IEEE P802.11
Wireless LANs

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| IEEE 802.11Minutes of TGax CRC Teleconference on March 16th and 19th, 2020 |
| Date: 2020-03-26 |
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Abstract

This document contains the minutes from the TGax teleconferences on March 16th and 19th, 2020.

Revision History:

* R0: Initial version.

**Monday, March 16th, 2020, TGax CRC Teleconference (10:00 - 13:00 ET)**

1. **The meeting called to order at 10:03 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 20/0477r0 is on the server.
2. **Attendees**
	1. Osama Aboul-Magd (Huawei Technologies)
	2. Alfred Asterjadhi (Qualcomm)
	3. Stephane Baron (Canon)
	4. Liwen Chu (NXP)
	5. Thomas Derham (Broadcom)
	6. Mark Hamilton (ARRIS-Ruckus)
	7. Lili Hervieu (CableLabs)
	8. Po-Kai Huang (Intel)
	9. Yasuhiko Inoue (NTT)
	10. Srinivas Kandala (Samsung)
	11. Jeongki Kim (LG Electronics)
	12. Youhan Kim (Qualcomm)
	13. Jarkko Kneckt (Apple)
	14. Pooya Monajemi (Cisco)
	15. Abhishek Patil (Qualcomm)
	16. Al Petrick (InterDigital)
	17. Mark Rison (Samsung)
	18. Bo Sun (ZTE)
	19. Pascal Viger (Canon)
	20. Menzo Wentink (Qualcomm)
	21. Alan Zeleznikar (CommScope)
3. **Agenda Setting**
	1. Proposed agenda for the TGax Teleconference on March 16th, 2020.
		1. Call meeting to order
		2. IEEE-SA IPR policy and Procedure
		3. Attendance Reminder – Please send an e-mail to Yasuhiko Inoue (yasu.inoue.h2k5@gmail.com) and/or Osama Aboul-Magd (Osama.aboulmagd@huawei.com)
		4. Motions related to the submission discussed last week
			1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0297-00-00ax-cr-for-7-cids.docx> - Jarkko Kneckt
			2. <https://mentor.ieee.org/802.11/dcn/20/11-20-0369-02-00ax-cr-cid-24054.docx> - Po-Kai Huang
		5. CR Submissions
			1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0352-01-00ax-cr-d6-0-he-phy-service-interface.docx> - Bo Sun
			2. <https://mentor.ieee.org/802.11/dcn/20/11-20-0348-01-00ax-mac-cr-misc-cids-in-clause-3.docx> - Alfred Asterjadhi
			3. <https://mentor.ieee.org/802.11/dcn/20/11-20-0349-00-00ax-mac-cr-misc-cids-in-clause-10.docx> - Alfred Asterjadhi
			4. <https://mentor.ieee.org/802.11/dcn/20/11-20-0315-00-00ax-resolution-for-cids-related-to-multiple-bssid.docx> – Abhishek Patil
			5. <https://mentor.ieee.org/802.11/dcn/20/11-20-0316-00-00ax-resolution-for-cids-related-to-bss-color.docx> – Abhishek Patil
			6. <https://mentor.ieee.org/802.11/dcn/20/11-20-0317-00-00ax-resolution-for-misc-cids.docx> – Abhishek Patil
			7. <https://mentor.ieee.org/802.11/dcn/20/11-20-0318-00-00ax-resolution-for-cids-related-to-uora.docx> – Abhishek Patil
		6. AoB
		7. Adjourn
	2. Chair asked if there is any objection to proceed with this agenda. 🡪 No objection.
		1. **The agenda for the TGax teleconference on March 16th, 2020 is approved.**
4. **Announcements**
	1. Chair asked the attendees to announce name and the affiliation when addressing the group for the first time during a meeting slot.
	2. Attendance: Please send an e-mail to Yasuhiko Inoue (yasu.inoue.h2k5@gmail.com) and/or Osama Aboul-Magd (Osama.aboulmagd@huawei.com)
	3. Chair asked people to put the cellphone mute of switch off.
5. **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
	5. Patent-related information – done
	6. Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct - done
	7. Participants in the IEEE-SA “individual process” shall act independently of others, including employers - done
	8. IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints - done
6. **CR Presentation – Part I**
	1. **Bo Sun (ZTE) presented “Comment Resolutions for 11ax D6.0 HE PHY Service Interface Section,” based on the submission 11-20-0352-01.**
		1. Summary
			1. Resolutions to 12 comments with following CIDs related to PHY Service Interface defined in the IEEE 802.11ax draft6.0 are proposed.
