IEEE P802.11
Wireless LANs

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| IEEE 802.11TGax CRC Teleconferences Minutes August 2020 |
| Date: 2020-08-07 |
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Abstract

This document contains the minutes from the TGax teleconferences August 2020.

Revision History:

* R0: Initial version.
	+ Minutes of TGax CRC call on August 4th and 6th, 2020.

**Tuesday, August 4th, 2020, TGax CRC Teleconference (17:00 - 19:00 ET)**

1. **The meeting called to order at 17:02 (ET) by Osama Aboul-Magd (Huawei Technologies), the chairperson of 802.11 TGax.**
	1. Introduction of TGax chairperson and secretary.
	2. The agenda document doc.11-20/1169r0 is the working document.
2. **Attendees**
	1. Aboul-Magd, Osama (Huawei Technologies)
	2. Asterjadhi, Alfred (Qualcomm)
	3. Au, Kwok Shum (Huawei Technologies)
	4. Cariou, Laurent (Intel)
	5. Chen, Xiaogang (Intel)
	6. Cherian, George (Qualcomm)
	7. Derham, Thomas (Broadcom)
	8. Fischer, Matthew (Broadcom)
	9. Hunag, Po-Kai (Intel)
	10. Inoue, Yasuhiko (NTT)
	11. Kneckt, Jarkko (Apple)
	12. Qi, Emily (Intel)
	13. Rison, Mark (Samsung)
	14. Rosdahl, Jon (Qualcomm)
	15. Stacey, Robert (Intel)
	16. Yang, Rui (InterDigital)
	17. Yu, Mao (NXP)
3. **Agenda Setting**
	1. Proposed agenda for the TGax CRC teleconference on August 4th, 2020.
		1. Call meeting to order
		2. IEEE-SA IPR policy and Procedure
		3. Attendance Reminder – Please record your attendance on IMAT (imat.ieee.org)
		4. Comment Resolution Status – Robert Stacey
		5. CR Motion
			1. [Doc.11-20-1063](https://mentor.ieee.org/802.11/dcn/20/11-20-1063-00-00ax-sa1-cr-mac-miscellaneous.docx) (by Yongho Seok): CIDs 24402, 24465
			2. [Doc.11-20-0717](https://mentor.ieee.org/802.11/dcn/20/11-20-0717-08-00ax-cr-misc-phy.docx) (by Xiaogang Chen): CIDs 24297, 24307
			3. [Doc.11-20-1121](https://mentor.ieee.org/802.11/dcn/20/11-20-1121-01-00ax-misc-cids.xlsx) (by Laurent Cariou): CIDs 24030, 24165, 24166, 24459
			4. Text Change in [Doc.11-20-0913](https://mentor.ieee.org/802.11/dcn/20/11-20-0913-02-00ax-twt-wide-range.docx)
		6. CR Submissions
			1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0665-05-00ax-comment-resolution-on-mibs-and-pics.docx> - Edward Au - CID 24209
			2. <https://mentor.ieee.org/802.11/dcn/20/11-20-1158-00-00ax-resolutions-for-some-comments-on-11ax-d6-0-sb1.docx> - Mark Rison
		7. AoB
		8. Adjourn
	2. Chair asked if there is any objection to proceed with this agenda.
		1. Discussion – No discussion
		2. **The agenda for TGax CRC teleconference on August 4th, 2020 is approved.**
4. **IEEE 802 and 802.11 IPR policy and procedure**
	1. Patent Policy:
	2. Participants have a duty to inform the IEEE - done.
		* Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
		* Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims
	3. Ways to inform IEEE: - done
		* Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
		* Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
		* Speak up now and respond to this Call for Potentially Essential Patents
		* If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair
		1. Chair asked if anyone in this meeting is aware of any potentially essential patents.
			1. **No potentially essential patent reported.**
	4. Other guidelines for IEEE WG meetings – done
		* All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
			+ Don’t discuss the interpretation, validity, or essentiality of patents/patent claims.
			+ Don’t discuss specific license rates, terms, or conditions.
				- Relative costs of different technical approaches that include relative costs of patent licensing terms January be discussed in standards development meetings.

