IEEE P802.11  
Wireless LANs

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| IEEE 802.11 TGax  July 2017 Berlin Meeting Minutes | | | | |
| Date: 2017-07-31 | | | | |
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|  |  |  |  |  |

Abstract

TGax meeting minutes from the IEEE 802.11 Berlin session, July 10th – 15th, 2017.

Minutes/Straw Polls from the ad hoc groups are contained in the following documents:

* PHY Ad Hoc
  + [11-17-1094-00](https://mentor.ieee.org/802.11/dcn/17/11-17-1094-00-00ax-tgax-july-2017-berlin-phy-ad-hoc-meeting-minutes.docx), July 2017 Berlin PHY Ad Hoc Meeting Minutes.
* MAC Ad Hoc
  + [11-17-1154-00](https://mentor.ieee.org/802.11/dcn/17/11-17-1154-00-00ax-11ax-mac-ad-hoc-meeting-minutes.docx), July 2017 TGax MAC Ad hoc Meeting Minutes.
* Joint MU and SR Ad Hoc
  + [11-17-1148-00](https://mentor.ieee.org/802.11/dcn/17/11-17-1148-00-00ax-tgax-mu-and-sr-ad-hoc-group-meeting-minutes-july-2017.docx), TGax MU and SR ad hoc group meeting minutes – Berlin, July 2017.

**IEEE 802.11 Task Group ax**

**July 2017 Berlin Meeting**

**Estrel Berlin, Berlin, Germany**

**July 10th – 15th, 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)**

**Monday, July 10th, 2017, PM1 TGax full Session (13:30-15:30)**

1. **The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chair of the TGax,** **@13:30.**
   1. Introduction of front table.
2. **Announcement**
   1. Agenda Doc.11-17/0887r0 on the server. Rev. 1 is the working document.
   2. Meeting Protocol: Chair asked to state name and affiliation when speaking for the first time.
   3. Attendance reminder.
      1. The attendance server: https://imat.ieee.org/
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. **Agenda items for the week**
   1. Approve meeting and teleconference minutes since May 2017.
   2. Continue with comment resolution on draft D1.0
   3. Schedule TG ad hoc meeting.
   4. Schedule TG telecons.
5. **General Flow of the meeting**
   1. Slides 14 and 15 of the 17/0555r0 contain general flow of the meeting.
   2. There are ten meeting slots planed for TGax.

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|  | Monday | | Tuesday | | Wednesday | | Thursday |
| AM1 |  | |  | | TGax  (full session) | |  |
| AM2 |  | | TGax  (Ad Hoc) | TGax  (Ad Hoc) |  | |  |
| PM1 | TGax  (full session) | |  |  | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (full session) |
| PM2 | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (Ad Hoc) | TGax  (full session) |
| PM3 |  | | TGax  (ad Hoc) | TGax  (ad Hoc) |  | |  |

