IEEE P802.11
Wireless LANs

TGax January 2018 Irvine meeting minutes

Date: 2018-02-14

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Abstract

This document contains minutes of TGax January 2018 Irvine meeting minutes.

Minutes of each ad hoc group is contained in a separate document:

- PHY ad hoc
  - 11-18-0255-00, Jan 2018 Irvine Interim PHY Ad Hoc Meeting Minutes
- MAC and MU ad hoc
  - 11-18-0245-00, Jan 2018 TGax MAC/MU Ad hoc Meeting Minutes
- SR ad hoc
  - 11-18-0239-00, Minutes of the January 2018 meeting of the IEEE 802.11ax Spatial Reuse ad hoc group

Rev. 0: Initial version.

SAMSUNG 1127
Samsung v. Wilus
IPR2025-01110

Monday, January 15th, 2018, 13:30 – 15:30, TGax full session

1 Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 13:31 (local time).

1.1 Introduction of the front table
- 1.1.1 Chair: Osama Aboul-Magd (Huawei Technologies).
- 1.1.2 Vice-chair: Ron Porat (Broadcom Ltd.)
- 1.1.3 Secretary: Yasuhiko Inoue (NTT)

2 Agenda Setting

2.1 Proposed Agenda for this session
- 2.1.1 Call meeting to order
- 2.1.2 IEEE-SA IPR policy and Procedure
- 2.1.3 Call for submissions
- 2.1.4 Summary from November 2017 meeting
- 2.1.5 TG motions
  - 2.1.5.1 Approve TG meeting and Telecon minutes since November 2017 meeting.
- 2.1.6 Timeline
- 2.1.7 Editor Report – Robert Stacey
- 2.1.8 March 2018 TGax ad hoc meeting
- 2.1.9 Presentations and Comment Resolution
- 2.1.10 Recess

2.2 Chair asked if there is any objection to accept this agenda. → No objection.
- 2.2.1 The agenda was approved.

3 IEEE 802 and 802.11 IPR Policy and Procedure

3.1 Chair read the 5 slides of IEEE 802 Policies and Procedures.
- 3.1.1 Participants have a duty to inform the IEEE
- 3.1.2 Ways to inform IEEE
- 3.1.3 Other guidelines for IEEE WG meetings
- 3.1.4 Patent-related information
- 3.1.5 Participation in IEEE 802 Meetings

3.2 Chair asked if there is any potentially essential patent that people are aware of.
- 3.2.1 No potentially essential patent reported.

4 Announcement

4.1 Chair asked people to announce name and affiliation when addressing for the first time during a meeting slot.

4.2 Chair reminded people to do attendance.

5 Call for submissions

5.1 MAC submissions – 46 submisssions
- 5.1.1 11-17-1837, "11ax D2.0 Comment Resolution 27.5.3.5," Liwen Chu (Marvell Semiconductors)
- 5.1.2 11-17-1847, "CIDs related to Multiple BSSID topic – Part 1," Abhishek Patil (Qualcomm)
- 5.1.3 11-17-1850, "Resolution for CIDs in 9.4.2.37," Abhishek Patil (Qualcomm)
- 5.1.4 11-17-1857, "CIDs related to Multiple BSSID topic – Part 2," Abhishek Patil (Qualcomm)
- 5.1.5 11-17-1858, "Resolution for CID 13142," Abhishek Patil (Qualcomm)
- 5.1.6 11-17-1859, "Resolution for CID 11742," Abhishek Patil (Qualcomm)
- 5.1.7 11-17-1861, "CIDs related to Multiple BSSID topic – Part 3," Abhishek Patil (Qualcomm)
- 5.1.8 11-17-1874, "11ax D2.0 MAC Comment Resolution for NAV Part I," Po-Kai Huang (Intel)
- 5.1.9 11-17-1893, "CR TWT IE," Matthew Fischer (Broadcom Ltd.)
- 5.1.10 11-18-0009, "LB230 MAC CR 10.22.2.4," Alfred Asterjadhi (Qualcomm)

5.1.11 11-18-0010, “LB230 MAC CR 26.8.36,” Alfred Asterjadhi (Qualcomm)
5.1.12 11-18-0012, “LB230 MAC CR 27.15.2,” Alfred Asterjadhi (Qualcomm)
5.1.13 11-18-0013, “LB230 MAC CR 27.15.3,” Alfred Asterjadhi (Qualcomm)
5.1.14 11-18-0014, “LB230 MAC CR 27.15.4,” Alfred Asterjadhi (Qualcomm)
5.1.15 11-18-0015, “LB230 MAC CR 27.17,” Alfred Asterjadhi (Qualcomm)
5.1.16 11-18-0027, “Ack related CIDs Section 27.4,” George Cherian (Qualcomm)
5.1.17 11-18-0035, “OMI Comment Resolutions,” Jarkko Kneckt (Apple)
5.1.18 11-18-0039, “LB230 MAC CR 10.22.2.5,” Alfred Asterjadhi (Qualcomm)
5.1.19 11-18-0040, “LB230 MAC CR-10.22.2.6-9,” Alfred Asterjadhi (Qualcomm)
5.1.20 11-18-0041, “LB230 MAC CR-11.24,” Alfred Asterjadhi (Qualcomm)
5.1.21 11-18-0044, “LB230 MAC CR-27.7 and 27.7.1,” Alfred Asterjadhi (Qualcomm)
5.1.22 11-18-0055, “CR CID 14324,” Zhou Lan (Broadcom Ltd.)
5.1.23 11-18-0066, “Resolution for CIDs in 9.4.2.245,” Abhishek Patil (Qualcomm)
5.1.24 11-18-0068, “Resolution for CID 11374,” Abhishek Patil (Qualcomm)
5.1.25 11-18-0074, “11ax D2.0 Comment Resolution 27.5.3.2.4 10.22.2.7, ” Liwen Chu (Marvell)
5.1.26 11-18-0075, “11ax D2.0 comment resolution 27.5.3.2.2,” Liwen Chu (Marvell)
5.1.27 11-18-0076, “11ax D2.0 comment resolution 27.5.3.2.3,” Liwen Chu (Marvell)
5.1.28 11-18-0077, “11ax D2.0 comment resolution 27.4.2,” Liwen Chu (Marvell)
5.1.29 11-18-0078, “11ax D2.0 comment resolution 27.6.4,” Liwen Chu (Marvell)
5.1.30 11-18-0081, “11ax D2.0 MAC Comment Resolution for HE link adaptation,” Frank Hsu (MediaTek)
5.1.31 11-18-0082, “LB230 CR for BSS Load Slides,” Frank Hsu (MediaTek) – not on the server
5.1.32 11-18-0083, “LB230 CR for BSS Load Text,” Frank Hsu (MediaTek) – not on the server
5.1.33 11-18-0088, “CR CID 14349,” Zhou Lan (Broadcom Ltd.) – not on the server
5.1.34 11-18-0090, “CR for Opportunistic power save,” Laurent Carious (Intel)
5.1.35 11-18-0098, “LB230 CR on CIDs 12757, 11149 and 13675,” Ming Gan (Huawei Technologies)
5.1.36 11-18-0099, “LB230 CR on Fragmentation - Part 1,” Ming Gan (Huawei Technologies)
5.1.37 11-18-0105, “LB230 CR Multi-TID Capability Indication,” Yongho Seok (MediaTek)
5.1.38 11-18-0107, “LB230 CR 20MHz only STA on Secondary Channel,” Yongho Seok (MediaTek) – not on the server
5.1.39 11-18-0149, “CR for 27.5.6,” Laurent Cariou (Intel) – not on the server
5.1.40 11-18-0153, “Resolution for CID 11742,” Po-Kai Huang (Intel)
5.1.41 11-18-0155, “Resolutions for CIDs related to GCR,” Yusuke Tanaka (Sony)
5.1.42 11-18-0161, “CR of CID 13754,” Zhou Lan (Broadcom Ltd.)
5.1.43 11-18-0180, “,” Ming Gan (Huawei Technologies) – not on the server
5.1.44 11-18-0181, “,” Ming Gan (Huawei Technologies) – not on the server
5.1.45 11-18-0182, “11ax D2.0 MAC Comment Resolution for CID 18555,” Guoqing Li (Apple)
5.1.46 11-18-0200, “Decouple Channel Width Capabilities between VHT and HE PHY Mode,” Huizhao Wang (Quantenna Communications)