				1. CIDs: 24048, 24138, 24178, 24180, 24187, 24294, 24397, 24455, 24456, 24498, 24499, 24549
		2. Discussion
			1. CID 24138: The group discussed the parameter and compatibility related to the frequency band and modulation scheme.
			2. CID 24178: The group discussed definitions of such as SISO and MIMO in combination with SU and MU.
			3. CID 24187: A participant asked for the consistency of the reason for rejection with other related comments.
			4. CID 24379: The group discussed the AID11 – we may need better definition.
			5. CID 24455, 24456, 24549: People discussed the numbering of space time streams.
			6. Discussion continued.
		3. Next Step
			1. Bo to have offline work and update the document.
7. **Motions related to the submissions discussed last week**
	1. **CID 24269 in Doc.11-20-0304r6 “11ax D6.0 NAV,” by Po-Kai Huang (Intel)**
		1. Po-Kai presented the updates of the proposed resolution to the CID 24269.
			1. Discussion
				1. A participant will submit a comment on this in the next round of the ballot.
			2. **CR Motion #1003: Move to accept resolution to CID 24269 in doc 11-20/0304r6.**
				1. **Moved by Po-Kai Huang, Second: Alfred Asterjadhi**
				2. **Discussion – no discussion**
				3. **Result: Approved by unanimous consent.**
	2. **Doc.11-20-0297r3 “CR-For-7-CIDs,” by Jarrko Kneckt (Apple)**
		1. Jarkko presented the updates on the resolutions for CIDs 24031, 24169, 24523, 24457 and 24458 contained in the doc 11-20-0297r3.
			1. Discussion – no discussion.
			2. **CR Motion #1004: Move to accept resolutions to CIDs 24169, 24365, 24142 and 24458 in doc 11-20/0297r3.**
				1. **Moved by Jarkko Kneckt, Seconded: Alfred Asterjadhi**
				2. **Discussion: no discussion**
				3. **Result: Approved by unanimous consent.**
8. **CR submissions – Part II**
	1. **Alfred Asterjadhi (Qualcomm) presented “Comment resolutions for miscellaneous CIDs in clause 3,” based on the submission 11-20-0348-01.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to clause 3 of the IEEE 802,11ax D6.0 are proposed.
				1. CIDs: 24272, 24273, 24274.
		2. Discussion
			1. A participant had sent an email to Alfred.
		3. Next Step
			1. Alfred to take a look at and update the document.
	2. **Alfred Asterjadhi (Qualcomm) presented “Comment resolutions for miscellaneous CIDs in clause 10,” based on the submission 11-20-0349-00.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to clause 3 of the IEEE 802,11ax D6.0 are proposed.
				1. CIDs: 24021, 24135, 24170, 24275, 24423
		2. Discussion
			1. CID 24170: A participant asked for deferral.
			2. CID 24275: A member commented that he did not identify any technical issue and did not agree with the proposed resolution.
			3. CID 24423: People discussed the technical issue about this comment. One of the member will send an email to Alfred.
		3. Next Step
			1. Alfred to revise the document incorporating the result of discussion.
	3. **Abhishek Patil (Qualcomm) presented “Resolution for CIDs related to Multiple BSSID,” based on the submission 11-20-0315-00.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to the Multiple BSSID feature defined in the IEEE 802,11ax D6.0 are proposed.
			2. CIDs: 24545, 24055, 24108, 24469, 24115, 24109, 24110, 24111, 24039, 24112, 24113
		2. Discussion
			1. CID 24545: In some places “antenna connector” are good, but, in some other places, “antenna connectors” are appropriate. Need to be careful to modify the baseline text.
			2. CID 24109: deferred by request from a member. Another member have sent an email on this comment.
			3. CID 24110: The group discussed clarification of nontransmitted BSSID and KnownBSSID.
		3. Next Step
			1. Abhishek’s presentation was stopped due to the time constraint.
			2. To be continued in the next teleconference.
9. **AoB**
	1. Time is up.
10. **Adjourn**
	1. TGax teleconference adjourned @ 13:00 (ET).