1. **Agenda for Monday, July 10th, PM1 (13:30 – 15:30).**
   1. Proposed Agenda for Monday PM1:
      1. Call meeting to order
      2. IEEE-SA, 802 and 802.11 Policy and Procedure..
      3. Call for submissions
      4. Set Ad Hoc Groups schedule and approve agenda
      5. Summary from May 2017 meeting
      6. TG motions
         1. Approve TG meeting and Telecon minutes since May 2017 meeting.
         2. Approve resolutions of comments, if needed.
      7. Editor Report – Robert Stacey
      8. Timeline
      9. Options for the next TGax ad hoc meeting
      10. Reference 802.11ax Waveform Generator
      11. Presentations and Comment Resolution
          1. 11-17/0933, “PAR Modification to support 6 GHz band”, Rich Kennedy
          2. 11-17/1080, “Providing Reference Waveform Generator For 11ax PHY Specification” – Fei Tong
          3. Others (if time allows)
      12. Recess
   2. Chair asked if there are any other items – No items proposed.
   3. Meeting will be conducted based on this order.
2. **Call for submissions – 63 submissions**
   1. PHY – 21 submissions
      1. 11-17-0650, “LB 225 – Cluase 18.2 Comment Resolution,” Osama Aboul-Magd (Huawei Technologies)
      2. 11-17-0902, “Comment Resolutions on Clause 28 (HE PHY) Part 1,” Lochan Verma (Qualcomm)
      3. 11-17-0945, “CRs on 28.3.3.8,” Yujin Noh (Newracom)
      4. 11-17-0946, “Text modification on HE-SIG-B,” Yujin Noh (Newracom)
      5. 11-17-0960, “Follow-up on Doppler Design in 802.11ax,” Lochan Verma (Qualcomm)
      6. 11-17-0961, “Miscellaneous clarifications On HE PHY Part 1,” Lochan Verma (Qualcomm)
      7. 11-17-0973, “TGax D1.0 Comment Resolutions on 28.3.3.10 and 28.3.3.2,” Jinsoo Choi (LG Electronics)
      8. 11-17-0985, “CRs for the HE Trigger-based NDP feedback,” Xiaogang Chen (Intel)
      9. 11-17-0986, “CRs for the HE Trigger-based NDP feedback,” Xiaogang Chen (Intel)
      10. 11-17-0993, “11ax Comment Resolutions on Data Field,” Yang Zhang (Marvell)
      11. 11-17-0994, “Midamble Design,” Hongyuan Zhang (Marvell)
      12. 11-17-0995, “Doppler Comment Resolution,” Hongyuan Zhang (Marvell)
      13. 11-17-0996, “Update on Timing Related Constants and Some Equations,” Bin Tian (Qualcomm)
      14. 11-17-0998, “*NSYM* and *TPE* at RX side for Midamble design,” Yujin Noh (Newracom)
      15. 11-17-1001, “Comment Resolutions on Clause 28.2.2 (TXVECTOR and RXVECTOR parameters) Part 1,” Bo Sun (ZTE)
      16. 11-17-1006, “Miscellaneous HE-SIG-B related CIDs,” Sigurd Schelstraete (Quantenna)
      17. 11-17-1007, “Proposed resolution for CID 9021,” Sigurd Schelstraete (Quantenna)
      18. 11-17-1016, “Improvement Comment on Clause 28.3.3.4 (Pilot subcarriers),” Jung Hoon Suh (Huawei Technologies)
      19. 11-17-1021, “Usage of Doppler Bit in 11ax,” Jianhan Liu (MediaTek)
      20. 11-17-1050, “Additional Editorial Update Related to CID 9769,” Youhan Kim (Qualcomm)
      21. 11-17-1063, “DCM Text Correction,” Tianyu Wu (MediaTek)
   2. MAC – 38 submissions
      1. 11-17-0389, “Proposed resolution for CIDs for 27-2-1,” Kaiying Lv (ZTE)
      2. 11-17-0533, “LB225 CR Sub-clause 27.16.1,” Yongho Seok (Newracom)
      3. 11-17-0553, “LB225 11ax D1.0 Comment Resolution 27.10.4 Part 1,” Liwen Chu (Marvell)
      4. 11-17-0693, “11ax D1.0 MAC Comment Resolution for Quiet Time Period Part 1,” Chao-Chun Wang (MediaTek)
      5. 11-17-0759, “Comment Resolution on trigger frame for random access,” Jason Yuchen Guo (Huawei Technologies)
      6. 11-17-0812, “Trigger Frame for Random Access,” Jason Yuchen Guo (Huawei Technologies)
      7. 11-17-0925, “LB225 11ax D1.0 Comment Resolution 10.3.x,” Huizhao Wang (Quantenna)
      8. 11-17-0926, “CR HE MCS NSS Not Supported,” Matthew Fischer (Broadcom)
      9. 11-17-0957, “Comment resolution for Fragmentation,” Suhwook Kim (LG Electronics)
      10. 11-17-1002, “Comment resolution for HCF,” Suhwook Kim (LG Electronics)
      11. 11-17-1009, “11ax D1.0 MAC Comment Resolution for Quiet Time Period Part 3,” Chao-Chun Wang (MediaTek)
      12. 11-17-1010, “11ax D1.0 MAC Comment Resolution for Quiet Time Period Part 4,” Chao-Chun Wang (MediaTek)
      13. 11-17-1011, “11ax D1.0 MAC Comment Resolution for Quiet Time Period Part 5,” Chao-Chun Wang (MediaTek)
      14. 11-17-1014, “Resolution for CIDs on Association Exchange with DL MU,” Stephane Baron (Canon Research)
      15. 11-17-1023, “LB225 CR Sub-clause 27.11.3,” Yongho Seok (Newracom)
      16. 11-17-1031, “CR for remaining CIDs related to 27.5.5,” Laurent Cariou (Intel)
      17. 11-17-1032, “Proposed resolution for comments in 27.5.2,” Abhishek Patil (Qualcomm)
      18. 11-17-1034, ““11ax D1.0 MAC Comment Resolution for Quiet Time Period Part 6,” Chao-Chun Wang (MediaTek)
      19. 11-17-1044, “CIDs: Acknowledgment related comments,” George Cherian (Qualcomm)
      20. 11-17-1046, “Proposed Resolution to CID 7043,” Kaiying Lv (ZTE)
      21. 11-17-1049, “Target RSSI field,” Laurent Cariou (Intel)
      22. 11-17-1052, “HE MCS and NSS Comment resolutions,” Alfred Asterjadhi (Qualcomm)
      23. 11-17-1053, “Comment resolutions for remaining CIDs in OM Control,” Alfred Asterjadhi (Qualcomm)
      24. 11-17-1054, “LB225 CR 27.13 (Link Adaptation),” Frank Hsu (MediaTek)
      25. 11-17-1055, “LB225 CR CID7407,”Yongho Seok (Newracom)
      26. 11-17-1060, “CR on CID 6053,” Jeongki Kim (LG Electronics)
      27. 11-17-1062, “Proposed resolution for CID 9958,” Abhishek Patil (Qualcomm)
      28. 11-17-1067, “LB225 11ax D1.0 Comment Resolution OMI and Operation Mode,” Liwen Chu (Marvell)
      29. 11-17-1068, “LB225 11ax D1.0 Comment Resolution 10.7,” Liwen Chu (Marvell)
      30. 11-17-1069, “LB225 11ax D1.0 Comment Resolution 9.7.3,” Liwen Chu (Mervall)
      31. 11-17-1070, “Resolution for CID 5863,” Kiseon Ryu (LG Electronics)
      32. 11-17-1072, “OMI comment resolutions,” Jarkko Kneckt (Apple)
      33. 11-17-1077, “11ax D1.3 MAC Comment Resolution for 10.3.2.4 and 27.2.2 Part III,” Po-Kai Huang (Intel)
      34. 11-17-1081, “11ax D1.0 MAC Comment Resolution for 9.3.1.20,” Menzo Wentink (Qualcomm)
      35. 11-17-1082, “11ax D1.0 MAC Comment Resolution for 9.3.1.23.2/5,” Menzo Wentink (Qualcomm)
      36. 11-17-1087, “MAC-CR-CIDs 4813-4814,” Alfred Asterjadhi (Qualcomm)
      37. 11-17-1088, “Editorial fixes,” Alfred Asterjadhi (Qualcomm)
      38. 11-17-1091, “Proposed resolution for comments related to CIDs in 27.5.2,” Jing Ma (NICT)
   3. SR – 3 submission
      1. 11-17-0669, “Proposed resolution for CID 4928,” Kaiying Lv (ZTE)
      2. 11-17-0941, “CR for 27.9 spatial reuse,” Laurent Cariou (Intel)
      3. 11-17-1003, “Text DSC, CCAT and OBSS\_PD to Resolve SR Comments,” Graham Smith (SRT Wireless)
   4. MU – 3 submissions
      1. 11-17-0935, “Comment resolution for UL OFDMA-based random access (UORA),” Patrice Nezou (Canon Research)
      2. 11-17-1059, “”
      3. 11-17-1071, “Resolution for CID 6106, 9571, 10173,” Kiseon Ryu (LG Electronics)
   5. TG – 7 submissions
      1. 11-17-0308, “BSS Load Information Element for 11ax,” Frank Hsu (MediaTek)
      2. 11-17-0711, “Comment Resolution on PHY-CCA.indication,” Rojan Chitrakar (Panasonic)
      3. 11-17-0913, “P802.11ax PAR Modification to support 6 GHz band,” Richard Kennedy (HPE)
      4. 11-17-0933, “P802.11ax PAR Modification,” Richard Kennedy (HPE)
      5. 11-17-1058, “Proposed resolution for comments related to Section 4.3.14a,” Guoqing Li (Apple)
      6. 11-17-1066, “CR on UL OFDMA in DFS Channels,” Youhan Kim (Qualcomm)
      7. 11-17-1080, “Providing Reference Waveform Generator For 11ax PHY Specification,” Fei Tong (Samsung)
   6. **Ad Hoc meeting scheduling**
      1. Ad Hoc slot assignment
         1. MAC … 6, PHY … 5, Joint MU & SR … 1.
      2. Chair asked if there are any objections to approve the TGax schedule as follow.
         1. There are no objections. The TGax schedule is approved.

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|  | Monday | | Tuesday | | Wednesday | | Thursday |
| AM1 |  | |  | | TGax  (full session) | |  |
| AM2 |  | | TGax  (PHY) | TGax  (MAC) |  | |  |
| PM1 | TGax  (full session) | |  |  | TGax  (PHY) | TGax  (MAC) | TGax  (full session) |
| PM2 | TGax  (PHY) | TGax  (MAC) | TGax  (MU/SR) | TGax  (MAC) | TGax  (PHY) | TGax  (MAC) | TGax  (full session) |
| PM3 |  | | TGax  (PHY) | TGax  (MAC) |  | |  |

