3044, 5951, 7563, 5845, 8205, 5846, 6471, 6473, 7777, 8203, 8206, 9112 (27 CIDs)
		2. Discussion
			1. Chair commented that “counter” is not a resolution. The resolution should be “Accepted,” “Rejected,” or “Revised.”
		3. Next Step
			1. There are some editorial works that a member will work with.
			2. Chair asked if there is any objection to the resolutions? 🡪 No objection.
	3. **Chao-Chun Wang (MediaTek) presented “11ax D1.0 MAC Comment Resolution for,” based on the submission 11-17-1009-02.**
		1. Summary
			1. Resolutions for comments on Quiet Period are proposed.
			2. Relevant CIDs:
		2. Discussion
			1. People discussed the contents of a table in clause 9.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 3031 3123 4765 4766 5034 5673 5759 5765 5766 5767 5768 5769,**

**5832 5833 5834 5835 5836 5892 5959**

**6049 6051 6089 6350 6351 6352 6353 6354 6355 6363**

**7170 7184 7208 7358 7359 7360 7361 7362 7551 7598 7599 7600**

**7922 7923 7924 7925 7926 7927 7928 7929 7930**

**8123 8124 8127 8131 8144 8196 8197**

**8200 8591 9843 9971**

**in doc 11-17/0777r8?**

* + - 1. **Result: No objection.**
			2. **Note – No CID to address changes to #4 in r7. Text was deleted in r8.**
	1. **Jarkko Kneckt (Apple) presented “Comment Resolution on TIM Broadcast,” based on the submission 11-17-0811-03.**
		1. Summary
			1. Resolutions for the CIDs 5973 and 9870 related to TIM Broadcast are proposed.
			2. Text in subclause 11.2.2.17 (TIM Broadcast) is updated.
		2. Discussion
			1. No discussion.
		3. **Straw Poll: Do you agree to resolutions to CIDs 5973 and 9870 in doc 11-17/0811r3?**
			1. **Result: No objection.**
	2. **Ming Gan (Huawei Technologies) presented “Resolutions for CIDs on Subclause-27.3.3-Part 3,” based on the submission 11-17-1363-00.**
		1. Summary
			1. Resolutions for following CIDs related to 27.3.3 (Defragmentation) are proposed.
				1. Relevant CIDs: 8449, 8453, 8547, 8452, 8450, 8451, 6603, 5929, 7139, 8439, 8440, 8441, 8436, 5469, 6991, 6992, 7798,6993, 8149, 8437, 8438, and 9401 (22 CIDs).
		2. Discussion
			1. A member commented about the text for 27.3.1 (General).
		3. **Straw Poll: Do you agree to resolutions to CIDs 8449, 8453, 8547, 8452, 8450, 8451, 6603, 5929, 7139, 8439, 8440, 8441, 8436, 5469, 6991, 6992, 7798, 6993, 8149, 8437, 8438, and 9401 (22 CIDs) in doc 11-17/1363r0?**
			1. **Result: No objection.**
	3. **Yongho Seok (MediaTek) presented “LB225 CR CID 8358 and 9377,” based on the submission 11-17-1313-00.**
		1. Summary
			1. Resolutions for the CIDs 8358 and 9377 related to PHY-CCA.indication and GCR MU BAR, respectively, are proposed.
		2. Discussion
			1. Re: PHY-CCA.indication, a member asked for a question which 20 MHz channel is reported. 🡪 It is discussed in another document (17/209r2).
			2. Re: GCR MU BAR, there was a comment about a related submission (17/384r2).
		3. **Straw Poll: Do you agree to resolutions to CIDs 8449, 8453, 8547, 8452, 8450, 8451, 6603, 5929, 7139, 8439, 8440, 8441, 8436, 5469, 6991, 6992, 7798, 6993, 8149, 8437, 8438, and 9401 (22 CIDs) in doc 11-17/1363r0?**
			1. **Result: No objection.**
	4. **Yongho Seok (MediaTek) presented “LB225 CR 10.22.2.11 CID 5374,” based on the submission 11-17-1270-00.**
		1. Summary
			1. A resolution for the CID 5374 related to parameters for EDCA and UORA is proposed.
		2. Discussion
			1. It was confirmed that this resolution is consistent with resolution for CID 9854 discussed in July 2017 session.
		3. **Straw Poll: Do you agree to resolutions to CID 5374 in doc 11-17/1270r0?**
			1. **Result: No objection.**
	5. **Yongho Seok (MediaTek) presented “**LB225 CR 9.7.3 CID 9389**,” based on the submission 11-17-1271-00.**
		1. Summary
			1. A resolution for the CID 9389 related to subclause 9.7.3 (A-MPDU contents) is proposed.
		2. Discussion
			1. People discussed about the level of support for ACK-enabled Multi-TID A-MPDU..
		3. Next Step
			1. Yongho to have more offline discussion with members.
	6. **Yongho Seok (MediaTek) presented “**LB225 CR 10.22.2.11 CID 5374**,” based on the submission 11-17-1270-00.**
		1. Summary
			1. A resolution for the CID 5374 related to parameters for EDCA and UORA is proposed.
		2. Discussion
			1. It was confirmed that this resolution is consistent with resolution for CID 9854 discussed in July 2017 session.
		3. **Straw Poll: Do you agree to resolutions to CID 5374 in doc 11-17/1270r0?**
			1. **Result: No objection conditioned on adding the MIB variable.**
			2. **A member requested a review with – need for discussion.**
1. **AoB**
2. **Recess @ 17:51 until 9:00 AM tomorrow morning 9:00 AM.**