**Monday, March 19th, 2020, TGax CRC Teleconference (20:00 - 23:00 ET)**

1. **The meeting called to order at 20:03 (ET) by Osama Aboul-Magd (Huawei Technologies), the chairperson of 802.11 TGax.**
	1. Introduction of TGax chairperson and secretary.
	2. The agenda document 20/0477r1 is on the server.
2. **Attendees**
	1. Osama Aboul-Magd (Huawei Technologies)
	2. Alfred Asterjadhi (Qualcomm)
	3. George Cherian (Qualcomm)
	4. Liwen Chu (NXP)
	5. Thomas Derham (Broadcom)
	6. Matthew Fischer (Broadcom)
	7. Lili Hervieu (CableLabs)
	8. Po-Kai Huang (Intel)
	9. Yasuhiko Inoue (NTT)
	10. Srinivas Kandala (Samsung)
	11. Jeongki Kim (LG Electronics)
	12. Youhan Kim (Qualcomm)
	13. Jarkko Kneckt (Apple)
	14. Manish Kumar (NXP)
	15. Hui-Ling Lou (NXP)
	16. Pooya Monajemi (Cisco)
	17. Abhishek Patil (Qualcomm)
	18. Al Petrick (InterDigital)
	19. Yongho Seok (MediaTek)
	20. Bo Sun (ZTE)
	21. Pascal Viger (Canon)
	22. Rui Yang (InterDigital)
	23. Mao Yu (NXP)
3. **Agenda Setting**
	1. Proposed agenda for the TGax Teleconference on March 19th, 2020.
		1. Call meeting to order
		2. IEEE-SA IPR policy and Procedure
		3. Attendance Reminder – Please send an e-mail to Yasuhiko Inoue (yasu.inoue.h2k5@gmail.com) and/or Osama Aboul-Magd (Osama.aboulmagd@huawei.com)
		4. Motions related to the submissions discussed during the previous teleconference, if ready
			1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0297-00-00ax-cr-for-7-cids.docx> - Jarkko Kneckt
			2. <https://mentor.ieee.org/802.11/dcn/20/11-20-0369-02-00ax-cr-cid-24054.docx> - Po-Kai Huang
			3. <https://mentor.ieee.org/802.11/dcn/20/11-20-0352-01-00ax-cr-d6-0-he-phy-service-interface.docx> - Bo Sun
			4. <https://mentor.ieee.org/802.11/dcn/20/11-20-0348-01-00ax-mac-cr-misc-cids-in-clause-3.docx> - Alfred Asterjadhi
			5. <https://mentor.ieee.org/802.11/dcn/20/11-20-0349-00-00ax-mac-cr-misc-cids-in-clause-10.docx> - Alfred Asterjadhi
		5. CR Submissions
			1. <https://mentor.ieee.org/802.11/dcn/20/11-20-0315-00-00ax-resolution-for-cids-related-to-multiple-bssid.docx> – Abhishek Patil
			2. <https://mentor.ieee.org/802.11/dcn/20/11-20-0316-00-00ax-resolution-for-cids-related-to-bss-color.docx> – Abhishek Patil
			3. <https://mentor.ieee.org/802.11/dcn/20/11-20-0317-00-00ax-resolution-for-misc-cids.docx> – Abhishek Patil
			4. <https://mentor.ieee.org/802.11/dcn/20/11-20-0318-00-00ax-resolution-for-cids-related-to-uora.docx> – Abhishek Patil
		6. AoB
		7. Adjourn
	2. Chair asked if there is any objection to proceed with this agenda. 🡪 No objection.
		1. **The agenda for the TGax teleconference on March 19th, 2020 is approved.**
4. **Announcements**
	1. Chair asked the attendees to announce name and the affiliation when addressing the group for the first time during a meeting slot.
	2. Attendance: Please send an e-mail to Yasuhiko Inoue (yasu.inoue.h2k5@gmail.com) and/or Osama Aboul-Magd (Osama.aboulmagd@huawei.com)
	3. Chair asked people to put the cellphone mute of switch off.
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	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