1. **Summary from May 2017 Meeting**
   1. **Continued with the comment resolution on draft D1.0.**
      1. Good progress during the ad hoc meeting and this meeting.
      2. Resolutions of over 900 comments were approved.
      3. The TG Editor produced draft D1.3 based on resolved comments
   2. **Discussed the need to produce a reference waveform generator similar to that for HT and VHT – looking for volunteers.**
2. **TG Motions**
   1. **Motion: Approve TGax minutes of meetings and teleconferences from May 2017 meeting to today:** 
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0749-01-00ax-tgax-may-2017-daejeon-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0749-01-00ax-tgax-may-2017-daejeon-meeting-minutes.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0851-03-00ax-minutes-from-tgax-teleconferences-from-may-to-june-2017.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0851-03-00ax-minutes-from-tgax-teleconferences-from-may-to-june-2017.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0850-00-00ax-may-2017-daejeon-phy-ad-hoc-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0850-00-00ax-may-2017-daejeon-phy-ad-hoc-meeting-minutes.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0829-00-00ax-11ax-mac-ad-hoc-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0829-00-00ax-11ax-mac-ad-hoc-meeting-minutes.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0817-00-00ax-spatial-reuse-ad-hoc-group-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0817-00-00ax-spatial-reuse-ad-hoc-group-meeting-minutes.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0726-00-00ax-may-2017-seoul-phy-ad-hoc-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0726-00-00ax-may-2017-seoul-phy-ad-hoc-meeting-minutes.docx)
      * [**https://mentor.ieee.org/802.11/dcn/17/11-17-0691-00-00ax-tgax-may-2017-seoul-non-phy-ad-hoc-meeting-minutes.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0691-00-00ax-tgax-may-2017-seoul-non-phy-ad-hoc-meeting-minutes.docx)
      1. **Moved by Richard Kennedy, Seconded by Al Petrick.**
      2. **Discussion – No discussion.**
      3. **Result: Motion accepted with no objection.**
3. **Timeline**
   1. Slide 25 of the agenda document (17/0555) contains the modified timeline.
   2. Current Timeline
      1. **May 2014: start of the TG**
      2. **Nov. 2014: First draft of the TG SFD was approved**
      3. **Jan. 2016: proposed TG draft**
      4. **March 2016: Draft D0.1 was approved and CC started**
      5. **November 2016: Draft 1.0 and WG letter ballot**
      6. **September 2017: Draft 2.0 and WG letter ballot**
      7. **May 2018: MDR (Mandatory Document Review)**
      8. **May 2018: Formation of SB pool**
      9. **November 2018: Sponsor Ballot**
      10. **July 2019: RevCom**
4. **Editor’s Report**
   1. Email from Robert Stacy, the TGax editor, contains current status of the comment resolution for 802.11ax draft 1.0 (WG LB 225).
   2. Email from Robert on June 17th contains the current comment resolution status.

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| **Count of CID** | **Column Labels** |  |  |  |  |  |
| **Owning Ad-hoc** | Unassigned | Assigned | Resolution Drafted | Approved | Duplicate | Grand Total |
| **EDITOR** | 1480 | 59 | 641 | 2428 | 1114 | 5772 |
| **Approved Edits in D1.1** |  |  |  | 250 | 11 | 262 |
| **Approved Edits in D1.2** |  |  |  | 989 | 1 | 996 |
| **Approved Edits in D1.3** |  |  |  | 581 | 3 | 584 |
| **Approved Refects** |  |  |  | 607 | 9 | 616 |
| **CA Doc** | 10 |  |  |  |  | 10 |
| **Duplicates** |  |  |  |  | 1090 | 1090 |
| **Editorials** | 1446 |  |  | 1 |  | 1447 |
| **Editorials in D1.1** |  |  | 104 |  |  | 104 |
| **Editorials in D1.2** |  |  | 367 |  |  | 367 |
| **Editorials in D1.3** |  |  | 163 |  |  | 163 |
| **(blank)** | 24 | 59 | 1 |  |  | 84 |
| **MAC** | 19 | **1023** |  | 3 | 2 | 1047 |
| **Editorials** | 19 | 1 |  |  |  | 20 |
| **(blank)** |  | 1022 |  | 3 | 2 | 1027 |
| **MU** | 3 | **259** |  |  |  | 262 |
| **Editorials** | 3 |  |  |  |  | 3 |
| **(blank)** |  | 259 |  |  |  | 259 |
| **SR** |  | **94** |  |  |  | 94 |
| **(blank)** |  | 94 |  |  |  | 94 |
| **PHY** | 5 | **279** | 5 | 4 |  | 293 |
| **Editorials** | 5 |  |  |  |  | 5 |
| **OFDMA and non-OFDMA** |  |  | 1 |  |  | 1 |
| **(blank)** |  | 279 | 4 | 4 |  | 287 |
| **Grand Total** | 1507 | 1714 | 646 | 2435 | 1116 | 7418 |

1. **Progress from Teleconferences**
   1. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0702-03-00ax-cr-for-cid-9574.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0702-03-00ax-cr-for-cid-9574.docx) **- Kaiying (CID 9574)-ready for motion.**
   2. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0711-03-00ax-cr-for-phy-cca-indication.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0711-03-00ax-cr-for-phy-cca-indication.docx) **- Rojan updated to r4 (CIDs 4718, 4719, 6938, 6939, 7296, 7297 (6 CIDs) – ready for motion**
   3. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0088-03-00ax-cr-on-10-22-2-8-txop-limits.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0088-03-00ax-cr-on-10-22-2-8-txop-limits.docx) **- Woojin presented a new revision – (CIDs 6189, 7040, 9412) ready for motion**
   4. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0553-02-00ax-lb225-11ax-d1-0-comment-resolution-27-10-4-part-1.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0553-02-00ax-lb225-11ax-d1-0-comment-resolution-27-10-4-part-1.docx) **- Liwen Chu - to be rescheduled.**
   5. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0688-01-00ax-lb225-11ax-d1-0-comment-resolution-27-10-4-part-ii.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0688-01-00ax-lb225-11ax-d1-0-comment-resolution-27-10-4-part-ii.docx) **- Chittabrata Ghosh - (CIDs 4795, 5696, 6031, 7606, 7607, 7608, 7609, 9731, 9948, 9949, 9950, 9951, 9952) – ready for motion.**
   6. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0884-00-00ax-lb225-11ax-d1-0-comment-resolution-9-7-1.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0884-00-00ax-lb225-11ax-d1-0-comment-resolution-9-7-1.docx) **- Liwen- (CIDs6478, 7537, 7937, 8138, 9348, 10318) – ready for motion**
   7. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0619-02-00ax-client-management.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0619-02-00ax-client-management.docx) **- Eldad Perahia (CID 5163) Eldad uploaded a new revision based on comments – ready for motion (change resolution)**
   8. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0935-00-00ax-crs-for-clause-27-5-4-2-uora.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0935-00-00ax-crs-for-clause-27-5-4-2-uora.docx) **- Stephane Baron - long discussion related to QoS- (CIDs 6106, 9571, and 10173)- check for progress.**
   9. [**https://mentor.ieee.org/802.11/dcn/17/11-17-0606-00-00ax-lb225-mac-cr-clause-6.docx**](https://mentor.ieee.org/802.11/dcn/17/11-17-0606-00-00ax-lb225-mac-cr-clause-6.docx) **- Yasuhiko Inoue - CIDs 3003, 5428, 5429, 5430, 6002, 7705, 7894, and 10190 – ready for motion**
   10. **CID 9774 is withdrawn**
   11. **CID 7409 is withdrawn**
   12. **A total of 41 CIDs being resolved – ready for motion.**
   13. **Reconsidered comments:**
       1. **CID 7852 – 11-17/0614r3**
       2. **CID 10117 – 11-17/0698r2**
2. **September Ad Hoc Meeting Reminder**
   1. Sept. 6-8 in Santa Clara hosted by Hongyuan Zhang and his colleagues (Marvell Semiconductor).
      1. Hongyuan to send information on the ad hoc soon.
3. **Presentations**
   1. **Richard Kennedy (HPE) presented “P802.11ax PAR Modification,” based on the submission 11-17-0933-01.**
      1. Summary
         1. Recent spectrum needs studies indicate that by 2020 the Wi-Fi industry will require an additional 600-800 MHz of spectrum to support the current growth curve.
         2. The U-NII-2b band we expected to open is now off the table while opening the 6 GHz band will provide as much as 1.2 GHz of spectrum.
         3. A modification for the IEEE P802.11ax High Efficiency WLAN PAR is proposed to raise the top end of the frequency band from 6 GHz to 7.125 GHz.
      2. Discussion
         1. A member asked for the 802.11ac case. 🡪 It will be allowed to operate in the new frequency bands.
         2. Another member commented it will be more appropriate to do it in TGmd. 🡪 Requirements on such as TxPWR are closely related to the 802.11ax. TGmd has just started. A study will be conducted to assess the impact of on the incumbent systems.
         3. There was a question asking what exactly is the requirement for the new frequency band.
      3. Next Step
         1. There will be a TG Motion on this topic during the Wednesday AM1 session.
   2. **Fei Tong (Samsung) presented “Providing Reference Waveform Generator For 11ax PHY Specification,” based on the submission 11-17-1080-01.**
      1. Summary
         1. The objective is to provide PHY reference waveforms for HE frames.
         2. The work will include modeling effort of symbols in the PHY header (HE-SG-A, HE-SIG-B, HE-STF and HE-LTF) and testing effort of cross-checking by different members.
         3. Call for volunteers.
      2. Discussion
         1. A member asked if the development tool is MATLAB. 🡪Not necessarily limited to MATLAB. One of the members suggested an informal straw poll:
            1. Which option do you prefer?