5.2 MU submissions – 21 submissions

5.2.1 11-17-1828, “CR for MU EDCA parameters,” Laurent Cariou (Intel)
5.2.2 11-17-1849, “CIDs related to Random Access – Part 1,” Abhishek Patil (Qualcomm)
5.2.3 11-17-1860, “Resolution for CID 11002,” Abhishek Patil (Qualcomm)
5.2.4 11-17-1878, “11ax D2.0 MAC Comment Resolution for NAV Part II,” Po-Kai Huang (Intel)
5.2.5 11-17-1887, “,” Liwen Chu (Marvell Semiconductors) - not on the server
5.2.6 11-18-0008, “LB230-MAC-CR-9.3.1.20,” Alfred Asterjadhi (Qualcomm)
5.2.7 11-18-0011, “Comment resolutions for 27.5.3.4,” Alfred Asterjadhi (Qualcomm)
5.2.8 11-18-0029, “Default UORA Parameters,” Matthew Fischer (Broadcom Ltd.)
5.2.9 11-18-0030, “ER DL Protection Sequence,” Matthew Fischer (Broadcom Ltd.) – not on the server
5.2.10 11-18-0031, “BQRP BQR LCTS DL MU,” Matthew Fischer (Broadcom Ltd.)
5.2.11 11-18-0042, “Comment resolutions for 27.6.2,” Alfred Asterjadhi (Qualcomm)
5.2.12 11-18-0043, “Comment resolutions for 27.6 and 27.6.1,” Alfred Asterjadhi (Qualcomm)
5.2.13 11-18-0053, “CR of BQR (on D2.0),” Zhou Lan (Broadcom Ltd.)

5.2.14 11-18-0054, “CR of DL MU procedure (D2.0),” Zhou Lan (Broadcom Ltd.)
5.2.15 11-18-0056, “CR of CID 14328,” Zhou Lan (Broadcom Ltd.)
5.2.16 11-18-0063, “CR on UORA Power Saving,” Jeongki Kim (LG Electronics)
5.2.17 11-18-0065, “Resolution for CIDs in 9.3.1.23,” Abhishek Patil (Qualcomm)
5.2.18 11-18-0079, “Comment Resolutions on Clause 28.3.15 (SU-MIMO and DL MU-MIMO beamforming),” Kome Oteri (InterDigital)
5.2.19 11-18-0080, “Comment Resolutions on Clause 9.4.1.63 D2.0 (HE Compressed Beamforming Report field),” Kome Oteri (InterDigital)
5.2.20 11-18-0108, “CIDs for: Section 27.5.3.6 HE buffer status feedback operation for UL MU,” Kiseon Ryu (LG Electronics)
5.2.21 11-18-0185, “CR of CID 11001,” Zhou Lan (Broadcom)

5.3 SR submissions – 3 submissions

5.3.1 11-17-1852, “CR for 27.9,” Laurent Cariou (Intel)
5.3.2 11-18-0026, “CR SRG and SRP,” Matthew Fischer (Broadcon Ltd.)
5.3.3 11-18-0105, “LB230 CR Spatial Reuse,” Yongho Seok (MediaTek)

5.4 PHY submissions – 27 submissions

5.4.1 11-18-0006, “Misc CR,” Ross Jian Yu (Huawei Technologies)
5.4.2 11-18-0023, “Changes to D2.0 Clause 28.2.5, 28.2.6,” Xiaogang Chen (Intel)
5.4.3 11-18-0024, “Changes to D2.0 Clause 28.3.5,” Xiaogang Chen (Intel)
5.4.4 11-18-0025, “Proposed Changes to D2.0 Clause 28.3.6,” Xiaogang Chen (Intel)
5.4.5 11-18-0028, “Proposed Changes to D2.0 on the HE TB NDP feedback,” Xiaogang Chen (Intel)
5.4.6 11-18-0036, “Comment Resolutions on PHY INTRODUCTION Part 1,” Lochan Verma (Qualcomm)
5.4.7 11-18-0037, “Comment Resolutions on PHY INTRODUCTION Part 2,” Lochan Verma (Qualcomm)
5.4.8 11-18-0038, “Comment Resolutions on HE-SIG-A Part 1,” Lochan Verma (Qualcomm)
5.4.9 11-18-0046, “Comment Resolutions on PHY INTRODUCTION Part 3,” Lochan Verma (Qualcomm)
5.4.10 11-18-0050, “CR on HE-SIG-B part 1,” Yujin Noh (Newracom)
5.4.11 11-18-0051, “CR on HE-SIG-B part 2,” Yujin Noh (Newracom)
5.4.12 11-18-0057, “D2.0 PHY Comment Resolution,” Youhan Kim (Qualcomm)
5.4.13 11-18-0058, “Comment Resolutions on Midamble,” Hongyuan Zhang (Marvell Semiconductors)
5.4.14 11-18-0059, “PPE Threshold Field,” Hongyuan Zhang (Marvell Semiconductors)
5.4.15 11-18-0079, “Comment Resolutions on Clause 28.3.15 (SU-MIMO and DL MU-MIMO beamforming),” Kome Oteri (InterDigital)
5.4.16 11-18-0080, “Comment Resolutions on Clause 9.4.1.63 D2.0 (HE Compressed Beamforming Report field),” Kome Oteri (InterDigital)
5.4.17 11-18-0109, “11ax Comment Resolutions for PHY mathematical descriptions,” Yan Zhang (Marvell Semiconductors)
5.4.18 11-18-0110, “11ax Comment Resolutions for PHY Preamble,” Yan Zhang (Marvell Semiconductors)
5.4.19 11-18-0111, “11ax Comment Resolutions for PHY Data field,” Yan Zhang (Marvell Semiconductors)
5.4.20 11-18-0118, “PHY Comment Resolution,” Ron Porat (Broadcom Ltd.)
5.4.21 11-18-0136, “Comment Resolutions for Clause 28.2.2 (TXVECTOR and RXVECTOR parameters) Part 1,” Bo Sun (ZTE)
5.4.22 11-18-0150, “CR for CIDs related to HE ER SU PPDU,” Tianyu Wu (Samsung)
5.4.23 11-18-0151, “CR for PHY PPDU formats,” Tianyu Wu (Samsung) – not on the server
5.4.24 11-18-0159, “Comment resolution on CIDs on Clause 28.3 Part 1,” Jianhan Liu (MediaTek)
5.4.25 11-18-0162, “LB230 CR on CID 12060 and 13047,” Ming Gan (Huawei Technologies)
5.4.26 11-18-0187, “Tx EVM for Beamformed Transmission,” Bin Tian (Qualcomm) – not on the server