Technical considerations remain the primary focus

* + - * Don’t discuss or engage in the fixing of product prices, allocation of customers, or division of sales markets.
			* Don’t discuss the status or substance of ongoing or threatened litigation.
			* Don’t be silent if inappropriate topics are discussed … do formally object.
	1. Patent-related information – done
		+ The patent policy and the procedures used to execute that policy are documented in the:
		+ *IEEE-SA Standards Board Bylaws* (http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6)
		+ *IEEE-SA Standards Board Operations Manual* (http://standards.ieee.org/develop/policies/opman/sect6.html#6.3)
		+ Material about the patent policy is available at
		+ [*http://standards.ieee.org/about/sasb/patcom/materials.html*](http://standards.ieee.org/about/sasb/patcom/materials.html)
	2. Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct - done
	3. Participants in the IEEE-SA “individual process” shall act independently of others, including employers - done
	4. IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints - done
1. **Attendance**
	1. <https://imat.ieee.org/>
		1. Please indicate the voter status by adding [V] or [NV] before your name on WebEx.
2. **Motion**
	1. [**Doc.11-20-1063**](https://mentor.ieee.org/802.11/dcn/20/11-20-1063-01-00ax-sa1-cr-mac-miscellaneous.docx)**, “SA1 CR MAC Miscellaneous,” by Yongho Seok (MediaTek)**
		1. Yongho presented the updates from the previous version of doc.11-20-1063.
		2. Discussion
			1. A member is still concerned about the proposed resolution.
		3. Next Step
			1. More offline work.
	2. [**Doc.11-20-0717**](https://mentor.ieee.org/802.11/dcn/20/11-20-0717-09-00ax-cr-misc-phy.docx)**, “CR for MISC. PHY,” by Xiaogang Chen (Intel)**
		1. Xiaogang gave an update on the remaining comment in doc.11-20-717 which is CID 24032.
		2. Discussion
			1. A member mentioned that there should be two logical points of the antenna connectors, i.e., one for Tx and one for Rx. After quick search on the REVmd draft, it turned out that there is no “antenna connectors” in the latest REVmd draft.
			2. Another member asked for more time to check all antenna connector related spec.
		3. Next Step
			1. CID 24032 was deferred again.
	3. [**Doc.11-20-0913**](https://mentor.ieee.org/802.11/dcn/20/11-20-0913-02-00ax-twt-wide-range.docx)**, “Proposal for TWT Wide Range Parameters,” by Laurent Cariou (Intel)**
		1. Laurent gave updates on the proposed text changes contained in doc.11-20-0913.
		2. Discussion
			1. A member commented that a behavior has to be described in an appropriate part.
			2. A member asked for a clarification of the value set in the TWT element.
			3. The group discussed the Broadcast Parameter Set and Individual Parameter Set of the TWT element.
			4. A member expressed a concern the range of value of TWT Wake Interval Mantissa field. Also he proposed a new text for TWT Wake Interval Exponent.
			5. Discussion continued.
		3. Next Step
			1. More offline work will be needed to adopt the proposed changes.
	4. [**Doc.11-20-1121**](https://mentor.ieee.org/802.11/dcn/20/11-20-1121-01-00ax-misc-cids.xlsx)**, “MISC CIDs,” by Laurent Cariou (Intel)**
		1. Laurent gave an update on the resolution for CID 24459.
		2. Discussion
			1. The commenter mentioned there will be more appropriate reason for the rejection, i.e., he is not happy with the proposed resolution.
		3. **CR Motion #1085: Move to accept resolutions to CIDs 24030, 24165, 24166, 24459 in doc 11-20/1121r1.**
			1. **Moved by Laurent Cariou, Seconded by Po-Kai Huang**
			2. **Discussion: A member objected to approve the resolution with unanimous consent.**
			3. **Result: Y/N/A = 8/1/1, motion passes**
3. **Submissions**
	1. **Mark Rison (Samsung) presented “Resolutions for some comments on 11ax/D6.0 (SB1),” based on the submission doc.11-20-1158-00.**
		1. Summary
			1. Resolution for the comments with following CIDs related to the IEEE 802.11ax D6.0 are proposed.
				1. CIDs: 24300, 24301 and 24500.
		2. Discussion
			1. A member asked for more time to review the proposal.
		3. Next Step
			1. There will be a motion to approve the proposed resolution on Thursday.
	2. **Edward Au (Huawei Technologies) presented “Comment resolution on MIBS and PICS,” based on the submission doc.11-20-0665-06.**
		1. Summary
			1. Resolution for the remaining comment with CID 24209 related to the IEEE 802.11ax D6.0 is proposed.
		2. Discussion
			1. Edward would like feedback on the proposed changes related to the CID 24209.
		3. Next Step
			1. There will be a motion to approve the proposed resolution on Thursday.
	3. **George Cherian (Qualcomm) presented “Ack related CRs,” based on the submission doc.11-20-1181-00.**
		1. Summary
			1. Resolutions for the comments with following CIDs related to Ack Procedure defined in the IEEE 802.11ax D6.0 are proposed.
				1. CIDs: 24143, 24227, 24487, 24485.
		2. Discussion
			1. CID 24487: A member requested more time to review the proposal.
			2. CID 24458: There is a similar comment that was resolved in doc.11-20-0917-02. A member would like to remove restriction of 64.
			3. Time is up
		3. Next Step
			1. There will be a motion to approve the proposed resolution on Thursday.
4. **AoB**
	1. No other business.
5. **Adjournment**
	1. TGax CRC teleconference on August 4th, 2020 has adjourned @ 18:59 (ET).

