IEEE P802.11  
Wireless LANs

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| Minutes of TGax Teleconferences from November 2018 to January 2019 | | | | |
| Date: 2018-01-11 | | | | |
| Author(s): | | | | |
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Abstract

This document contains minutes of TGax teleconference from November 2018 to January 2019.

Rev. 0: Initial version.

* Cummulative minutes of TGax teleconferences on November 29th, December 6th, 13th, 20th 2018, January 3rd and 10th, 2019.

# Teleconference on Thursday, November 29th, 2018, 18:00 – 20:00 (ET)

1. **Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 18:03 (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance (Please send an e.mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com))
      4. Announcements
      5. Comment Resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1897-00-00ax-6ghz-principles.pptx>, Brian Hart (Cisco Systems)
         2. <https://mentor.ieee.org/802.11/dcn/18/11-18-1486-00-00ax-d3-0-comment-resolution-27-5-3-5.docx>, Liwen Chu (Marvell Semiconductor)
         3. [https://mentor.ieee.org/802.11/dcn/18/11-18-1859-02-00ax-d3-0-comment-resolution-27-10-4.docx](https://mentor.ieee.org/802.11/dcn/18/11-18-1859-02-00ax-d3-0-comment-resolution-27-10-4.docx%20) , Liwen Chu (Marvell Semiconductor)
         4. <https://mentor.ieee.org/802.11/dcn/18/11-18-1487-00-00ax-d3-0-comment-resolution-27-5-3-2-3.docx>, Liwen Chu (Marvell Semiconductor) – to be uploaded.
         5. <https://mentor.ieee.org/802.11/dcn/18/11-18-1876-01-00ax-resolutions-to-miscellaneous-mac-comments.docx>, Osama Aboul-Magd (Huawei Technologies)
      6. AOB
      7. Adjourn
   2. Approval of the agenda
      1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
      2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
      3. The agenda was approved.
3. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
4. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
5. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair memtioned that we still had 283 comments to resolve.
6. **Comment Resolution**
   1. **Liwen Chu (Marvell Semiconductor) presented “11ax D3.0 Comment Resolution 27.5.3.2.3,” based on the submission 11-18-1487-00.**
      1. Summary
         1. Resolutions for the comments with following CIDs related to the IEEE 802.11ax D3.0 subclause 27.5.3.2.3 are proposed.
            1. CIDs: 15084, 15684, 15685, 16404, 16607, 16608, 17117
      2. Discussion
         1. (CID 15084) The resolution should be “Accepted” rather than “Agreed”.
         2. (CID 15685) A member is confused by this comment. He does not understand which part of 27.4.4.6 the comment is talking about.
         3. (CID 16404) A participant commented that “frame transmitted in a spatial stream” is not a well defined concept and he is looking for an appropriate wording.
         4. (CID 16607) The group discussed the meaning of the comment and the impact of the MultiBSSID trigger to the legacy devices.
         5. (CID 17117) A participant mentioned that the resolution should be “Revised.” This issue has been already resolved in D3.2.
      3. Next Step
         1. Liwen to update the document.
   2. **Brian Hart (Cisco Systems) presented “6 GHz Principles,” based on the submission 11-18-1897-00.**
      1. Summary
         1. Brian discussed the principles of 6 GHz operation.
            1. Relevant CID: 15120
      2. Discussion
         1. The group discussed the benefit of limiting the channels for HE devices. Some people mentioned that it would cause other issues.
         2. A participant mentioned that we should understand the real problem of 802.11ax devices not be able to use the frequency resources efficiently. 🡪 Brian mentioned that the 160 MHz channel will be primary use of 6 GHz band. 8 duplication of 20 MHz non-HE transmission will be an example.
         3. Another member discussed the global harmonization of 6 GHz frequency.
      3. Next Step
         1. Need more discussion.
   3. **Osama Aboul-Magd (Huawei Technologies) presented “Resolutions to Miscellaneous MAC Comments,” based on the submission 11-18-1876-01.**
      1. Summary
         1. Resolutions for the comments with following CIDs on IEEE 802.11ax D3.0 are proposed.
            1. CIDs: 15565, 16175, 16224, 16360, 17009 and 16082.
      2. Discussion
         1. (CID 15565) A member commented that he did not understand the concept of AP torelating narrow band RU. The group discussed the technical difference between two proposed options.
         2. (CID 16082) A member commented that the last part of the resolution was not valid. 🡪 Deleted from the resolution.
      3. Next Step
         1. Osama to update the document.
7. **AOB**
   * 1. None
8. **Adjournment**
   1. No time to go through the rest of the agenda items.
   2. Meeting adjourned at 10:20 (ET).
9. **List of Attendees**