5.4.27 11-18-0230, "Misc CR Follow up," Ross Jian Yu (Huawei Technologies)

6 General flow of the ad hoc meeting

6.1 Slides 13 and 14 contain the general flow of the TGax session.
6.2 Nine sessions are planned for TGax.
6.3 Ad hoc session slots:
6.3.1 MAC/MU: 5 slots
6.3.2 PHY: 4 slots
6.3.3 SR: 1 slot

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

7 Summary from the November meeting

7.1 The TG started addressing comments received on draft D2.0.
7.2 35+ comments were resolved during the November meeting.
7.3 No much activities on the conference calls.
7.4 Since November the TG has arranged a MAC and a PHY (one day) ad hoc meetings to advance comments resolution.
7.4.1 https://mentor.ieee.org/802.11/dcn/18/11-18-0007-04-00ax-tgax-january-2018-ad-hoc-meeting-agenda-mac-mu-sr.pptx
7.4.2 https://mentor.ieee.org/802.11/dcn/18/11-18-0112-01-00ax-tgax-jan-2018-ad-hoc-meeting-agenda-phy.pptx
7.5 A total of about 380 CIDs are resolved during the January 2018 ad hoc meeting.

8 TG Motion

8.1 **Approval of TG Minutes (November 2017 Meeting and Telecon Minute**
Approve TGax minutes of meetings and teleconferences from November 2017 Plenary meeting to today:

- **https://mentor.ieee.org/802.11/dcn/17/11-17-1727-01-00ax-tgax-november-2017-orlando-meeting-minutes.docx**
- **https://mentor.ieee.org/802.11/dcn/17/11-17-1845-02-00ax-tgax-teleconference-minutes-from-dec-2017-to-jan-2018.docx**

8.1.1 Moved by Robert Stacy, Seconded by Yasuhiko Inoue.
8.1.2 Discussion: No discussion.
8.1.3 Result: Motion was approved with no objection.

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9 Timeline

9.1 TG reviewed the timeline – no changes.

9.2 Current timeline
- 9.2.1 May 2014: start of the TG
- 9.2.2 Nov. 2014: First draft of the TG SFD was approved
- 9.2.3 Jan. 2016: proposed TG draft
- 9.2.4 March 2016: Draft D0.1 was approved and CC started
- 9.2.5 November 2016: Draft 1.0 and WG letter ballot – Failed (57.77%)
  - 9.2.5.1 LB-225: opened Dec. 1st 2016 and closed January 8th 2017
- 9.2.6 September 2017: Draft 2.0 and WG letter ballot – Failed (62.84%)
  - 9.2.6.1 LB-230: opened Oct 5th and closed Nov 4th, 2017
- 9.2.7 May 2018: Draft 3.0 and WG letter Ballot
- 9.2.8 July 2018: MDR (Mandatory Document Review)
- 9.2.9 February 2019: Formation of SB pool
- 9.2.10 May 2019: Sponsor Ballot
- 9.2.11 December 2019: RevCom

10 Editor's Report by Robert Stacy

10.1 Rebert Stacy (Intel), the TGax editor, gave updateson the D2.0.
- 10.1.1 D2.1 is on the member's area.
  - 10.1.1.1 About 700 comments owned by the editor are incorporated.

11 TGax March 2018 ad hoc meeting

11.1 Peter Ecclesine (Cisco Systems) kindly coordinates the TGax March 2018 ad hoc meeting from February 27th to March 1st, 2018 in San Jose area.

11.2 Details to be announced.

12 Comment Resolutions

12.1 Frank Hsu (MediaTek) presented "11ax D2.0 MAC Comment Resolution for HE Link Adapation," based on the submission 11-18-0081-01.

12.1.1 Summary
- 12.1.1.1 Resolutions for the following CIDs and changes to the spec text related to HE Link Adaptation are proposed.
  - 12.1.1.1.1 Relevant CIDs: 11457, 11544, 11743, 12436, 12550, 12551, 13172, 13173, 13174, 13175, 13759, 13813, 13860, 14144, 14145, 14146, 14147, 14148, 14149 (19 CIDs).
- 12.1.1.2 The original version of this document (r0) was presented during the ad hoc meeting.

12.1.2 Discussion
- 12.1.2.1 There were some editorial changes suggested.
- 12.1.2.2 A member mentioned that there is inconsistent text with HE Link Adaptation (D2.0, p.309). Need modification to be consistent.
- 12.1.2.3 Another member asked for justification for the critetrion of 10% PER for a 3895 octed frame. → NOTE was suggested.

12.1.3 Straw Poll: Do you accept resolutions to CIDs; 11457, 11544, 11743, 12436, 12550, 12551, 13172, 13173, 13174, 13175, 13759, 13813, 13860, 14144, 14145, 14146, 14147, 14148, 14149 in doc 11-18/0081r2?
- **12.1.3.1 Discussion:**
- **12.1.3.2 Result: No objection to proposed resolution.**

12.1.4 Next Step
- 12.1.4.1. The document 18/0081r2 is ready for motion.

12.2 Matthew Fischer (Broadcom Ltd.) presented "BQRP BQR LCTS DL MU," based on the submission 11-18-0031-00.

12.2.1 Summary

12.2.1.1 This is a new proposal

12.2.2 Discussion

12.2.2.1.1 People suggeste e.g., use of BQRP and other way to do the same thing, etc.

12.2.2.1.2 A member discussed potential issue of synchronization since this proposal introduces a new PHY mode.

12.2.2.1.3 Another member discussed recovery mechanism – basically a timeout based mechanism.

12.2.3 Straw Poll: Do you support the addition of a new subfield POLL-CTS to be added to the Common|User Info field of the Trigger frame and the addition of AP behavior rules and non-AP STA rules to accompany the subfield which elicits a non-HT CTS that is transmitted SIFS after the HE TB PPDU elicited by the Trigger?

12.2.3.1 Result: Y/N/A = 20/26/21.

12.2.4 Next Step

12.2.4.1 The document 18/0031 needs more offline discussions to reach consensus..

12.3 Po-Kai Huang (Intel) presented "Comment Resolution for NAV Part II," based on the submission 11-17-1875-01.

12.3.1 Summary

12.3.1.1 Resolutions for the comments on NAV and modifications to the texts are proposed.

12.3.1.2 This document was presented the the ad hoc last week and there are two CIDs remained.

12.3.1.3 The proposed resolutions for those CIDs are REJECT. Po-Kai confirmed that the commenters are okay with the resolution.

12.3.2 Discussion

12.3.2.1 .No discussion.