Option 1) Provide a waveform generator code.

Option 2) Provide test vector directly.

* + - * 1. Another member commented that it is good to know how many people abstain/do not care. There will be many implementation specific techniques in 802.11ax and test vector may be difficult to provide.

Result: Option1/Option2 = 6/4.

* 1. **Alfred Asterjadhi (Qualcomm) presented “Comment Resolution on PHY-CCA.indication,” based on the submission 11-17-0711-04.**
     1. Summary
        1. One CID which is CID 8758 was excluded from the resolutions..
     2. Discussion
        1. No discussion.
     3. Next step
        1. Ready for motion if no further comments.

1. **AoB**
   1. PM2 and PM3 sessions on Monday May 8th are ad hoc sessions
      1. PM2
         1. PHY Ad Hoc – ECC 1.
         2. MAC Ad Hoc – ECC 2.
      2. PM3
2. **TGax meeting recessed @ 12:30.**

The next TGax full session is Wednesday AM1 (July 12th, 8:00 AM).

**Monday, July 10th, 2017, PM2 TGax Ad Hoc Sessions (16:00-18:00)**

* Ad Hoc #1: PHY @ ECC 1
  + Agenda: 11-17-1099
* Ad hoc #2: MAC @ ECC 2
  + Agenda: 11-17-1098

**Tuesday, July 11th, 2017, AM2 TGax ad hoc Sessions (10:30-12:30)**

* Ad hoc #1: PHY @ ECC 1
  + Agenda: 11-17-1099
* Ad hoc #2: MAC @ ECC 2
  + Agenda: 11-17-1098

**Tuesday, July 11th, 2017, PM2 TGax Ad Hoc Sessions (16:00-18:00)**

* Ad hoc #1: MU/SR @ ECC 1
  + Agenda: 11-17-1116
* Ad hoc #2: MAC @ ECC 2
  + Agenda: 11-17-1098

**Tuesday, July 11th 2017, PM3 TGax ad hoc Session (19:30-21:30)**

* Ad hoc #1: PHY @ ECC 1.
  + Agenda: 11-17-1099
* Ad hoc #2: MAC @ ECC 2.
  + Agenda: 11-17-1098

**Wednesday, July 12th 2017, AM1 TGax full Session (8:00-10:00)**

1. **The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of the TGax, @8:00 AM**
   1. Introduction of the chair and secretary.
   2. Agenda 17/0887r2 is on the server.
2. **Agenda Setting**
   1. Proposed agenda for this session
      1. Call Meeting to order
      2. Reminder
         1. IEEE-SA IPR Policy and procedure.
         2. Attendance, Meeting etiquette, etc.
      3. Progress review
      4. PAR Modification Motion
      5. Presentations
         1. 11-17/0308
         2. 11-17/1058
         3. 11-17/1066
      6. Recess
   2. Chair asked if there any comments or suggestions on the proposed agenda. No response.
      1. The agenda for Wednesday AM1 is approved.
3. **Reminder/Announcement**
   1. Chair reminded that we are still operating under IEEE 802 and 802.11 Policies and Procedures.
   2. Chair asked to state name and affiliation when addressing for the first time in the session.
   3. Chair asked to put cellphone mute.
4. **Progress Review**
   1. PHY: Good progress.
   2. MAC: 14 out of 35 submissions are presented. More time slots needed.
   3. MU/SR: 1 of the 6 submissions is duplicate. 1 submission was withdrawn. 4 submissions are presented.
   4. Additional time slots will be requested during the mid-week plenary.
5. **PAR Modification Motion**
   1. Presentation was given during Monday AM2.
   2. Discussion
      1. A member asked for the reason of removing the last sentence. 🡪 It relates to the regulatory annex. TGmd will be the right place to consider that part.
      2. Another member asked for related action to regulatory bodies.
      3. It is necessary to show evidence that there will be actual system that will use the new frequency band.
   3. **Motion: Believing that the PAR modification contained in the document referenced below meets IEEE-SA guidelines,**

**Request that the PAR modification contained in 11-17/0913r1 be posted to the IEEE 802 Executive Committee (EC) agenda for WG 802 preview and EC approval to submit to NesCom.**

* 1. **Moved by Richard Kennedy, Seconded by Stephen Palm.**
  2. **Result: Y/N/A = 54/0/0, motion passes**

1. **Presentations**
   1. **James Yee (MediaTek) presented “BSS Load Information Element for 11ax” based on the submission 11-17-0308-04.**
      1. Summary
         1. .
      2. Discussion
         1. A member commented that there are lots of information in this element. AP driven mechanism will also be possible.
         2. Another member mentioned that it generally seem to be good information. However, the benefit is not clear enough. The commenter does not oppose to extend the BSS Load IE, however, we should think about the reason that BSS Load IE is not used in actual environment. 🡪 The presenter replied that it will be useful to make devices to make a kind of decision.
         3. A member commented that no spec text is presented. Also the commenter mentioned that it is not clear what exactly a STA is required to do.
      3. **Straw Poll: Do you support defining a HE BSS load IE with contents as described by example on page 13 and 14?**
         1. **Discussion:**
            1. **Q: Does this mean to include all the information in the slides 13 & 14 in the new element? 🡪 Yes.**
         2. **Result: Y/N/A = 15/10/25. 🡪 Will not be converted to a motion.**
   2. **Guoqing Li (Apple) presented “Proposed resolution for comments related to Section 4.3.14a,” based on the submission 11-17-1058-05.**
      1. Summary
         1. This submission contains proposed resolutions for comments related to section 4.3.14a (80 CIDs).
            1. CIDs: 7698, 5091, 5116, 5423, 6927, 7699, 8641, 8173, 7697, 3000, 3101, 5039, 5117, 6928, 6929, 7007, 7290, 8536, 7013, 7700, 8014, 3001, 5884, 6930, 7291, 8537, 5118, 3150, 5119, 5687, 7701, 10183, 10338, 3293, 3343, 3579, 3660, 4009, 4096, 7378, 5279, 5424, 5730, 7464, 10184, 5815, 5731, 7465, 9613, 6071, 8364, 10185, 4896, 3149, 9616, 5120, 5121, 6233, 8341, 7702, 7466, 9614, 9248, 9615, 7467, 3002, 7468, 4714, 10187, 10188, 9249, 5733, 6235, 5425, 6232, 6234, 7293, 7703, 4713, 9246.
      2. Discussion
         1. A member commented that mandatory/optional should be mentioned. The commenter also suggested inclusion of multiple-BSSID.
   3. **Youhan Kim (Qualcomm) presented “CR on UL OFDMA in DFS Channels,” based on the submission 11-17-1066-01.**
      1. Summary
         1. Proposed resolutions for CIDs 4966, 4967, 5249, 8078, 8599, 8600, 8601, 9788, 9789 (9 CIDs).
      2. Discussion
         1. A member asked for a clarification of how an AP classifies the channel.
         2. Another member commented that the requirements for an AP should be more explicit. The commenter also asked for time duration 🡪 it’s open for suggestion.
      3. **Straw Poll: Do you agree to resolutions to CIDs 4966, 4967, 5249, 8078, 8599, 8600, 8601, 9788, 9789 in doc 11-17/1066r0?**
         1. **Result: Y/N/A = 27/0/12. 🡪 Will be converted to a motion.**
2. **Recess@10:02 AM.** 
   1. **There will be TGax ad hoc meetings this afternoon.**
   2. **Chair will send out an email.**