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|  | **Name** | **Affiliation** |
| 1 | Osama Aboul-Magd | Huawei Technologies |
| 2 | Tomoko Adachi | Toshiba |
| 3 | Stephane Baron | Canon Research |
| 4 | Liwen Chu | Marvell |
| 5 | Thomas Derham | Broadcom Ltd. |
| 6 | Brian Hart | Cisco Systems |
| 7 | Tony Xiao Han | Huawei Technologies |
| 8 | Yasu Inoue | NTT |
| 9 | Jeongki Kim | LG Electronics |
| 10 | Jae Seung Lee | ETRI |
| 11 | Joseph Levy | InterDigital Communications |
| 12 | Pooya Monajemi | Cisco Systems |
| 13 | Patrice Nezou | Canon Research |
| 14 | Kome Oteri | InterDigital Communications |
| 15 | Abhishek Patil | Qualcomm |
| 16 | Al Petrick | InterDigital Communications |
| 17 | Mark Rison | Samsung |
| 18 | Kiseon Ryu | LG Electronics |
| 19 | Nakseon Seong | ??? |
| 20 | Rober Stacey | Intel |
| 21 | Jung Hoon Suh | Huawei Technologies |
| 22 | Pascal Vigar | Canon Research |
| 23 | Chao-Chun Wang | MediaTek |
| 24 | Xiaofei Wang | InterDigital Communications |
| 25 | Rui Yang |  |
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# Teleconference on Thursday, December 6th, 2018, 10:00 AM – 12:00 (ET)

1. **Meeting called to order by Alfred Asterjadhi (Qualcomm), the vice-chair of TGax @ 10:05 AM (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance reminder: Please send an e-mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com)
      4. Announcements
      5. Status of comment resolution
      6. Comment resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-2040-01-00ax-11ax-d3-0-comment-resolution-miscellaneous.docx>, Liwen Chu
         2. <https://mentor.ieee.org/802.11/dcn/18/11-18-1987-01-00ax-d3-0-comment-resolution-on-mac-miscellaneous.docx>, Jae Seung Lee
         3. <https://mentor.ieee.org/802.11/dcn/18/11-18-1868-03-00ax-cr-for-clause-4.docx>, Guoqing Li
         4. <https://mentor.ieee.org/802.11/dcn/18/11-18-1855-00-00ax-comments-resolution-27-16-4.docx>, Chao-Chun Wang
      7. AOB
      8. Adjourn
   2. Approval of the agenda
      1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
      2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
      3. The agenda was approved.
3. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
4. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
5. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair also asked people to mute the microphone when not speaking.
6. **Comment Resolution**
   1. **Jae Seung Lee (ETRI) presented “D3.0 Comment Resolution on MAC Miscellaneous,” based on the submission 11-18-1987-01.**
      1. Summary
         1. Resolutions for the comments with following CIDs on IEEE 802.11ax D3.0 are proposed.
            1. CIDs: 15210, 15875, 16581, 16582, 16583, 16556, 16558, 15038, 15064 and 15065.
      2. Discussion
         1. (CID 15210) The group discussed the relationship between MIN variables and information element in the Beacon.
         2. (CID 15875) Need more time to check if the comment is valid.
         3. (CID 16583) A participant mentioned that the normative behaviour should be here.
         4. (CID 15038) This CID has been resolved in another document.
         5. (CID 15065) A member mentioned that the resolution should be “Revised”
         6. (CID 15875) The resolution should be “Revised” rather than “Accepted.”
      3. Next Step
         1. Jae Seung to update the document.
   2. **Guoqing Li (Apple) presented “CR for Clause 4,” based on the submission 11-18-1868-00.**
      1. Summary
         1. Resolutions for the comments with following CIDs on the IEEE 802.11ax D3.0 Clause 4 are proposed.
            1. CIDs: 15153, 15161, 16335, 16387, 16388, 16549, 16640, 16642, 17002, 17049, 17050, 17051
      2. Discussion
         1. (CID 15161) A member commented that the reason for the rejection is not good.
         2. (CID 16335) Some people expressed their disagreement to change Clause 21 (VHT PHY).
         3. (CID 15153) The commenter is not happy with the proposed resolution which is “Reject”. He offered offline work with Guoqing. Another participant commented that we should wait for D3.3 since we have approved some changes on this clause.
      3. Next Step
         1. Guoqing to work offline with some people.
   3. **Chao-Chun Wang (MediaTek) presented “11ax D2.0 MAC Comment Resolution for 27.16.4,” based on the submission 11-18-1855-01.**
      1. Summary
         1. Resolutions for the comments with following CIDs on the IEEE 802.11ax D3.0 subclause 27.16.4 are proposed.
            1. CIDs: 15900, 15773, 15635, 15774, 15775, 15046, 16559, 16560, 15726, 15784, 15785, 15448, 15449, 15787, 15418, 15125, 16619, 16620, 15419, 15788, 15126, 16621, 16622, 16561, 16873, 15725, 15451, 15452, 15789
      2. Discussion
         1. (CID 15900) A member expressed objection to the proposed change in 9.4.2.244.1. The proposed text was removed.
         2. (CID 15774, 15775) A participant mentioned that these comments are basicallt the same. The resolutions should “Accepted”.
         3. (CID 16560) Some people discussed how to resolve this comment. Need more time to come to agreement.
      3. Next Step
         1. Chao-Chun to have offline discussion and to update the document.
7. **AOB**
   1. None
8. **Adjournment**
   1. Meeting adjourned at 10:00 (ET).
9. **List of Attendees**