**Friday, September 8th, 2017, TGax non-PHY Ad Hoc Sessions (9:00-17:00)**

1. The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chair of the TGax, @10:00
2. **Agenda Setting**
	1. Agenda Doc.11-17/1251r3 on the server..
		1. Agenda for Friday, September 8th 2017 – detailed agenda is on slide 39 of 17/1251r4.
			1. 9:00 – 10:30:
				1. Call meeting to order
				2. IPR policy and procedure, etc.
				3. Announcements
				4. Summary from yesterday
				5. Comment Resolution
			2. 10:30 – 10:45 Break
			3. 10:45 – 12:00 Comment Resolution
			4. 12:00 – 13:00 Lunch
			5. 13:00 – 15:00 Comment Resolution
			6. 15:00 – 15:15 Break
			7. 15:15 – 17:00 Comment Resolution
			8. 17:00 Adjourn
3. **Reminder.**
	1. Chair reminded that we are still operating under the IEEE-SA and IEEE 802 policies and procedures.
	2. Chair asked people to state name and affiliation when speaking for the first time in the session.
	3. Chair also asked people to put cell phone mute.
4. **Progress Review**
	1. Zhou Lan (11-17/1286): Some CIDs need more offline discussions. To be revisited during next week.
	2. Huizhao Wang (11-17/0925): basically agreed. Consistency with another submission needs to be checked.
	3. Liwen Chu (11-17/1067): No objection.
	4. Ming Gan (11-17/1362): No objection.
	5. Liwen Chu (11-17/1285): No objection. 9671 is handled in another submission.
	6. Matthew Fischer (11-17/0777): No objection.
	7. Jarkko Kneckt (11-17/0811): No objection.
	8. Ming Gan (11-17/1363): No objection.
	9. Yongho Seok (11-17/1272): No objection.
	10. Yongho Seok (11-17/1271): Need more discussion. To be revisited next week.
	11. Yongho Seok (11-17/1270): No objection conditioned on adding the MIB variable. A member requested a review with – need for discussion.
5. **Presentations**
	1. **Laurent Cariou (Intel) presented “CR for 27.3.1,” based on the submission 11-17-1335-01.**
		1. Summary
			1. Resolutions for following CIDs related to HE Fragmentation are proposed.
				1. Relevant CIDs: 6994, 6598, 6983, 6984, 7796, 8434, 6599, 7797, 6600, 6986, 6987, 9413, 5410, 9399, 8435, 6988 and 6990.
		2. Discussion
			1. No comment during the ad hoc.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 6994, 6598, 6983, 6984, 6986, 6600, 7797, 6599, 8434, 7796, 6987, 9413, 5410, 9399, 6989, 8435, 6988, 6990 in doc 11-17/1335r1?**
			1. **Result: No objection.**
	2. **Laurent Cariou (Intel) presented “CR for 9.4.2.240,” based on the submission 11-17-1336-00.**
		1. Summary
			1. Resolutions for CIDs 5336, 5337, 5338, and 6940 related to subclause 9.4.2.240 (MU EDCA Parameter Set element) are proposed.
		2. Discussion
			1. No discussion.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 5336, 337, 5338, 6940 in doc 11-17/1336r0?**
			1. **Result: No objection.**
	3. **Liwen Chu (Marvell Semiconductors) presented “LB225 11ax D1.0 Comment Resolution 27.10.4 Part 1,” based on the submission 11-17-0553-07.**
		1. Summary
			1. Resolutions for the following CIDs related to subclause 27.10.4 (Multi-TID A-MPDU) are proposed.
				1. Relevant CIDs: 6187, 6183, 7605, 4793, 5402, 9392, 9393, 10332, 8136, 8135, 7947, 7944, 7943, 7942, 7941, 7940, 7949, 7950, 7948, 7962, 7863, 7864, 8401, 8393, 9672, and 9671.