**Thursday, August 6th, 2020, TGax CRC Teleconference (10:00 - 13:00 ET)**

1. **The meeting called to order at 10:05 AM (ET) by Osama Aboul-Magd (Huawei Technologies), the chairperson of 802.11 TGax.**
	1. Introduction of TGax chairperson and secretary.
	2. The agenda document 20/0538r40 is the working document (revision 39 is on the server).
2. **Attendees**
	1. Aboul-Magd, Osama (Huawei Technologies)
	2. An, Song-Haur (Independent)
	3. Asterjadhi, Alfred (Qualcomm)
	4. Au, Kwok Shum (Huawei Technologies)
	5. Chen, Xiaogang (Intel)
	6. Inoue, Yasuhiko (NTT)
	7. Kneckt, Jarkko (Apple)
	8. Nandagopalan, Sai Shankar (Cypress)
	9. Petrick, Albert (InterDigital)
	10. Rison, Mark (Samsung)
	11. Rosdahl, Jon (Qualcomm)
	12. Stacey, Robert (Intel)
	13. Yang, Rui (InterDigital)
	14. Yu, Mao (NXP)
	15. Zhang, Yan (NXP)
3. **Agenda Setting**
	1. Proposed agenda for the TGax CRC teleconference on August 6th, 2020.
		1. Call meeting to order
		2. IEEE-SA IPR policy and Procedure
		3. Attendance Reminder – Please record your attendance on IMAT (imat.ieee.org)
		4. Comment Resolution Status – Robert Stacey
		5. CR Motion
			1. [Doc.11-20-1063](https://mentor.ieee.org/802.11/dcn/20/11-20-1063-00-00ax-sa1-cr-mac-miscellaneous.docx) (by Yongho Seok): CIDs 24402, 24465
			2. [Doc.11-20-0717](https://mentor.ieee.org/802.11/dcn/20/11-20-0717-08-00ax-cr-misc-phy.docx) (by Xiaogang Chen): CIDs 24297, 24307
			3. [Doc.11-20-1121](https://mentor.ieee.org/802.11/dcn/20/11-20-1121-01-00ax-misc-cids.xlsx) (by Laurent Cariou): CIDs 24030, 24165, 24166, 24459
			4. Text Change in [Doc.11-20-0913](https://mentor.ieee.org/802.11/dcn/20/11-20-0913-02-00ax-twt-wide-range.docx)
			5. [Doc.11-20-1158](https://mentor.ieee.org/802.11/dcn/20/11-20-1158-00-00ax-resolutions-for-some-comments-on-11ax-d6-0-sb1.docx) (by Mark Rison): CIDs 24300, 24301, 24500
			6. [Doc.11-20-0665](https://mentor.ieee.org/802.11/dcn/20/11-20-0665-07-00ax-comment-resolution-on-mibs-and-pics.docx) (by Edward Au): CID 24209
		6. AoB
		7. Adjourn
	2. Chair asked if there is any objection to proceed with this agenda.
		1. Discussion – No discussion
		2. **The agenda for TGax CRC teleconference on August 6th, 2020 was approved.**
4. **IEEE 802 and 802.11 IPR policy and procedure**
	1. Patent Policy:
	2. Participants have a duty to inform the IEEE - done.
		* Participants shall inform the IEEE (or cause the IEEE to be informed) of the identity of each holder of any potential Essential Patent Claims of which they are personally aware if the claims are owned or controlled by the participant or the entity the participant is from, employed by, or otherwise represents
		* Participants should inform the IEEE (or cause the IEEE to be informed) of the identity of any other holders of potential Essential Patent Claims
	3. Ways to inform IEEE: - done
		* Cause an LOA to be submitted to the IEEE-SA (patcom@ieee.org); or
		* Provide the chair of this group with the identity of the holder(s) of any and all such claims as soon as possible; or
		* Speak up now and respond to this Call for Potentially Essential Patents
		* If anyone in this meeting is personally aware of the holder of any patent claims that are potentially essential to implementation of the proposed standard(s) under consideration by this group and that are not already the subject of an Accepted Letter of Assurance, please respond at this time by providing relevant information to the WG Chair
		1. Chair asked if anyone in this meeting is aware of any potentially essential patents.
			1. **No potentially essential patent reported.**
	4. Other guidelines for IEEE WG meetings – done
		* All IEEE-SA standards meetings shall be conducted in compliance with all applicable laws, including antitrust and competition laws.
			+ Don’t discuss the interpretation, validity, or essentiality of patents/patent claims.
			+ Don’t discuss specific license rates, terms, or conditions.
				- Relative costs of different technical approaches that include relative costs of patent licensing terms January be discussed in standards development meetings.