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|  | **Name** | **Affiliation** |
| 1 | Alfred Asterjadhi | Qualcomm |
| 2 | Stephane Baron | Canon Research |
| 3 | Albert Bredewoud | ??? |
| 4 | Yasuhiko Inoue | NTT |
| 5 | Jarkko Kneckt | Apple |
| 6 | Jae Seung Lee | ETRI |
| 7 | Guoqing Li | Apple |
| 8 | Kaiying Lv | ZTE |
| 9 | Patrice Nezou | Canon Research |
| 10 | Abhishek Patil | Qualcomm |
| 11 | Al Petrick | InterDigital Communications |
| 12 | Mark Rison | Samsung |
| 13 | Pascal Viger | Canon Research |
| 14 | Chao-Chun Wang | MediaTek |
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# Teleconference on Thursday, December 13th, 2018, 18:00 – 20:00 (ET)

1. **Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 18:02 (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance (Please send an e.mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com))
      4. Announcements
      5. Comment Resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1868-03-00ax-cr-for-clause-4.docx>,

Guoqing Li (Continue from previous call)

* + - 1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1855-00-00ax-comments-resolution-27-16-4.docx>, Chao-Chun Wang (continue from previous call)
      2. <https://mentor.ieee.org/802.11/dcn/18/11-18-2040-01-00ax-11ax-d3-0-comment-resolution-miscellaneous.docx>, Liwen Chu
      3. <https://mentor.ieee.org/802.11/dcn/18/11-18-1932-04-00ax-miscellaneous-crs-on-phy-and-mac.docx>, Peter Loc
      4. <https://mentor.ieee.org/802.11/dcn/18/11-18-2128-00-00ax-status-code.docx>, Po-Kai Huang
      5. <https://mentor.ieee.org/802.11/dcn/18/11-18-1807-03-00ax-proposed-resolutions-for-miscellaneous-cids.docx>, Yasu Inoue
    1. AOB
    2. Adjourn
  1. Approval of the agenda
     1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
     2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
     3. The agenda was approved.

1. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
2. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
3. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair mentioned that we had two more teleconferences planned before the Jnauary 2019 session. One more telelconference will be added on January 10th to accelerate the comment resolution.
4. **Comment Resolution**
   1. **Guoting Li (Apple) presented “CR for Clause 4,” based on the submission 11-18-1868-04.**
      1. Summary
         1. This is continuation of unfinished presentation from the previous TGax teleconference.
         2. Resolutions to the comments on 802.11ax D3.0 Clause 4 with following CIDs are proposed.
            1. CIDs: 15153, 15161, 16335, 16387, 16388, 16549, 16640, 16642, 17002, 17049, 17050, 17051.
      2. Discussion
         1. (CID 16388) A member mentioned he understood the commenter’s position that beamforming feedback shall be mandatory for a non-AP HE STA. Another member mentioned that the sounding procedure is mandatory for a non-AP HE STA according to 28.1.1. 🡪 Guoqing to double check.
         2. (CID 17051) A multi-TID AMPDU is either a non-ack-enabled multi-TID AMPDU or an ack-enabled multi-TID AMPDU, both are optional.
         3. (CID 16640) A member was confused and did not understand why this change was needed.
         4. (CID 16642) A member mentioned that our position should be consistent. Previous comment had also been rejected.
      3. Next Step
         1. Guoqing to update the document incorporating the result of discussion.
   2. **Chao-Chun Wang (MediaTek) presented “Comment Resolution 27.16.4,” based on the submission 11-18-1855-02.**
      1. Summary
         1. This is continuation of unfinished presentation from the previous TGax teleconference.
         2. Resolutions to the comments on 802.11ax D3.0 subclause 27.16.4 (Quiet HE STAs in an HE BSS) with following CIDs are proposed.
            1. CIDs: 15900, 15773, 15635, 15774, 15775, 15046, 16559, 16560, 15726, 15784, 15785, 15448, 15449, 15787, 15418, 15125, 16619, 16620, 15419, 15788, 15126, 16621, 16622, 16561, 16873, 15725, 15451, 15452, 15789
      2. Discussion
         1. (CID 16560) A member mentioned that this comment should be rejected. Another member, however, is concerned since the CCA rule for the HE STA does not exists.
         2. (CID 15726) There was a comment saying Quiet Time is also useful for the interference mitigation purpose. While some members understood the commenter’s position to remove the QTP.
         3. (CID 15784) A member mentioned that QTP Setup frame is unicast. It’s not clear how QTP period can be announced to other STAs. 🡪 It is broadcast frame.
         4. (CID 16620) There was a comment saying it would be good to put the same text if the resolution is the same as the previous comment.
         5. (CID 15126) There was a comment that “The control field” is not clear enough. 🡪 Chao-Chun to make it more specific.
      3. Next Step
         1. Chao-Chun to update the document incorporating the results of discussions.
         2. Mark Rison to send additional comments to Chao-Chun.
   3. **Po-Kai Hunag (Intel) presented “11ax D3.2 Proposal for Status Code,” based on the submission 11-18-2128-00.**
      1. Summary
         1. Proposed bug fixes of status code for TGax Draft D3.2.
      2. Discussion
         1. No discussion.
      3. Next Step
         1. The document seems to be ready for motion.
5. **AOB**
   * 1. None
6. **Adjournment**
   1. No time to go through the rest of the agenda items.
   2. Meeting adjourned at 19:58 (ET).
7. **List of Attendees**

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Affiliation** |
| 1 | Osama Aboul-Magd | Huawei Technologies |
| 2 | Stephane Baron | Canon Research |
| 3 | Yasu Inoue | NTT |
| 4 | Patrice Nezou | Canon Research |
| 5 | Rober Stacey | Intel |
| 6 | Pascal Vigar | Canon Research |
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# Teleconference on Thursday, December 20th, 2018, 10:00 – 12:00 (ET)