12.3.3 Straw Poll: Do you agree to resolutions to CIDs 12079 and 12461 in doc 11-17/1878r1?

12.3.3.1 Discussion: No discussion.

12.3.3.2 Result: Accepted with no objection

12.3.4 Next Step

12.3.4.1 The document 17/1850r1 is ready for motion.

13 AoB

13.1 We still have 15 minutes.

13.2 Room assignment for PM3

13.2.1 PHY: Salon C.

13.2.2 MAC/MU: Salon A.

14 Recess @ 15:18 until PM3 (TGax ad hoc sessions).

14.1 Next TGax full session is on Wednesday AM1.

Monday, January 15th, 2018, 19:30 – 21:30, TGax ad hoc sessions

Room assignments:

- PHY: Salon C
- MAC/MU: Salon A

Tuesday, January 16th, 2018, 10:30 – 12:30, TGax ad hoc sessions

Room assignments:

- PHY: Salon C
- MAC/MU: Salon A

Tuesday, January 16th, 2018, 16:00 – 18:00, TGax ad hoc sessions

Room assignments:

- PHY: Salon C
- MAC/MU: Salon A

Tuesday, January 16th, 2018, 19:30 – 21:30, TGax ad hoc sessions

Room assignments:

- SR: Salon C
- MAC/MU: Salon A

Wednesday, January 17th, 2018, 8:00 – 10:00, TGax full session

1 Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 8:00 AM (local time).

1.1 Introduction of the front table
- 1.1.1 Chair: Osama Aboul-Magd (Huawei Technologies).
- 1.1.2 Vice-chair: Ron Porat (Broadcom Ltd.)
- 1.1.3 Secretary: Yasuhiko Inoue (NTT)

2 Agenda Setting

2.1 Proposed Agenda for this session
- 2.1.1 Call meeting to order
- 2.1.2 Reminder - IEEE-SA IPR policy and Procedure
- 2.1.3 Progress from the ad hoc groups
- 2.1.4 Presentations and Comment Resolution
  - 2.1.4.1 11-18-0026 Matthew Fischer (Broadcom Ltd.)
  - 2.1.4.2 ACK procedure by George Cherian (Qualcomm)
- 2.1.5 Recess

2.2 Chair asked if there is any objection to accept this agenda. → No objection.
- 2.2.1 The agenda was approved.

3 Reminder

3.1 Chair reminded that we are still operating under the IEEE 802 and 802.11 Policies and Procedures.

3.2 Chair also asked the attendees to state name and affiliation when addressing the group for the first time during a meeting slot

3.3 Attendance!

4 Progress from the ad hoc groups

4.1 MAC/MU
- 4.1.1 19 submissions are presented in the 4 sessions and 91 CIDs are accepted.
- 4.1.2 18/204r1 contains the summary.

4.2 SR
- 4.2.1 Agenda 18/217r1.
- 4.2.2 17/1852r6: no idea why this is categorized to SR.
- 4.2.3 18/0026 – alsomt done.

4.3 PHY
- 4.3.1 70% finished. Still have one slot to go.
- 4.3.2 Two of the remaining submissions are deferred until March 2018 meeting.

4.4 Discussion on the additional time slot
- 4.4.1 Chair mentioned it will be good to have two more slots.
- 4.4.2 Some members are not happy with the chair's proposal due to conflict with other sessions.
- 4.4.3 Chair will not request additional time slot.

5 Presentations

5.1 George Cherian (Qualcomm) presented "CIDs from subclause 27.4.4," based on the submission 11-18-0027-01.

- 5.1.1 Summary
  - 5.1.1.1 Resolutions for the following CIDs and changes to the spec text in subclause 27.4 (HE block acknowledgment procedure) are proposed.
    - 5.1.1.1.1 Relevant CIDs: 11092, 11740, 11757, 11758, 11759, 11760, 11761, 11762, 11763, 11810, 12143, 12486, 12487, 12488, 12489, 12490, 12630, 12631, 12826, 12827, 12828, 12829, 12831, 12832, 12887, 12888, 12889, 12891, 12892, 12893, 12894, 12895, 12896, 12897, 12898, 12899, 12900, 12902,

12903, 12904, 12905, 12906, 12907, 12908, 12909, 12910, 12911, 13517, 13518, 13519, 13520 (51 CIDs)

5.1.2 Discussion

5.1.2.1 A member mentioned that there is ambiguous terminology.

5.1.2.2 Another member discussed the spec written in subclause 27.4.4.5 (Responding to an HE TB PPDU with a DL SU PPDU).

5.1.2.3 Some members are not happy with the proposed spec text.

5.1.3 Next step

5.1.3.1 Chair suggested offline discussions.

5.2 Matthew Fischer (Broadcom Ltd.) presented "CR SRG and SRP," based on the submission 11-18-0026-02.

5.2.1 Summary

5.2.1.1

5.2.2 Discussion

5.2.2.1 A member discuused the relation between the SR transmission and the ED level.

5.2.2.2 Another member asked for a clarification for the definition of SR_Delay.

5.2.3 Next step

5.2.3.1 Chair suggested offline discussions on resolutions and proposed texts.

6 AoB

6.1 Time is up.

7 Resess

7.1 TGax is in recess @ 10:00 AM until PM2 today (for ad hoc meeting)

Wednesday, January 17th, 2018, 16:00 – 18:00, TGax ad hoc sessions

Room assignments:

- PHY: Salon C
- MAC/MU: Salon A

Thursday, January 18th, 2018, 10:30 – 15:30, TGax full session

1 Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 10:30 AM (local time).

1.1 Introduction of the front table
- 1.1.1 Chair: Osama Aboul-Magd (Huawei Technologies).
- 1.1.2 Vice-chair: Ron Porat (Broadcom Ltd.)
- 1.1.3 Secretary: Yasuhiko Inoue (NTT)

2 Agenda Setting

2.1 Proposed agenda for Thursday AM2 and PM2
- 2.1.1 Call Meeting to order
- 2.1.2 IEEE-SA IPR policy and Procedure.
- 2.1.3 Ad hoc meeting
- 2.1.4 Telecon Schedule
- 2.1.5 TG Technical Motions
  - 2.1.5.1 11-18/0182 – minor change
  - 2.1.5.2 11-18/0026 – seek consensus – allow more time
- 2.1.6 CR Submissions
  - 2.1.6.1 11-18/0027 – seek consensus
  - 2.1.6.2 11-18/0055 – new
  - 2.1.6.3 11-18/0226 – new
  - 2.1.6.4 Any ready submission
- 2.1.7 Goals for March 2018
- 2.1.8 Adjourn

2.2 Chair asked if there is any objection. → No objection.
- 2.2.1 The agenda for Thursday AM2 and PM2 is accepted.

3 Ad hoc meeting

3.1 **Motion: Authorize TGax to hold an ad-hoc meeting on Feb. 28, Marc 1-2 in the Bay area, for the purpose of working on draft D2.0 comment resolution.**
- 3.1.1 **Moved: Peter Ecclesine , Seconded: Jianhan Liu.**
- 3.1.2 **Discussion: No discussion**
- 3.1.3 **Result: Y/N/A = 42/0/1, motion passes.**

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4 Teleconferences

4.1 Previously approved teleconference: January 25th, 2018, 20:00 – 22:00 (ET)

4.2 New set of teleconferences:
- 4.2.1 February 1, 2018 @ 10:00 – 12:00 ET
- 4.2.2 February 8 and 22, 2018 @ 20:00 – 22:00 ET

4.3 Discussion:
- 4.3.1 No teleconference on February 15th because of Chinese new year.
- 4.3.2 No objection to the above schedule.
- 4.3.3 The new teleconferences will be approved during the closing plenary.