As a result of room request during WG mid-week plenary, an additional meeting slot was assigned for TGax during Thursday AM1.

**Wednesday, July 12th 2017, PM1 TGax Ad Hoc Sessions (13:30-15:30)**

* Ad Hoc #1: PHY – ECC 1
  + Agenda: 11-17-1099.
* Ad Hoc #2: MAC – ECC 2
  + Agenda: 11-17-1098.

**Wednesday, July 12th 2017, PM2 TGax Ad Hoc Sessions (16:00-18:00)**

* Ad Hoc #1: PHY – ECC 1
  + Agenda: 11-17-1099.
* Ad Hoc #2: MAC – ECC 2
  + Agenda: 11-17-1098.

**Thursday, July 13th, 2017, AM1 TGax MAC ad hoc Session (8:00-10:00)**

* MAC Ad hoc – ECC 2
  + Agenda: 11-17-1098.

**Thursday, July 13th, 2017, PM1 TGax full Session (13:30-15:30)**

1. **The meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of the TGax, @13:30.**
   1. Agenda 17/0887r5 is on the server. Rev. 6 is the working document.
   2. Introduction of front table.
2. **Agenda for this session**
   1. Thursday PM1 and PM2
      1. Call Meeting to order
      2. Agenda Setting
      3. Announcement/Reminder
         1. IEEE 802 and 802.11 IPR Policy and procedure.
         2. Attendance
      4. September ad hoc meeting motion
      5. TG Motions
      6. Goals for September 2017
      7. Teleconferences schedule
      8. Presentations
         1. Motion left from PM1
         2. CR-related submissions
         3. 11-17/1144, “Ack Policy in BlockAckReq” – Robert Stacey
      9. Adjourn
   2. Chair asked if there are any modifications to the agenda.
      1. TGax complaint from a member: A member expressed his concern as summarized below.
         1. Discussion of proposed resolutions is being short-circuited in the MAC ad-hoc on the basis that we just have to close down CIDs ASAP. There is inadequate time before and during the sessions to review and discuss proposed changes and the proposed resolutions, before a "ready for motion" straw poll is held.
         2. Due process should be followed, if only because otherwise we will end up with another poor-quality draft that will require significant rework, causing more delay than if the issues had been dealt with when they first arose.
      2. The chair confirmed that the complaint from the member is recorded in the minutes.
      3. Agenda approved without objections.
3. **Announcement/Reminder**
   1. Chair reminded IEEE 802 and 802.11 IPR P&P.
   2. Chair asked people to state name and affiliation when addressing for the first time in the session.
   3. Chair reminded people to do attendance.
4. **September Ad hoc Meeting Motion**
   1. **Motion: Authorize TGax to hold an ad-hoc meeting on September 6-8, 2017 in the Bay area, for the purpose of comment resolution.**
      1. **Moved by Hongyuan Zhang, Seconded by VK Jones.**
      2. **Discussion – No discussion.**
      3. **Result: Y/N/A = 45/0/2, motion passes.**
5. **Motions – TG documents**
   1. **PHY Motions**
      1. **PHY Motion # 193: Move to accept the proposed spec text modification in Clause 28.3 as in 11-17/1109r0.**
         1. **Moved by Yujin Noh, Seconded by Bo Sun.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
      2. **PHY Motion #194: Move to accept the proposed spec text modification to clause 28.3.3.4 in 11ax D1.3 as in 11-17/1016r1.**
         1. **Moved by Bin Tian, Seconded by Ross Jian Yu.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
      3. **PHY Motion #195: Move to accept the proposed spec text modification to 11ax D1.3 as in 11-17/0996r0.**
         1. **Moved by Bin Tian, Seconded by Lochan Verma.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
      4. **PHY Motion #196: Move to accept the proposed spec text modification to 11ax D1.3 as in 11-17/1050r0.**
         1. **Moved by Youhan Kim, Seconded by Bin Tian.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
      5. **PHY Motion #197: Move to accept the proposed spec text modification in Clause 28.3.10.8.5 as in 11-17/1063r0.**
         1. **Moved by Bin Tian, Seconded by Hongyuan Zhang.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
   2. **CR Motions (PHY)**
      1. **CR Motion #319 (SR): Move to accept the proposed comment resolution to the CID 4928 and the corresponding spec text modification as in 11-17/0669r3.**
         1. **Moved by Jarkko Kneckt, Seconded by Bo Sun.**
         2. **Discussion: No discussion.**
         3. **Result: Motion was accepted with no objection.**
      2. **CR Motion #320 (SR): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification as in 11-17/0941r2.**

**CIDs: 3078, 3079, 3080, 3081, 3082, 4261 ,4926, 5088, 5200, 5201, 5202, 5203, 5209, 5480, 5481, 5483, 5486, 5487, 5488 ,5490, 5491, 5492, 5493, 5575, 5576, 5681, 5864, 6018, 6021, 6022, 6024, 6026 ,6027, 6028, 6054, 6150, 6153, 6759, 6761, 6762, 6765, 6766, 6767, 7121, 7126, 7172, 7173, 7229, 7230, 7405, 7610, 7911, 8072, 8074, 8088, 8101, 8102, 8103, 8230, 8236, 8237, 8562, 8721, 8723, 9232, 9233, 9459, 9460, 9461, 9539, 9601, 9603, 9728, 9761, 9762, 9940, 9941, 9942, 9943, 9945, 10018, 10020, 10021, 10022, 10023, 10024, 10025, 10026, 10027, 10028, 10033, 10034, 10079, 10282, 10411, 5739, 5939, 6170, 7910, 8105, 9542, 9607, 9608, 9954**

* + - 1. **Moved by Laurent Cariou, Seconded by Chittabrata Ghosh.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #321 (MU): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification as in 11-17/0935r4.**

**CIDs: 6106, 9571, 10173**

* + - 1. **Moved by Stephane Baron, Seconded by Kiseon Ryu.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #322 (MU): Move to accept the proposed comment resolution to the following CIDs as in 11-17/1059r0.**

**CIDs: 5850, 5858, 6709, 9448**

* + - 1. **Moved by Jeongki Kim, Seconded by Kiseon Ryu.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #323 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-17/0650r2.**

**CIDs: 3556 and 3558**

* + - 1. **Moved by Bo Sun, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #324 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification for clause 28.1.1 as in 11-17/0902r0.**