	5. Patent-related information – done
	6. Participant behavior in IEEE-SA activities is guided by the IEEE Codes of Ethics & Conduct - done
	7. Participants in the IEEE-SA “individual process” shall act independently of others, including employers - done
	8. IEEE-SA standards activities shall allow the fair & equitable consideration of all viewpoints - done
6. **CR Presentation**
	1. **Abhishek Patil (Qualcomm) presented “Resolution for CIDs related to Multiple BSSID,” based on the submission 11-20-0315-00.**
		1. Summary
			1. Abhishek resumed his presentation.
		2. Discussion
			1. CID 24545: The resolution was changed to “Revised.”
			2. CID 24039, 24112: The group discussed pros and cons of current specification of nontransmitted BSSID. One of the participant is concerned by the resolution. Need more offline discussions.
			3. CID 24113: A member commented that this was not the way that we had agreed to resolve the comment.
			4. CID 24108: A member commented that the removed sentence is necessary. He will take a close look at on this part.
		3. Next Step
			1. Some CIDs need more offline discussions.
	2. **Abhishek Patil (Qualcomm) presented “Resolution for CIDs related to UORA,” based on the submission 11-20-0318-00.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to the UORA (Uplink OFDMA Random Access) feature defined in the IEEE 802,11ax D6.0 are proposed.
			2. CIDs: 24164, 24026, 24382, 24383
		2. Discussion
			1. CID 24382, 24383: A participant commented that “Associated to different BSSID” is not correct. It should be “Associated to an AP with different BSSID.”
		3. Next Step
			1. Abhishek to update the document.
	3. **Abhishek Patil (Qualcomm) presented “Resolution for CIDs related to BSS Color,” based on the submission 11-20-0316-01.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to the BSS Color defined in the IEEE 802,11ax D6.0 are proposed.
			2. CIDs: 24144, 24147, 24555, 24556, 24310, 24442, 24242, 24243, 24244, 24245, 24516, 24515, 24246, 24247, 24248, 24249, 24250, 24514
		2. Discussion
			1. CID 24242, 24243: The group discussed non-HE case, i.e. partial AID and clarified co-hosted AP case and TDLS case.
			2. CID 24249: A member asked if there is definition of “instance of collision”
		3. Next Step
			1. Abhishek to update the document.
	4. **Alfred Asterjadhi (Qualcomm) presented “Comment resolutions for miscellaneous CIDs in clause 9,” based on the submission 11-20-0445-00.**
		1. Summary
			1. Resolutions to the comments with following CIDs related to clause 9 (Frame Format) of the IEEE 802,11ax D6.0 are proposed.
			2. CIDs: 24299, 24361, 24421, 24422, 24464, 24492, 24493
		2. Discussion
			1. CID 24299: Current reason for the rejection is not correct.
			2. CID 24464: The reason for the rejection of this comment ca also be applied to CID 24299.
		3. Next Step
			1. Alfred to update the document to have a motion in the next teleconference.
7. **AoB**
	1. No other business for today.
8. **Adjourn**
	1. TGax teleconference adjourned @ 22:09 (ET).