5 TG Motions

5.1 PHY Motions

5.1.1 PHY Motion #204: Move to accept the proposed spec text modification as in 11-18/0028r3.

5.1.1.1 Moved by Xiaogang Chen, Seconded by Bo Sun.
5.1.1.2 Discussion: No discussion.
5.1.1.3 Result: The motion was approved with no objection.

5.2 CR Motions

5.2.1 CR Motion #447 (Editor): Move to approve the resolutions to all the comments on the "Editorials in D2.1" tab of 17/1682r5 except for CID 13650.

5.2.1.1 Moved by Robert Stacy, Seconded by Youhan Kim.
5.2.1.2 Discussion: No discussion.
5.2.1.3 Result: The motion was approved with no objection.

5.2.2 CR Motion #448 (PHY): Move to accept resolutions to CIDs 12774, 12776, 13202, 13237, 13417 in doc 11-17/1826r0.

5.2.2.1 Moved by Lochan Verma, Seconded by Kome Oteri.
5.2.2.2 Discussion: No discussion.
5.2.2.3 Result: The motion was approved with no objection.

5.2.3 CR Motion #449 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0006r4

- **CID 11405, 11406, 11407, 11637, 11638, 12673, 13365, 14071, 14084**

5.2.3.1 Moved by Ross Jian Yu, Seconded by Ron Porat.
5.2.3.2 Discussion: No discussion. Just double checked the revision number of the document.
5.2.3.3 Result: The motion was approved with no objection.

5.2.4 CR Motion #450 (PHY): Move to accept proposed comment resolution to the following CIDs as in 11-18/0023r1

- **CID 12645, 13013, 13623, 13624, 13625, 14044, 14045**

5.2.4.1 Moved by Xiaogang Chen, Seconded by Bo Sun.
5.2.4.2 Discussion: No discussion.
5.2.4.3 Result: The motion was approved with no objection.

5.2.5 CR Motion #451 (PHY): Move to accept the proposed comment resolutions to the following CIDs as in 11-18/0024r1

- **CID 11424, 11567, 12585, 13349, 13350, 13351, 13352, 13353, 13408**

5.2.5.1 Moved by Xiaogang Chen, Seconded by Bo Sun.
5.2.5.2 Discussion: No discussion.

5.2.5.3 Result: The motion was approved with no objection.

5.2.6 **CR Motion #452 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0038r1**
- **CID 12579, 12884, 13016, 13046, 13306, 13307, 13364, 13771, 13366, 13457, 14070**

5.2.6.1 Moved by Lochan Verma, Seconded by Abhishek Patil.
5.2.6.2 Discussion: No discussion.
5.2.6.3 Result: The motion was approved with no objection.

5.2.7 **CR Motion #453 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0046r0**
- **CID 11466, 12680, 13976**

5.2.7.1 Moved by Lochan Verma, Seconded by Abhishek Patil.
5.2.7.2 Discussion: No discussion.
5.2.7.3 Result: The motion was approved with no objection.

5.2.8 **CR Motion #454 (PHY): Move to accept the proposed comment resolution to the following CIDs except those in red as in 11-18/0036r1**
- **CID 11166, 11420, 11421, 11720, 12785, 13068, 13107, 13108, 13110, 13345, 13346, 13347, 13348, 14003, 13567, 13568, 13569, 13570, 13989, 13990, 13991, 13994, 13995, 13997, 13999, 14000, 14003**

5.2.8.1 Moved by Lochan Verma, Seconded by Abhishek Patil.
5.2.8.2 Discussion: No discussion.
5.2.8.3 Result: The motion was approved with no objection.

5.2.9 **CR Motion #455 (PHY): Move to accept the proposed comment resolution to the following CIDs except those in red as in 11-18/0037r1**
- **CID 13622, 13628, 13629, 13837, 13979, 13980, 13981, 13982, 13992, 13993, 14002, 14007, 14009, 14010, 14012, 13565, 13566, 14013**

5.2.9.1 Moved by Lochan Verma, Seconded by Abhishek Patil.
5.2.9.2 Discussion: No discussion.
5.2.9.3 Result: The motion was approved with no objection.

5.2.10 **CR Motion #456 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0079r2**
- **CID 13379, 13413, 13414**

5.2.10.1 Moved by Kome Oteri, Seconded by Al Petrick.
5.2.10.2 Discussion: No discussion.
5.2.10.3 Result: The motion was approved with no objection.

5.2.11 **CR Motion #457 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0080r2**
- **CID 12683, 12684, 12690, 12702, 12746, 12769, 12771, 12772, 13696, 13697**

5.2.11.1 Moved by Kome Oteri, Seconded by Al Petrick.
5.2.11.2 Discussion: No discussion.
5.2.11.3 Result: The motion was approved with no objection.

5.2.12 **CR Motion #458 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0050r1**
- **CID 13464, 11436, 11437, 11438, 14176, 14177, 14178, 11412, 14179, 13470, 11439**

5.2.12.1 Moved by Yujin Noh, Seconded by Bo Sun.
5.2.12.2 Discussion: No discussion.
5.2.12.3 Result: The motion was approved with no objection.

5.2.13 **CR Motion #459 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0025r1**
- **CID 11425, 11426, 11568, 11569, 11570, 11571, 11572, 11573, 11574, 11575, 11576, 11577, 11578, 11579, 11580, 11581, 11582, 11583, 11584, 11585, 11586, 11587, 11588, 11589, 12065, 13354, 13355, 13356, 13357, 13358, 13359, 13360, 13447, 13448, 13449, 13450, 13451.**

5.2.13.1 Moved by Xiaogang Chen, Seconded by Bo Sun.
5.2.13.2 Discussion: No discussion.
5.2.13.3 Result: The motion was approved with no objection.

5.2.14 **CR Motion #460 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0057r0**
- **CID 13430, 13429, 14050, 12686, 13612.**

5.2.14.1 Moved by Youhan Kim, Seconded by Bo Sun.
5.2.14.2 Discussion: No discussion.
5.2.14.3 Result: The motion was approved with no objection.

5.2.15 **CR Motion #461 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0058r1**
- **CID 11220, 11670, 12064, 12651, 12722, 12723, 12728, 13494, 13498, 14085, 14186, 14187, 14188, 14189, 14190, 14191, 14192, 14193, 14194, 11671, 11672.**

5.2.15.1 Moved by Hongyuan Zhang, Seconded by Ron Porat.
5.2.15.2 Discussion: No discussion.
5.2.15.3 Result: The motion was approved with no objection.

5.2.16 **CR Motion #462 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0159r3**
- **CID 11164, 11169, 11170, 11171, 11172, 11176, 11386, 11387, 11388, 11389, 11391, 13406, 14128, 14129.**

5.2.16.1 Moved by Jianhan Liu, Seconded by Bo Sun.
5.2.16.2 Discussion: No discussion.
5.2.16.3 Result: The motion was approved with no objection.

5.2.17 **CR Motion #463 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0051r1**
- **CID 13465, 13466, 14076, 13369, 11409, 14077.**

5.2.17.1 Moved by Yujin Noh, Seconded by Bo Sun.
5.2.17.2 Discussion: No discussion.
5.2.17.3 Result: The motion was approved with no objection.