**CIDs: 7045, 7217, 7218, 4936, 4937, 5233, 5235, 5241, 8636 and 8731**

* + - 1. **Moved by Lochan Verma, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #325 (PHY): Move to accept the proposed comment resolution to the following CID and the corresponding spec text modification as in 11-17/0946r0.**

**CID: 3095**

* + - 1. **Moved by Yujin Noh, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #326 (PHY): Move to accept resolutions to CIDs 4966, 4967, 5249, 8078, 8599, 8600, 8601, 9788, 9789 in doc 11-17/1066r1.**
       1. **Moved by Youhan Kim, Seconded by Bin Tian.**
       2. **Discussion: No discussion.**
       3. **Result: Motion was accepted with no objection.**
    2. **CR Motion #327 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification in Clause 28.3.3.10 and 28.3.3.2 as in 11-17/0973r1.**

**CIDs: 4979, 8602, 8609, 10388**

* + - 1. **Moved by Kiseon Ryu, Seconded by Bo Sun.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #328 (PHY): Move to accept the proposed comment resolution to the following 28 CIDs and the corresponding spec text modification in Clause 28.3 as in 11-17/0986r2.**

**CIDs: 4863, 4963, 4964, 5040, 7503, 7850, 8597, 8784, 8785, 8786, 8787, 8788, 8789, 8790, 8791, 8792, 8793, 8794, 8795, 8796, 8797, 9781, 9782, 9783, 9784, 10370, 10371, 10372**

* + - 1. **Moved by Bo Sun, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #329 (PHY): Move to accept the proposed comment resolution to the following 15 CIDs and the corresponding spec text modification for clause 28.3.3.8 as in 11-17/0945r2.**

**CIDs: 8815, 8816, 8817, 9320, 4976, 8819, 7423, 10384, 10386, 8821, 7509, 7510, 10104, 10387 and 8822**

* + - 1. **Moved by Yujin Noh, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #330 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification for clause 28.3.14.3 as in 11-17/0902r1.**

**CID: 7832**

* + - 1. **Moved by Lochan Verma, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #331 (PHY): Move to accept the proposed comment resolution to the following CIDs and all the proposed spec text modification as in 11-17/0961r5.**

**CIDs: 6923 and 9775**

* + - 1. **Moved by Lochan Verma, Seconded by Bin Tian.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**

**Notes, CID 6923 belong to Editor adhoc and CID 9775 belongs to MAC adhoc as in current database. But the original assignees of these two CIDs prefer to transfer these two CID to PHY adhoc.**

* + 1. **CR Motion #332 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification to 11ax D1.3 as in 11-17/1006r2.**

**CIDs: 5253, 8837, 9548, 10394, 10113, 6113, 9221, 9226, 9497, 4920, 4921, 4922, 5265, 5266, 5267, 5268, 5269, 5283, 7047, 8428, 8834, 8835, 8836, 8938, 8939, 8941, 8942, 8965, 9031, 9755, 10216, 10317 and 10416**

* + - 1. **Moved by Sigurd Schelstraete, Seconded by Bo Sun.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #333 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification in Clause 28.3 as in 11-17/0985r4.**

**CIDs: 5788 and 8571**

* + - 1. **Moved by Bin Tian, Seconded by Bo Sun.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**

**Note: The two CIDs belong to the MU ad hoc in the spreadsheet**

* + 1. **CR Motion #334 (PHY): Move to accept the proposed comment resolution to the following CIDs and the corresponding spec text modification in Clause 28.3 as in 11-17/0993r1.**

**CIDs: 9169, 9170, 9171, 9082, 9173, 9176, 10163, 7433, 7436, 8994, 8995, 10048, 8996, 9013**

* + - 1. **Moved by Hongyuan Zhang, Seconded by Bo Sun.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #335 (PHY): Move to accept resolutions to CIDs; 4718, 4719, 6938, 6939, 7296, 7297 in doc 11-17/0711r4.**
       1. **Moved by Alfred Asterjadhi, Seconded by Bin Tian.**
       2. **Discussion: No discussion.**
       3. **Result: Motion was accepted with no objection.**
    2. **CR Motion #336 (PHY): Move to accept the proposed comment resolution to CID 9021 and the corresponding spec text modification in Clause 28.3.12 as in 11-17/1007r0.**
       1. **Moved by Sigurd Schelstraete, Seconded by Bo Sun.**
       2. **Discussion: No discussion.**
       3. **Result: Motion was accepted with no objection.**
    3. **CR Motion #337 (PHY): Move to accept the proposed comment resolution to CID 5255 and the corresponding spec text modification in Clause 28.3 as in 11-17/0993r2.**
       1. **Moved by Hongyuan Zhang, Seconded by Bin Tian.**
       2. **Discussion: No discussion.**
       3. **Result: Motion was accepted with no objection.**
  1. **MAC Motions**
     1. **MAC Motion #112: Move to instruct the editor to perform the changes in 1088r0.**
        1. **Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.**
        2. **Discussion: A member asked for the result of straw poll in the ad hoc. 🡪 It was unanimous consent.**
        3. **Result: Motion was accepted with no objection.**
  2. **CR Motions (MAC)**
     1. **CR Motion #338 (MAC): Move to accept resolutions to following CID in 11-17-0926-03-00ax-cr-he-mcs-nss-not-supported.**

**CID(s): 9674**

* + - 1. **Moved by Matthew Fischer, Seconded by Sai Shankar Nandagopalan.**
         1. **Discussion: A member asked for the difference between rev 2 and rev 3 of this document. 🡪 Bit assignment HE MCS and Nss, etc.**
      2. **Result: Motion was accepted with no objection.**
    1. **CR Motion #339 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1052-04-00ax-mac-cr-he-mcs-nss-resolutions.**

**CID(s): 4769, 4770, 4932, 5519, 5520, 5525, 5526, 5527, 5528, 5529, 5530, 5531, 5532, 5533, 5534, 5535, 5536, 5537, 5790, 5920, 7560, 7993, 8678, 8679, 8680, 9303, 6433, 8348 (28 CIDs)**

* + - 1. **Moved by Alfred Asterjadhi, Seconded by Suhwook Kim.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #340 (MAC): Move to accept resolutions to following CIDs in doc 11-17-0957-03-00ax-lb225-mac-cr-on-fragmentation.**

**CID(s): 5361, 5470, 5362, 5927, 8443, 8444, 7075, 7535, 8454, 8456, 9523, 8442, 8455 (CIDs 13)**

* + - 1. **Moved by Alfred Asterjadhi, Seconded by Suhwook Kim.**
      2. **Discussion:**
         1. **A member asked for the difference between this document and the previous revision of this document. 🡪 Instruction to the editor.**
         2. **One of the members mentioned that this is not ready for motion.**
      3. **Result: Y/N/A = 19/1/8, motion passes.**
    1. **CR Motion #341 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1002-03-00ax-lb225-mac-cr-on-hcf.docx.**

**CID(s): 6034, 5861, and 5853.**

* + - 1. **Moved by Suhwook Kim, Seconded by Kiseon Ryu.**
      2. **Discussion: A member asked for the difference between this document and the previous version of this document. 🡪 CID 5374 is out.**
      3. **Result: Motion was accepted with no objection.**

**Note: CID 5374 is deferred.**

* + 1. **CR Motion #342 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1014-00-00ax-lb225-cr-on-association-exchange-using-dl-ofdma.docx.**