1. **Meeting called to order by Alfred Asterjadhi (Qualcomm), the vice-chair of TGax @ 10:00 (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance reminder: Please send an e-mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com)
      4. Announcements
      5. Status of comment resolution
      6. Comment resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-2040-01-00ax-11ax-d3-0-comment-resolution-miscellaneous.docx>, Liwen Chu
         2. <https://mentor.ieee.org/802.11/dcn/18/11-18-1932-04-00ax-miscellaneous-crs-on-phy-and-mac.docx>, Peter Loc
         3. <https://mentor.ieee.org/802.11/dcn/18/11-18-1807-03-00ax-proposed-resolutions-for-miscellaneous-cids.docx>, Yasu Inoue
      7. AOB
      8. Adjourn
   2. Approval of the agenda
      1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
      2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
      3. The agenda was approved.
3. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
4. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
5. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair also asked people to mute the microphone when not speaking.
6. **Comment Resolution**
   1. **Yasuhiko Inoue (NTT) presented “Resolutions for Miscellaneous CIDs,” based on the submission 11-18-1807-03.**
      1. Summary
         1. Resolutions for the comments with following CIDs on the IEEE 802.11ax D3.0 are proposed.
            1. CIDs: 15000, 16130, 15001, 16100, 16101, 16102, 15929, 16170
      2. Discussion
         1. (CID 15000 and 16130) The proposed change by CID 16130 is adopted as it is. Therefore, the resolution was changed from “Revised” to “Accepted”.
      3. Next Step
         1. The document needs to be updated.
   2. **Peter Loc (Huawei Technologies) presented “Proposed Resolutions to Miscs PHY and MAC CIDs,” based on the submission 11-18-1932-04.**
      1. Summary
         1. Resolutions for the comments with following CIDs on the IEEE 802.11ax D3.0 are proposed.
            1. CIDs: 16557, 16571, 16573, 16574, 16575, 16579, 16580
      2. Discussion
         1. (CID 16557) The comment is talking about some kinds of attack. Not exactly sure what should be done. The right answer will be to reject the comment. The group discussed the attack and robustness of the management frames. Peter to put more text in the resolution.
         2. (CID 16579) Transferred to Po-Kai Huang who resolved most of the NAV related comments.
         3. (CID 16580) Deferred for now.
      3. Next Step
         1. Peter to updated the document.
7. **AoB**
   1. Liwen is not available. No more material to discuss today.
   2. The next TGax teleconference is scheduled on January 3rd, 2019, 18:00 (ET).
8. **Adournment**
   1. TGax teleconference adjourned @ 11:45 AM (ET).
9. **List of Attendees**

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Affiliation** |
| 1 | Osama Aboul-Magd | Huawei Technologies |
| 2 | Alfred Asterjadhi | Qualcomm |
| 3 | Liwen Chu | Marvell Semiconductor |
| 4 | Yasuhiko Inoue | NTT |
| 5 | Kome Oteri | InterDigital Communications |
| 6 | Abhishek Patil | Qualcomm |
| 7 | Al Petrick | InterDigital Communications |
| 8 | Kiseon Ryu | LG Electronics |
| 9 | Jung Hoon Suh | Huawei Technologies |
| 10 | Xiaofei Wang | InterDigital Communications |
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# Teleconference on Thursday, January 3rd, 2018, 10:00 – 12:00 (ET)

1. **Meeting called to order by Alfred Asterjadhi (Qualcomm), the vice-chair of TGax @ 10:00 (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance reminder: Please send an e-mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com)
      4. Announcements
      5. Status of comment resolution
      6. Comment resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-2040-01-00ax-11ax-d3-0-comment-resolution-miscellaneous.docx>, Liwen Chu
      7. AOB
      8. Adjourn
   2. Approval of the agenda
      1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
      2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
      3. The agenda was approved.
3. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
4. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
5. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair also asked people to mute the microphone when not speaking.
6. **Comment Resolution**
   1. **Liwen Chu (Marvell Semiconductor) presented “11ax D3.0 Comment Resolution miscellaneous,” based on the submission 11-18-2040-03.**
      1. Summary
         1. Resolutions for the comments with following CIDs on the IEEE 802.11ax D3.0 are proposed.
            1. CIDs: 15079, 16504, 16868, 16949, 16950, 15090, 15952, 15333, 16012, 16663, 17153, 16250, 16163, 16168, 16214, 16221, 16282, 16351, 15606, 15934
      2. Discussion
         1. (CID 15079) There was a comment that the resolution should be “Accepted” rather than “Revised”. The commenter mentioned that the CID 15079 has already been resolved in D3.3.
         2. (CID 15090) The group agreed that we should come up with better wording. A member is trying to provide the resolution.
         3. (CID 16663) “Agreed in principle.” is added to the resolution text.
         4. (CID 16168) A member prefers the proposed change by the commenter. 🡪 Need more discussion.
      3. Next Step
         1. 4 CIDs deferred for now. Liwen to revised the document.
7. **AoB**
   1. No other business to conduct.
8. **Adjournment**
   1. TGax teleconference adjourned @ 11:25 AM (ET)
9. **List of Attendees**