Technical considerations remain the primary focus

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			* Don’t discuss the status or substance of ongoing or threatened litigation.
			* Don’t be silent if inappropriate topics are discussed … do formally object.
	1. Patent-related information – done
		+ The patent policy and the procedures used to execute that policy are documented in the:
		+ *IEEE-SA Standards Board Bylaws* (http://standards.ieee.org/develop/policies/bylaws/sect6-7.html#6)
		+ *IEEE-SA Standards Board Operations Manual* (http://standards.ieee.org/develop/policies/opman/sect6.html#6.3)
		+ Material about the patent policy is available at
		+ [*http://standards.ieee.org/about/sasb/patcom/materials.html*](http://standards.ieee.org/about/sasb/patcom/materials.html)
	2. Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct - done
	3. Participants in the IEEE-SA “individual process” shall act independently of others, including employers - done
	4. IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints - done
1. **Attendance**
	1. <https://imat.ieee.org/>
		1. Please indicate the voter status by adding [V] or [NV] before your name on WebEx.
2. **CR Motion**
	1. [**Doc.11-20-1158-00**](https://mentor.ieee.org/802.11/dcn/20/11-20-1158-00-00ax-resolutions-for-some-comments-on-11ax-d6-0-sb1.docx)**, “Resolutions for some comments on 11ax/D6.0 (SB1),” by Mark Rison (Samsung).**
		1. Summary
			1. There no change on doc.11-20-1158-00 since previous presentation (It is still revision 0).
		2. Discussion
			1. A member asked for clarification that there is no technical change. 🡪 The answer was yes. The intension is clarification.
		3. **CR Motion #1068: Move to accept resolutions to CIDs 24300, 24301 and 24500 in doc 11-20/1158r0.**
			1. **Moved by Mark Rison, Seconded by Jarkko Kneckt**
			2. **Discussion – no discussion**
			3. **Result: Approved with unanimous consent.**
	2. [**Doc.11-20-0665-07**](https://mentor.ieee.org/802.11/dcn/20/11-20-0665-07-00ax-comment-resolution-on-mibs-and-pics.docx)**, “Comment resolution on MIBS and PICS,” by Edward Au (Huawei Technologies).**
		1. Summary
			1. Edward gave an updates from the previous version..
		2. Discussion
			1. A member mentioned that he would like to check the requirements for 802.11ax devices and non-802.11ax devices. He asked for some time to check the proposed resolutions.
			2. Chair noticed that some members have different opinions as for the resolution of CID 24209 and asked Edward to trigger email discussion on the reflector.
		3. Next
			1. Doc.11-20-0665 will be revisited next week.
3. **AoB**
	1. The chairperson emphasized that the plan is to complete current round of comment resolution during the next week.
4. **Adjourn**
	1. TGax CRC teleconference on August 6th, 2020 has adjourned @ 10:21 (ET)