**CID(s): 4800.**

* + - 1. **Moved by Stephane Baron, Seconded by Alfred Asterjadhi.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #343 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1032-03-00ax-cids-in-27-5-2.docx.**

**CID(s): 9901, 5937, 5715, 6066, 9905, 6681, 9530, 9531, 8110, 8060, 9910, 5716, 6067, 9908, 9532, 9909, 7815, 8558.**

* + - 1. **Moved by Abhishek Patil, Seconded by Robert Stacy.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #344 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1062-01-00ax-cid-9958.docx.**

**CID(s): 9958.**

* + - 1. **Moved by Abhishek Patil, Seconded by Kiseon Ryu.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #345 (MAC): Move to accept resolutions to following CIDs in doc 11-17-0533-05-00ax-lb225-cr-27-16-1.docx.**

**CID(s):　5229, 5522, 5523, 5524, 7576, 7577, 7578, 7579, 7580, 8618, 8619, 8620, 9967.**

* + - 1. **Moved by Abhishek Patil, Seconded by Chau-Chun Wang.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #346 (MAC): Move to accept resolutions to following CIDs in doc 11-17-0925-06-00ax-cr-on-he-duration-based-rts.**

**CID(s):　 3136, 4834, 5159, 5161 , 5162, 5557, 5560, 5568, 6514, 6515, 7530, 7779, 7781, 7872, 7873, 8208, 8209, 8349, 8350, 8451, 9422, 9686.**

* + - 1. **Moved by Sigurd Schelstraete, Seconded by Chau-Chun Wang.**
      2. **Discussion:** 
         1. **A member asked to defer this motion. 🡪 The mover still wants to go with this motion.**
         2. **Another member mentioned that there is a significant mistake.**
      3. **Motion to table: Move to table the motion until later this afternoon.**
         1. **Moved by Sigurd Schelstraete, Seconded by Mark Rison.**
         2. **Result: Motion to table accepted with no objection.**
         3. **The motion was brought back @ 14:52 in the same afternoon**

**Discussion:**

**A member commented that there is a sentence which does not make sense. Suggested removal of the sentence.**

* + - * 1. **Motion was withdrawn by the mover.**
    1. **CR Motion #347 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1023-01 -00ax-lb225-cr-27-11-3.docx.**

**CID(s):　5212, 8727, 8726.**

* + - 1. **Moved by Chau-Chun Wang, Seconded by Alfred Asterjadhi.**
      2. **Discussion: No discussion.**
      3. **Result: Motion was accepted with no objection.**
    1. **CR Motion #348 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1031-05-00ax-remaining-cids-for-27-5-2-7.docx.**

**CID(s):　4805, 5811, 6713, 6714, 6715, 6716, 6717, 6718, 6719, 6720, 7108, 7389, 8283, 8284, 8559, 8707, 9450, 9477, 9534, 9715, 9920, 10275.**

* + - 1. **Moved by Robert Stacy, Seconded by Bo Sun.**
      2. **Discussion:**
         1. **A member suggested deferral of this motion.**
         2. **Another member commented that this is the dangerous way to proceed. Removal of CID is not good.**
      3. **Result: Y/N/A = 27/0/5, motion passes.**
    1. **CR Motion #349 (MAC): Move accept resolutions to following CIDs in doc 11-17-0693-05-00ax-quiet-time-period-part-1.**

**CID(s): 3038.**

* + - 1. **Moved by Chao-Chun Wang, Seconded by James Yee.**
      2. **Discussion:**
         1. **A member raised an issue which is not really addressed.**
         2. **The mover mentioned that the instruction to the editor is not clear enough and being removed from r5.**
         3. **The previous commenter is not happy with the way to proceed.**
      3. **Result: Y/N/A = 18/3/22, motion passes.**
    1. **CR Motion #350 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1044-01-00ax-crs-for-ack-related-cids.docx.**

**CID(s): 3047, 3130, 4602, 5048, 5567, 5763, 6128, 6129, 6130, 6173, 6510, 7061, 7063, 7136, 7383, 7665, 8413, 8414, 8542, 9675, 9684, 9685, 9854.**

* + - 1. **Moved by George Cherian, Seconded by Abhishek Patil.**
      2. **Discussion: No discussion.**
      3. **Result: The motion was accepted with no objection.**
    1. **CR Motion #351 (MAC): Move to accept resolutions to following CIDs in doc 11-17-0759-04-00ax-comment-resolution-on-cid-9333-and-9969.**

**CID(s): 3215, 9333, and 9969.**

* + - 1. **Moved by Jason Yuchen Guo, Seconded by**
      2. **Result: The motion was deferred.**
    1. **CR Motion #352 (MAC): Move to accept resolutions to following CIDs in doc 11-17-1077-01-00ax-cr-for-10-3-2-4-and-27-2-2-part-iii.docx.**

**CID(s): 5384, 8403, 6177, 7160, 9381, and 9414.**

* + - 1. **Moved by Po-Kai Huang, Seconded by Kiseon Ryu**
      2. **Result: The motion was accepted with no objection.**
    1. **CR Motion #353 (MAC): Move to accept resolution to CID 9574 in doc 11-17/0702r3.**
       1. **Moved by Bo Sun, Seconded by Yonggang Fang**
       2. **Result: The motion was accepted with no objection.**
    2. **CR Motion #354 (MAC): Move to accept resolutions to CIDs 6189, 7040, 9412 in doc 11-17/0088r5.**
       1. **Moved by Woojin Ahn, Seconded by John Son**
       2. **Result: Y/N/A = 11/0/20, motion passes.**
    3. **CR Motion #355 (MAC): Move to accept resolutions to CIDs 4795, 5696, 6031, 7606, 7607, 7608, 7609, 9731, 9948, 9949, 9950, 9951, 9952 in doc 11-17/0688r4.**
       1. **Moved by Chittabrata Ghosh, Seconded by Kiseon Ryu.**
       2. **Result: The motion was accepted with no objection.**
    4. **CR Motion #356 (MAC): Move to accept resolutions to CIDs 6478, 7537, 7937, 8138, 9348, 10318 in doc 11-17/0884r1.**
       1. **Moved by Liwen Chu, Seconded by Bin Tian.**
       2. **Result: Y/N/A = 24/0/6, motion passes.**
    5. **CR Motion #357 (MAC): Move to accept resolutions to CIDs 3003, 5428, 5429, 5430, 6002, 7705 and 10190 in doc 11-17/0606r0.**
       1. **Moved by Yasuhiko Inoue, Seconded by Suhwook Kim.**
       2. **Result: Y/N/A = 27/0/7, motion passes.**
    6. **CR Motion #358 (MAC): Move to accept resolutions to the following CIDs in 11-17/1058r8.**

**CID(s): 7698, 5091, 5116, 5423, 6927, 7699, 8641, 8173, 7697, 3000, 3101, 5039, 5117, 6928, 6929, 7007, 7290, 8536, 7013, 7700, 8014, 3001, 5884, 6930, 7291, 8537, 5118, 3150, 5119, 5687, 7701, 10183, 10338, 3293, 3343, 3579, 3660, 4009, 4096, 7378, 5279, 5424, 5730, 7464, 10184, 5815, 5731, 7465, 9613, 6071, 8364, 10185, 4896, 3149, 9616, 5120, 5121, 6233, 8341, 7702, 7466, 9614, 9248, 9615, 7467, 3002, 7468, 4714, 10187, 10188, 9249, 5733, 6235, 5425, 6232, 6234, 7293, 7703, 4713, 9246.**

* + - 1. **Moved by Guoqing Li, Seconded by Jarkko Kneckt.**
      2. **Result: Y/N/A = 35/1/5, motion passes.**

1. **Goals for September**
   1. **Continue and complete the resolution of comments on draft D1.0.**
   2. **Prepare draft D2.0 and plan for WG letter ballot.**
2. **Teleconference schedule**
   1. **Slide 42 of the agenda file contains the teleconference**
   2. **Already approved**
      1. **July 20th: 10:00 – 12:00 ET**
   3. **New set of teleconferences**
      1. **August 3, August 17, August 31, September 28: 20:00 – 22:00 ET**
      2. **July 27, August 10, August 24, September 21: 10:00 – 12:00 ET**
3. **Recess**
   1. TGax is in recess until 16:00 today (@15:28).