		2. Discussion
			1. A member suggested changes to some parts of the text in this submission. 🡪 Updated.
		3. **Straw Poll: you agree to resolutions to CIDs; 6187, 6183, 7605, 4793, 5402, 9392, 9393, 10332, 8136, 8135, 7947, 7944, 7943, 7942, 7941, 7940, 7949, 7950, 7948, 7962, 7863, 7864, 8401, 8393, 9672, 9671 in doc 11-17/0553r8?**
			1. **Result: No objection.**
	4. **Chao-Chun Wang (MediaTek) presented “11ax D1.0 MAC Comment Resolution for,” based on the submission 11-17-1011-01.**
		1. Summary
			1. Resolutions for four CIDs 3050, 5847, 7384, 8315 related to Quiet Time Period are proposed.
		2. Discussion
			1. No discussion.
		3. **Straw Poll: Do you agree to resolutions to CIDs; 3050, 5847, 7384, 8315 in doc 11-17/1011r1?**
			1. **Result: No objection**
	5. **Chao-Chun Wang (MediaTek) presented “11ax D1.0 MAC Comment Resolution for,” based on the submission 11-17-1034-01.**
		1. Summary
			1. Resolutions for CIDs 4781, 6982 and 8210 related to Quiet Time Period are proposed.
			2. No change is needed.
		2. Discussion – No discussion
		3. **Straw Poll: Do you agree to resolutions to CIDs 4781, 6982, and 8210 in doc 11-17/1034r1?**
			1. **Result: No objection.**
	6. **Kiseon Ryu (LG electronics) presented “CR for 10.3.2.10,” based on the submission 11-17-1317-01.**
		1. Summary
			1. Resolutions for the following CIDs related to subclause 10.3.2.10 (MU acknowledgment procedure) are proposed.
				1. Relevant CIDs: 3183, 3184, 4836, 4837, 4838, 5762, 6171, 6172, 6503, 7498, 7664, 8386, 8412, 9471, 9853
		2. Discussion
			1. No discussion.
		3. **Straw Poll: Do you agree to resolutions to CIDs 3183, 3184, 4836, 4837, 4838, 5762, 6171, 6172, 6503, 7498, 7664, 8386, 8412, 9471, 9853 in doc 11-17/1317r1?**
			1. **Result: No objection.**
	7. **Frank Hsu (MediaTek) presented “11ax D1.0 MAC Comment Resolution for 27.13 and 9.4.2.218.2,” based on the submission 11-17-1377-01.**
		1. Summary
			1. Resolutions for the following CIDs related to subclauses 27.13 (Link Adaptation using the HLA control field) and 9.4.2.218.2 (HE MAC Capabilities element) are proposed.
		2. Discussion
			1. A member commented on the feedback mechanism. 🡪 Need more offline discussion.
		3. Next Step
			1. Need review by the PHY experts.
			2. To be revisited next week.
	8. **Po-Kai Huang (Intel) presented “11ax D1.4 MAC Comment Resolution for CID 9636, 9699,” based on the submission 11-17-1301-01.**
		1. Summary
			1. Resolutions for CIDs 9639 and 9699 related to Two NAVs are proposed.
			2. Texts for 27.2.3 and 27.5.2.4 are provided..
		2. Discussion
			1. A member mentioned that the proposed text is not consistent with other part of the spec.
		3. Next Step
			1. Need offline discussion.
	9. **Jeongki Kim (LG Electronics) presented “CR on CID 6053,” based on the submission 11-17-1060-04.**
		1. Summary
			1. This is an update incorporating the result of discussion after the presentation yesterday.
		2. Discussion
			1. People discussed the condition of HE STA to enter doze state.
			2. People also discussed the meaning of allowing power save for unassociated STAs.
		3. Next Step
			1. Need more offline discussion.
6. **Recess for lunch @ 12:00**.