5.2.18 **CR Motion #464 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0057r1**
- **CID 13427, 13433, 13441, 12878.**

5.2.18.1 Moved by Youhan Kim, Seconded by Bo Sun.
5.2.18.2 Discussion: No discussion.
5.2.18.3 Result: The motion was approved with no objection.

5.2.19 **CR Motion #465 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0109r1**
- **CID 11545, 11546, 11590, 11591, 13453, 11382, 11383, 11384, 11361, 11362, 11592, 11593, 11594, 11595, 11596, 11658.**

5.2.19.1 Moved by Yan Zhang, Seconded by Bo Sun.
5.2.19.2 Discussion: No discussion.
5.2.19.3 Result: The motion was approved with no objection.

5.2.20 **CR Motion #466 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0118r6**
- **CID 11496, 11530, 11636, 11695, 11719, 11864, 12578, 12639, 12640, 12709, 12801, 12802, 13371, 13407, 11531, 11532, 13239, 13305, 13460, 13461, 13462, 13601, 13713, 14080, 13638.**

5.2.20.1 Moved by Ron Porat, Seconded by Bo Sun.
5.2.20.2 Discussion: No discussion.
5.2.20.3 Result: The motion was approved with no objection.

5.2.21 **CR Motion #467 (PHY): Move to accept the proposed comment resolution to the following CIDs as in 11-18/0230r0**
- **CID 11634, 11654, 11655, 14321.**

5.2.21.1 Moved by Ross Jian Yu, Seconded by Bo Sun.
5.2.21.2 Discussion: No discussion.
5.2.21.3 Result: The motion was approved with no objection.

5.2.22 **CR Motion #468: Move to accept resolutions to CIDs 12357, 12358, 12359, 12360, 12361, 11134, 11787, 12434, 13056, 12736, 12782, 12783, 13297, 13043, 13149, 13299, 13298 in doc 11-17/1874r3.**

5.2.22.1 Moved by Po-Kai Huang, Seconded by Kiseon Ryu.
5.2.22.2 Discussion: No discussion.
5.2.22.3 Result: The motion was approved with no objection.

5.2.23 **CR Motion #469: Move to accept resolutions to CIDs; 13873, 11011, 11858, 12734, 12867, 13862, 12379, 12170, 12254, 12889 (10 CIDs) in doc 11-18/0105r3.**

5.2.23.1 Moved by Alfred Asterjadhi, Seconded by Kiseon Ryu.
5.2.23.2 Discussion: No discussion.
5.2.23.3 Result: The motion was approved with no objection.

5.2.24 **CR Motion #470: Move to accept resolutions to CIDs; 11000, 13806, 12392, 11016, 13189, 13190, 13191, 13192, 13193, 11031 in doc 11-17/1857r2.**

5.2.24.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.24.2 Discussion: No discussion.
5.2.24.3 Result: The motion was approved with no objection.

5.2.25 **CR Motion #471: Move to accept resolutions to CIDs 11365, 11986, 11366 in doc 11-17/1850r1.**

5.2.25.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.25.2 Discussion: No discussion.
5.2.25.3 Result: The motion was approved with no objection.

5.2.26 **CR Motion #472: Move to accept resolutions to CIDs 11551, 11707, 13182 in doc 11-18/0066r0.**

5.2.26.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.26.2 Discussion: No discussion.
5.2.26.3 Result: The motion was approved with no objection.

5.2.27 **CR Motion #473: Move to accept resolutions to CIDs 13261, 11753, 13143, 12222, 11339, 11036, 13780, 13794, 12175, 13012 in doc 11-17/1861r1.**

5.2.27.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.27.2 Discussion: No discussion.
5.2.27.3 Result: The motion was approved with no objection.

5.2.28 **CR Motion #474: Move to accept resolution to CIDs 12081, 11769, 11770, 12017, 11239, 11771, 13151, 13831, 14091, 14276, 13062, 11240, 12609, 12018, 13929, 11556, 14114, 12188, 14213, 13152, 11257, 11773, 11811, 13153, 14277, 13154, 13931, 13930, 12541, 11937, 12189, 14115, 14214, 12080, 11741, 12019, 14116, 14117, 14278, 11238, 11736, 11775, 14279, 11774, 12021, 13063, 14281, 11776, 11777, 11772, 14282, 11778, 11939, 13932, 11779, 13064, 13933, 12022, 11938, 14283, 11557, 12247, 11828, 11831, 13855, 11829, 11832, 14284, 11558, 11559, 14118, 11780, 14285, 11942, 11940, 11781, 13934, 14286, 13702, 13935, 14287, 12249, 12540, 13155, 11812, 13156, 12070, 13065, 14216,**

11941, 13420, 11813, 12250, 14288, 12069, 12542, 14280, 11256, 11470, 11548, 11549, 11550, 12232, 12606, 12655, 14226, 14227, 12429, 12716 as in document 1852r8.

5.2.28.1 Moved by Laurent Cariou, Seconded by Kiseon Ryu.
5.2.28.2 Discussion: No discussion.
5.2.28.3 Result: The motion was approved with no objection.

5.2.29 **CR Motion #475: Move to accept resolution to CID 11374 in doc 11-18/0068r0.**

5.2.29.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.29.2 Discussion: No discussion.
5.2.29.3 Result: The motion was approved with no objection.

5.2.30 **CR Motion #476: Move to accept resolutions to CIDs 11378, 11683, 11685, 11686, 11997, 11999, 12028, 12185, 12186, 12220, 12417, 12807, 12808, 12838, 12839, 12840, 12842, 12981, 13038, 13039, 13170, 13757, 13812, 13928, 14135, 14136, 14137 in doc 11-18/0035r5.**

5.2.30.1 Moved by Jarkko Kneckt, Seconded by Kiseon Ryu.
5.2.30.2 Discussion: No discussion.
5.2.30.3 Result: The motion was approved with no objection.

5.2.31 **CR Motion #477: Move to accept resolutions to Move to accept resolutions to CIDs 12757, 11149, and 13675 in doc 11-18/0098r2.**

5.2.31.1 Moved by Ming Gan, Seconded by Kiseon Ryu.
5.2.31.2 Discussion: No discussion.
5.2.31.3 Result: The motion was approved with no objection.

5.2.32 **CR Motion #478: Move to accept resolutions to CIDs 12463 11078 12012 13160 11079 12007 11800 11080 11803 12819 13242 11804 12467 13163 13243 12464 13101 11082 13890 13891 11805 12013 12465 13244 13245 13246 13247 13248 11083 13049 11678 (31 CIDs) in doc 11-18/0099r3.**

5.2.32.1 Moved by Ming Gan, Seconded by Kiseon Ryu.
5.2.32.2 Discussion: No discussion.
5.2.32.3 Result: The motion was approved with no objection.

5.2.33 **CR Motion #479: Move to accept resolution to CIDs; 11076, 11077, 11260, 11949, 12079, 12165, 11916, 13333, 12229, 12284, 12461, 13060, 13061, 13657, 13658, 13720, 13825, 14105, 14106, 14107, 14108, 13076 in doc 11-17/1878r1.**

5.2.33.1 Moved by Po-Kai Huang, Seconded by Kiseon Ryu.
5.2.33.2 Discussion: No discussion.
5.2.33.3 Result: The motion was approved with no objection.