**Thursday, May 11th, 2017, PM2 TGax full Session (16:00-18:00)**

1. **Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of the TGax, @16:00.**
   1. Agenda 17/0887r5 is on the server. Rev. 6 is the working document.
   2. Introduction of front table.
2. **Announcement/Reminder**
   1. Chair reminded IEEE 802 and 802.11 IPR P&P.
   2. Chair asked people to state name and affiliation when addressing for the first time in the session.
   3. Chair reminded people to do attendance.
3. **Agenda for this session**
   1. Thursday PM1 and PM2 – as approved during PM1 session today.
      1. Call Meeting to order
      2. Agenda Setting
      3. Announcement/Reminder
         1. IEEE 802 and 802.11 IPR Policy and procedure.
         2. Attendance
      4. September ad hoc meeting motion
      5. TG Motions
      6. Goals for September 2017
      7. Teleconferences schedule
      8. Presentations
         1. Motion left from PM1
         2. CR-related submissions
         3. 11-17/1144, “Ack Policy in BlockAckReq” – Robert Stacey
      9. Adjourn
   2. Chair asked if there are any modifications to the agenda. 🡪 No response.
4. **TG Motion**
   1. **Motion left from PM1 – CR Motion #359: Move to accept resolutions to following CIDs in doc 11-17-0925-09-00ax-cr-on-he-duration-based-rts/CIDs**

**CID(s): 3136, 4834, 5159, 5161 , 5162, 5557, 5560, 5568, 6514, 6515, 7530, 7779, 7781, 7872, 7873, 8208, 8209, 8349, 8350, 8451, 9422, and 9686.**

* + 1. **Moved by Huizhao Wang, Seconded by Mark Rison.**
    2. **Discussion**
       1. **A member asked for the revision number of the document. 🡪 It’s r7. The commenter discussed about the TDLS case of this mechanism.**
       2. **Another member mentioned that for an associated STA in a BSS, AP can control the use of RTS/CTS mechanism.**
       3. **The previous commenter suggested further modification to the document.**
       4. **People discussed the normative sentence in 10.3.5.**
       5. **Straw poll: Who supports deleting this sentence? 🡪 Y/N = 5/1.**
          1. **The sentence is deleted.**
    3. **Rev 8 is on the server.**
    4. **Discussion continued**
       1. **Another member is concerned by the change of baseline text. It will be good to have more time to think about this for safety reason. 🡪 Chair suggested offline discussion.**
    5. **Presenter updated the submission with the removed text back 🡪 r9.**
       1. **A member is still concerned and speak against it.**
    6. **Result: Y/N/A = 16/7/15, motion fails.**

1. **CR Presentations**
   1. **Kaiying Lv (ZTE) presented “Proposed resolution for CIDs for 27-2-1,” based on the submission 11-17-0389-07.**
      1. Summary
         1. Proposed resolutions for multiple comments related to TGax D1.0 with the following CIDs:
            1. CID(s): - 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, 9747, 9872, 9873, 10007, 10171, 10241, 10242, 10243, 10244, 5453, 7162, 9438.
         2. Kaiying goes through the document highlighting the changes from the previous version.
      2. Discussion
         1. A member commented that the order of classification should be improved.
         2. Another member suggested the structure of classifying the Inter- or Intra-BSS frame.
      3. Next step:
   2. **Alfred Asterjadhi (Qualcomm) presented “Comment resolutions for remaining CIDs in OM Control,” based on the submission 11-17-1053-01.**
      1. Summary
         1. Proposed resolutions for multiple comments related to TGax D1.0 with the following CIDs:
            1. CID(s): 5851, 7249, 9803, 7192 (4 CIDs).
         2. The presenter goes through the document highlighting the changes from previous version of this document.
      2. Discussion
         1. No discussion.
      3. **CR Motion #360: Move to accept resolutions to CIDs 5851, 7249, 9803, 7192 in doc 11-17/1053r2.**
         1. **Moved by Alfred Asterjadhi, Seconded by Jarkko Kneckt.**
         2. **Discussion: No discussion.**
         3. **Result: Y/N/A = 25/0/10, motion passes.**
   3. **Jarkko Kneckt (Apple) presented “Comment Resolution on TIM Broadcast,” based on the submission 11-17-0811-01.**
      1. Summary
         1. Proposed resolutions of comments received from TGax comment collection (TGax Draft 1.0) regarding TIM Broadcasting.
            1. CID(s): 5973 and 9870
      2. Discussion: No discussion.
      3. **CR Motion #361 (MAC): Move to accept resolutions to CIDs 5973 and 9870 in doc 11-17/0811r1.**
         1. **Moved by Jarkko Kneckt, Seconded by Guoqing Li.**
         2. **Discussion**
            1. **A member mentioned that some resolutions are technically incorrect.**
         3. **Result: Y/N/A = 7/9/21, motion fails.**
   4. **Jarkko Kneckt (Apple) presented “OMI comment resolutions,” based on the submission 11-17-1072-01.**
      1. Summary
         1. Proposed resolutions for the following five comments regarding OMI.
            1. CID(s): 4784, 7404, 7613, 9938 and 9724.
      2. Discussion
         1. A member discussed the relation between BQR and OMI.
         2. People discussed the benefit of AP to have this mechanism.
      3. **CR Motion #362 (MAC): Move to accept resolution to CIDs 4784, 7404, 7613, 9938 and 9724 in doc 11-17/1072r2.**
         1. **Moved by Jarkko Kneckt, Seconded by Alfred Asterjadhi.**
         2. **Discussion: No discussion**
         3. **Result: Y/N/A = 26/0/10, motion passes.**
   5. **Alfred Asterjadhi (Qualcomm) presented “11ax D1.0 MAC Comment Resolution for 9.3.1.23.2/5,” based on the submission 11-17-1082-01.**
      1. Summary
         1. Proposed resolutions for the following CIDs on TGax draft 1.0:
            1. CID(s): 3169, 3171, 8191, 8192, 8193, and 9494.
      2. Discussion
         1. People discussed the Trigger Type subfield. As the result of discussion, Resolutions for CIDs 3169 and 3171 are changed from “Revised” to “Rejected”. 🡪 Alfred uploaded r2 of this document.
      3. **CR Motion #363 (MAC): Move to accept resolutions to CIDs 3169, 3171, 8191, 8192, 8193, 9494 in doc 11-17/1082r2.**
         1. **Moved by Alfred Asterjadhi, Seconded by Kiseon Ryu.**
         2. **Discussion: No discussion.**
         3. **Result: The motion was accepted with no objection.**
2. **AoB**
   1. **One minute to go.**
   2. **Chair asked if there is any objection to adjourn. 🡪 No objection.**
3. **Adjournment**
   1. TGax adjourned for the week @ 18:00.