Break

1. **TGax meeting reconvened @ 13:00.**
2. **Presentations**
	1. **Matthew Fischer (Broadcom Ltd.) presented “CR QOS SF,” based on the submission 11-17-1135-01.**
		1. Summary
			1. Resolutions for CIDs 8427 and 7710 related to the scaling factor using QoS Control field are proposed.
		2. Discussion
			1. Both CIDs are already resolved in other submissions. 🡪 This submission proposes modification to the proposed text related to those CIDs.
			2. A member suggested some minor edits.
		3. Next Step
			1. Some more edit expected.
	2. **Liwen Chu (Marvell Semiconductors) presented “CR 27.10.2, 27.10.3,” based on the submission 11-17-1267-02.**
		1. Summary
			1. Resolutions for the following CIDs related to 27.10 (A-MPDU operation and A-MPDU padding) are proposed.
		2. Discussion
			1. Chair suggested correction to the document number. 🡪 To be updated to r3.
		3. Straw Poll: Do **you agree to resolutions to CIDs; 3185, 4755, 7783, 7784, 7785, 9559 in doc 11-17/1267r3?**
			1. Result: No objection.
	3. **Kaiying Lv (ZTE) presented “Proposed resolutions for CIDs for 27.2.1,” based on the submission 11-17-0389-08.**
		1. Summary
			1. Resolutions for the following CIDs related to subclause 27.2.1 (Intra-BSS and Inter-BSS frame detection) are proposed.
				1. Relevant CIDs: 3056, 3189, 3190, 5167, 5168, 5394, 5454, 5456, 5686, 5779, 5799, 6058, 6059, 6152, 6176, 6574, 6575, 6576, 6577, 6578, 6579, 6580, 6581, 6582, 6583, 7022, 7071, 7232, 7659, 8358, 8693, 9380, 9519, 9520, 9585, 9727, 9739, 9747, 9872, 9873, 10007, 10171, 10241, 10242, 10243, 10244, 5453, 7162, and 9438.
		2. Discussion
			1. A member suggested use of “should” for optional features.
			2. Another member commented on the intra-BSS and inter-BSS classification.
		3. **Straw Poll: Do you agree to resolutions to CIDs 3056, 3189, 3190, 5167, 5168, 5394, 5454, 5456, 5686, 5779, 5799, 6058, 6059, 6152, 6176, 6574, 6575, 6576, 6577, 6578, 6579, 6580, 6581, 6582, 6583, 7022, 7071, 7232, 7659, 8358, 8693, 9380, 9519, 9520, 9585, 9727, 9739, 9747, 9872, 9873, 10007, 10171, 10241, 10242, 10243, 10244, 5453, 7162, 9438 in doc 0389r8?**
			1. **Result: No objection.**
	4. **Abhishek Patil (Qualcomm) presented “CIDs related to Random Access,” based on the submission 11-17-1276-03.**
		1. Summary
			1. This is an update from the presentation on Wednesday.
		2. Discussion
			1. PS mode for unassociated STA was discussed again. 🡪 It will be good to removed related text until we come to an agreement.
		3. Next Step
			1. More offline discussion needed.
3. **Recess for break @ 14:45.**