5.2.34 **CR Motion #480: Move to accept resolutions to CIDs; 11457, 11544, 11743, 12436, 12550, 12551, 13172, 13173, 13174, 13175, 13759, 13813, 13860, 14144, 14145, 14146, 14147, 14148, 14149 in doc 11-18/0081r3.**

5.2.34.1 Moved by Jianhan Liu, Seconded by Kiseon Ryu.
5.2.34.2 Discussion: No discussion.
5.2.34.3 Result: The motion was approved with no objection.

5.2.35 **CR Motion #481: Move to accept the resolution to CID 13142 in doc 11-17/1858r0.**

5.2.35.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.35.2 Discussion: No discussion.
5.2.35.3 Result: The motion was approved with no objection.

5.2.36 **CR Motion #482: Move to accept resolutions to CIDs; 11033, 13196, 11992, 14208, 12224, 14210, 13198, 11364, 12178, 11731, 11732, 12179, 11045, 13796, 11379 in doc 11-17/1849r2.**

5.2.36.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.36.2 Discussion: No discussion.
5.2.36.3 Result: The motion was approved with no objection.
5.2.36.4 Note: CID 11001 is not part of this motion

5.2.37 **CR Motion #483: Move to accept resolutions to CIDs 11355, 11028, 11877, 11029, 13140, 11878 in doc 11-17/1847r0.**

5.2.37.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.37.2 Discussion: No discussion.
5.2.37.3 Result: The motion was approved with no objection.

5.2.38 **CR Motion #484: Move to accept resolutions to CIDs; 11049, 11050, 12446, 12447, 13916. in doc 11-18/0074r1.**

5.2.38.1 Moved by Liwen Chu, Seconded by Kiseon Ryu.
5.2.38.2 Discussion: No discussion.
5.2.38.3 Result: The motion was approved with no objection.

5.2.39 **CR Motion #485: Move to accept resolutions to CIDs; 11153, 11798, 12041, 12085, 12089, 12428, 12462, 13037, 13075, 13090, 13887 in doc 11-17/1828r4.**

5.2.39.1 Moved by Laurent Cariou, Seconded by Kiseon Ryu.
5.2.39.2 Discussion: A member mentioned that Instruction to the editor should be updated.
5.2.39.3 Result: The motion was approved with no objection.

5.2.40 **CR Motion #486: Move to accept resolutions to CIDs 11154, 12445 in doc 11-18/0009r0.**

5.2.40.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.40.2 Discussion: No discussion.

5.2.40.3 Result: The motion was approved with no objection.

5.2.41 **CR Motion #487: Move to accept the resolution of CID 12046 in doc 11-18/0010r0.**

5.2.41.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.41.2 Discussion: No discussion.
5.2.41.3 Result: The motion was approved with no objection.

5.2.42 **CR Motion #488: Move to accept resolutions to CIDs; 11159, 11160, 11321, 11322, 12144, 13283, 13744, 13918, 13919 (9 CIDs) in doc 11-18/0011r2.**

5.2.42.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.42.2 Discussion: No discussion.
5.2.42.3 Result: The motion was approved with no objection.

5.2.43 **CR Motion #489: Move to accept resolutions to CIDs; 11046, 11047, 12034, 13513, 13724, 13186, 13187 in doc 11-18/0090r0.**

5.2.43.1 Moved by Laurent Cariou, Seconded by Kiseon Ryu.
5.2.43.2 Discussion: No discussion.
5.2.43.3 Result: The motion was approved with no objection.

5.2.44 **CR Motion #490: Move to accept resolutions to CIDs; 12000, 12050, 12176, 13071, 13524, 13852 in doc 11-18/0063r1.**

5.2.44.1 Moved by Kiseon Ryu, Seconded by Suhwook Kim.
5.2.44.2 Discussion: No discussion.
5.2.44.3 Result: The motion was approved with no objection.

5.2.45 **CR Motion #491: Move to accept resolutions to CIDs 11118, 14206, 11003, 11371, 13694, 13861, 12374, 12719, 11004, 13330, 13695, 11978, 12375, 13331, 12164, 12227, 13862 in doc 11-18/0065r2.**

5.2.45.1 Moved by Abhishek Patil, Seconded by Kiseon Ryu.
5.2.45.2 Discussion: No discussion.
5.2.45.3 Result: The motion was approved with no objection.

5.2.46 **CR Motion #492: Move to accept resolutions to CIDs 12534, 12535, 12536, 12537, 12653, 12657, 13949 (7 CIDs) in doc 11-18/0013r0.**

5.2.46.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.46.2 Discussion: No discussion.
5.2.46.3 Result: The motion was approved with no objection.

5.2.47 **CR Motion #493: Move to accept resolutions to CIDs 11262 and 11693 in doc 11-18/0014r0.**

5.2.47.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.47.2 Discussion: No discussion.
5.2.47.3 Result: The motion was approved with no objection.

5.2.48 **CR Motion #494: Move to accept resolutions to following CIDs in doc 11-18/0008r2 (11 CIDs).**
- **11117, 11509, 11914, 12373, 13235, 13409, 13535, 13536, 13537, 13538, 14338**

5.2.48.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.48.2 Discussion: No discussion.
5.2.48.3 Result: The motion was approved with no objection.

5.2.49 **CR Motion #495: Move to accept resolutions to following CIDs in doc 11-18/0043r0 (8 CIDs).**
- **11508, 11764, 11765, 12758, 12773, 13286, 13775, 14337**

5.2.49.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.49.2 Discussion: No discussion.
5.2.49.3 Result: The motion was approved with no objection.

5.2.50 **CR Motion #496: Move to accept resolutions to following CIDs in doc 11-18/0042r1.**
- **12512, 12668, 12941, 13204, 13205, 13206, 13207, 13208, 13209, 13210, 13211, 13212, 13213, 13214, 13215, 13216, 13217**

5.2.50.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.50.2 Discussion: No discussion.
5.2.50.3 Result: The motion was approved with no objection.

5.2.51 **CR Motion #497: Move to accept resolutions to following CIDs in doc 11-17/1837r3.**
- **13725, 14261, 14263, 14264, 12294**

5.2.51.1 Moved by Liwen Chu, Seconded by Kiseon Ryu.
5.2.51.2 Discussion: No discussion.
5.2.51.3 Result: The motion was approved with no objection.

5.2.52 **CR Motion #498: Move to accept resolutions to following CIDs in doc 11-18/0053r2.**
- **11508, 13910, 12492, 11303, 11304, 13911, 12493, 11305, 11306, 11307, 11308, 13827, 12494, 12495, 11326**

5.2.52.1 Moved by Zhou Lan, Seconded by Kiseon Ryu.
5.2.52.2 Discussion: A member asked for update of instruction to the editor.
5.2.52.3 Result: The motion was approved with no objection.

5.2.53 **CR Motion #499: Move to accept resolutions to following CIDs in doc 11-18/0054r0 (6 CIDs).**
- **12286, 13091, 13707, 11301, 11302, 13092.**

5.2.53.1 Moved by Zhou Lan, Seconded by Kiseon Ryu.

5.2.53.2 Discussion: No discussion.
5.2.53.3 Result: The motion was approved with no objection.

5.2.54 **CR Motion #500: Move to accept resolutions to following CIDs in doc 11-18/0065r3 (1 CID).**
- **11917.**

5.2.54.1 Moved by Abhishek Patil, Seconded by Lochan Verma.
5.2.54.2 Discussion: No discussion.
5.2.54.3 Result: The motion was approved with no objection.