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Affiliation** |
| 1 | Osama Aboul-Magd | Huawei Technologies |
| 2 | Liwen Chu | Marvell Semiconductor |
| 3 | Perry Correl | Aerohive |
| 4 | Yasu Inoue | NTT |
|  | Mark Rison | Samsung |
|  | Abhishek Patil | Qualcomm |
| 5 | Al Petrick | InterDigital Communications |
| 6 | Kiseon Ryu | LG Electronics |
| 7 | Sigurd Schelstraete | Quantenna Communications |
| 8 | Jung Hoon Suh | Huawei Technologies |
| 9 | Rui Yang | InterDigital Communications |
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# Teleconference on Thursday, January 10th, 2018, 10:00 – 12:00 (ET)

1. **Meeting called to order by Alfred Asterjadhi (Qualcomm), the vice-chair of TGax @ 10:00 (ET).**
   1. Introduction of the chairperson Osama Aboul-Magd (Huawei Technologies) and the secretary Yasuhiko Inoue (NTT).
2. **Agenda Setting**
   1. Proposed Agenda
      1. Call the meeting to order
      2. IEEE 802 and 802.11 IPR policies and procedures
      3. Attendance reminder: Please send an e-mail to Yasuhiko Inoue (inoue.yasuhiko@lab.ntt.co.jp) and/or Osama Aboul-Magd (osama.aboulmagd@huawei.com)
      4. Announcements
      5. Status of comment resolution
      6. Comment resolution
         1. <https://mentor.ieee.org/802.11/dcn/18/11-18-1987-01-00ax-d3-0-comment-resolution-on-mac-miscellaneous.docx>, Jae Seung Lee (A new revision will be uploaded)
      7. AOB
      8. Adjourn
   2. Approval of the agenda
      1. Chair asked if there is any item to add to the agenda. 🡪 No item to add to the agenda.
      2. Chair asked if there is any objection to approve the agenda. 🡪 No objection.
      3. The agenda was approved.
3. **IEEE 802 and 802.11 IPR Policy and Procedure**
   1. Chair mentioned that we are operating under the IEEE 802 and 802.11 Policy and Procedure.
   2. Relevant documents
      1. IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>
      2. Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>
      3. LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>
      4. Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>
      5. Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>
      6. Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>
      7. IEEE 802.11 Working Group Operartions Manual - <https://mentor.ieee.org/802.11/dcn/14/11-14-0629-21-0000-802-11-operations-manual.docx>
      8. Participation in IEEE 802 Meetings
   3. Chair asked if there is any potentially essential patent that people are aware of.
      1. No potentially essential patent reported.
4. **Attendance**
   1. Chair asked the attendees to send an email to Yasuhiko ([inoue.yasuhiko@lab.ntt.co.jp](mailto:inoue.yasuhiko@lab.ntt.co.jp)) and/or Osama ([osama.aboulmagd@huawei.com](mailto:osama.aboulmagd@huawei.com)) to record attendance.
5. **Announcement**
   1. Chair asked people to state name and affiliation when addressing for the first time during the session.
   2. Chair also asked people to mute the microphone when not speaking.
6. **Comment Resolution**
   1. **Jae Seung Lee (ETRI) presented “Comment Resolution Miscellaneous,” based on the submission 11-18-1987-02.**
      1. Summary
         1. Jae Seung presented the new revision (r2) of the document 11-18/1987.
      2. Discussion
         1. (CID 15120) A member commented that he was not sure if this change was really needed and suggested further modification to the proposed text.
         2. (CID 16583) Jae Sueng changed the resolution based on a feedback from a member.
         3. (CID 15038) This CID was resolved in another submission and was removed from this document.
         4. (CID 15064) A member mentioned that the first and the second sentences should be merged.
      3. Next Step
         1. Jae Seung to update the document. He is not able to attend the January 2019 session. Therefore, Osama will take care of this document.
7. **AoB**
   1. No other busuness to conduct.
8. **Adjournment**
   1. TGax teleconference adjourned @ 10:34 AM (ET).
9. **List of Attendees**

|  |  |  |
| --- | --- | --- |
|  | **Name** | **Affiliation** |
| 1 | Osama Aboul-Magd | Huawei Technologies |
| 2 | Yasu Inoue | NTT |
| 3 | Jae Seung Lee | ETRI |
| 4 | Abhishek Patil | Qualcomm |
| 5 | Al Petrick | InterDigital Communications |
| 6 | Mark Rison | Samsung |
| 7 | Sigurd Schelstraete | Quantenna Communications |
| 8 | Jung Hoon Suh | Huawei Technologies |
| 9 | Xiaofei Wang | InterDigital |
| 10 |  |  |