**<break>**

1. **TGax meeting reconvened @ 15:00.**
2. **Comment Resolution**
	1. **Alfred Asterjadhi (Qualcomm) presented “CIDs 8348 and 6433,” based on the submission 11-17-1342-00.**
		1. Summary
			1. Resolutions for CIDs 8348 and 6433 related to are proposed.
			2. Both comments have already been resolved. No need to change the draft.
		2. Discussion
			1. No discussion
		3. **Straw Poll: Do you agree to resolutions to CIDs 8348 and 6433 in doc 11-17/1342r1?**
			1. **Result: No objection.**
	2. **Liwen Chu (Marvell) presented “Comment Resolution 27.11.1, 27.11.2,” based on the submission 11-17-1282-02.**
		1. Summary
			1. Resolutions for CIDs 3083, 8724, 8725, 5735 and 9316 related to TXVECTOR parameter are proposed.
		2. Discussion
			1. Re: CID 8724 – Related text was updated considering a comment from a member. 🡪 To be r3.
			2. Re: CID 5735 – A member discussed ER related conditions. 🡪 CID 5735 was deferred until the discussion comes to a conclusion.
		3. **Straw Poll: Do you agree to the resolutions for CIDs 3083, 8725 and 9316 in doc 11-17/1282r3**
			1. **Result: No objection.**
3. **AoB**
	1. **No other submission.**
4. **TGax July 2017 ad hoc adjourned @ 15:30.**

<List of attendees>

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| --- | --- |
| Osama Aboulmagd | Huawei Technologies Co. Ltd |
| Alfred Asterjadhi | Qualcomm Incorporated |
| Pascal VIGER | Canon Research Centre France |
| Julien Sevin | Canon Research Centre France |
| Yaron Alpert | Intel Corporation |
| Guoqing Li | Apple, Inc. |
| Po-Kai Huang | Intel Corporation |
| Minyoung Park | Samsung Semiconductor Inc. |
| Jarkko Kneckt | Apple, Inc. |
| Chunyu Hu | Broadcom Corporation |
| Chao Chun Wang | MediaTek Inc. |
| Laurent Cariou | Intel Corporation |
| Yongho Seok | MediaTek Inc. |
| Albert Petrick | InterDigital |
| Yasuhiko Inoue | Nippon Telegraph and Telephone Corporation (NTT) |
| Ming Gan | Huawei Technologies Co. Ltd |
| John Coffey | Realtek Semiconductor Corp. |
| Suhwook Kim | LG ELECTRONICS |
| Xun Yang | Huawei Technologies Co. Ltd |
| Yunbo Li | Huawei Technologies Co. Ltd |
| Huizhao Wang | Quantenna Communications, Inc. |
| Jeongki Kim | LG ELECTRONICS |
| Raja Banerjea | Qualcomm Incorporated |
| Kiseon Ryu | LG ELECTRONICS |
| Yusuke Tanaka | Sony Corporation |
| kaiying Lv | ZTE Corporation |
| Robert Stacey | Intel Corporation |
| Qiang Guo | Huawei R&D USA |
| Chien-Fang Hsu | MediaTek Inc. |
| Zhou Lan | Broadcom Corporation |
| James Yee | MediaTek Inc. |
| Matthew Fischer | Broadcom Corporation |
| Chittabrata Ghosh | Intel Corporation |
| Zhiyong Huang | LitePoint Corporation/Teradyne |
| Hongyuan Zhang | Marvell Semiconductor, Inc. |
| Jinjing Jiang | Marvell Semiconductor, Inc. |
| Abhishek Patil | Qualcomm Incorporated |