5.2.55 **CR Motion #501: Move to accept resolutions to following CIDs in doc 11-18/0015r0 (2 CIDs).**
- **12846, 13301.**

5.2.55.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.55.2 Discussion: No discussion.
5.2.55.3 Result: The motion was approved with no objection.

5.2.56 **CR Motion #502: Move to accept resolutions to following CIDs in doc 11-18/0039r1.**
- **11156, 11048, 12128, 12129, 12173, 12174, 12245, 12248, 12252, 12255.**

5.2.56.1 Moved by Alfred Asterjadhi, Seconded by Kiseon Ryu.
5.2.56.2 Discussion: No discussion.
5.2.56.3 Result: The motion was approved with no objection.

5.2.57 **CR Motion #503: Move to accept resolutions to following CIDs in doc 11-18/0108r2.**
- **11323, 11324, 11325, 12145, 12314, 13920, 13921, 14265.**

5.2.57.1 Moved by Kiseon Ryu, Seconded by Abhishek Patil.
5.2.57.2 Discussion: No discussion.
5.2.57.3 Result: The motion was approved with no objection.

5.2.58 **CR Motion #504: Move to accept resolutions to following CIDs in doc 11-18/0040r2 (10 CIDs).**
- **11051, 11052, 12086, 12446, 12448, 12449, 12450, 12788, 12789, 13733.**

5.2.58.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.58.2 Discussion: No discussion.
5.2.58.3 Result: The motion was approved with no objection.

5.2.59 **CR Motion #505: Move to accept resolutions to following CIDs in doc 11-18/0041r1 (2 CIDs).**
- **11067, 12455.**

5.2.59.1 Moved by Alfred Asterjadhi, Seconded by Abhishek Patil.
5.2.59.2 Discussion: No discussion.
5.2.59.3 Result: The motion was approved with no objection.

5.2.60 **CR Motion #506: Move to accept resolutions to following CIDs in doc 11-18/0182r5 (1 CID).**
- **CID 18555.**

5.2.60.1 Moved by Guoqing Li, Seconded by Kiseon Ryu.
5.2.60.2 Discussion: No discussion.
5.2.60.3 Result: The motion was approved with no objection.

5.2.61 **CR Motion #507: Move to accept resolutions to following CIDs in doc 11-18/76r3 (5 CIDs).**
- **12226, 13709, 13716, 14257.**
- **Note resolution to CID 14318 is not part of this motion**

5.2.61.1 Moved by Liwen Chu, Seconded by Kiseon Ryu.
5.2.61.2 Discussion: No discussion.
5.2.61.3 Result: The motion was approved with no objection.

6 Presentations

6.1 **Matthew Fischer (Broadcom Ltd.) presented "CR SRG and SRP," based on the submission 11-18-0026.**

6.1.1 Summary

6.1.1.1 Document 11-18-0026 (CR SRG and SRP) was revisited.

6.1.1.2

6.1.2 Discussion

6.1.2.1 Some members requested more time for offline discussions.

6.2 **George Cherian (Qualcomm) presented "CRs from subclause 27.4.4," based on the submission 11-18-0027.**

6.2.1 Summary

6.2.1.1 Document 11-18-0027 (CR from subclause 27.4.4 (Responding to an HE MU PPDU or HE SU PPDU with an HE TB PPDU)) was revisited.

6.2.2 Discussion

6.2.2.1 New comments are received for this document and it is good to revisit later.

6.2.2.2 A member mentioned that doc 18/0027 needs further discussions since it contains lots of changes. Next ad hoc meeting will be a good place to do that.

6.2.2.3 The author of this document prefers to start discussion this afternoon.

7 AoB – none.

8 Recess @ 12:25 until PM2 today.

Thursday, January 18th, 2018, 16:00 – 18:00, TGax full session

9 Meeting called to order by Osama Aboul-Magd (Huawei Technologies), the chairperson of TGax @ 16:00 (local time).

9.1 **Introduction of the front table**

9.1.1 Chair: Osama Aboul-Magd (Huawei Technologies).

9.1.2 Vice-chair: Ron Porat (Broadcom Ltd.)
9.1.3 Secretary: Yasuhiko Inoue (NTT)

10 Agenda Setting - as approved AM2 today.

10.1 Proposed agenda for Thursday AM2 and PM2 – already approved during the AM2 session
- 10.1.1 Call Meeting to order
- 10.1.2 IEEE-SA IPR policy and Procedure.
- 10.1.3 Ad hoc meeting
- 10.1.4 Telecon Schedule
- 10.1.5 TG Technical Motions
  - 10.1.5.1 11-18/0182 – minor change
  - 10.1.5.2 11-18/0026 – seek consensus – allow more time
- 10.1.6 CR Submissions
  - 10.1.6.1 11-18/0027 – seek consensus
  - 10.1.6.2 11-18/0055 – new
  - 10.1.6.3 11-18/0226 – new
  - 10.1.6.4 Any ready submission
- 10.1.7 Goals for March 2018
- 10.1.8 Adjourn

11 Reminder

11.1 IEEE-SA and IEEE 802 Policies and Procedures.
11.2 Attendance.
11.3 Chair asked people to state name and affiliation when speaking for the first time in the session.

12 Presentations

12.1 **Doc. 11-18-0027-02, "CRs from subclause 27.4.4," by George Cherian (Qualcomm).**
- 12.1.1 Summary
  - 12.1.1.1 Doc.11-18-0027 was revisited after offline discussion and some update.
  - 12.1.1.2 George explained the updates in rev. 2.
- 12.1.2 Discussion
  - 12.1.2.1 No discussion for now.
  - 12.1.2.2 People need more time for review.
- 12.1.3 Next Step
  - 12.1.3.1 Chair recommended people to look the document and provide feedback.

12.2 **Doc. 11-18-0055-01, "CR for CID 14324," by Zhou Lan (Broadcom Ltd.).**
- 12.2.1 Summary
  - 12.2.1.1 The 11-18-0055 was not presented since it needs more time for offline discussions.

12.3 **Doc. 11-18-0226, Kaiying Lv (ZTE) presented "Proposed resolution to CID 12194."**
- 12.3.1 Summary
  - 12.3.1.1 A resolution for CID 12194 from Kaiying saying "Multiple SR PPDUs from different STAs may interfere the reception of SRP PPDU. Mechanism to reduce the interference needs to be considered."
  - 12.3.1.2 Kaiying proposes a randomization procedure in transmitting an SR PPDU.
- 12.3.2 Discussion
  - 12.3.2.1 A member asked if this is to mitigate the effect of hidden nodes. → The intension is to reduce the number of SR PPDUs transmitted by different STAs.
  - 12.3.2.2 Another member mentioned that only the APs should do this. → Kaiying disagrees.
  - 12.3.2.3 Another member is concerned by the additional complexity.
  - 12.3.2.4 There was a comment that HE-SIG-A cannot accommodate related information for this procedure.

12.3.3 Next Step
12.3.3.1

12.4 **Doc. 11-17-1893, "CR TWT IE" by Matthew Fischer (Broadcom Ltd.).**
12.4.1 Summary
12.4.1.1 Resolutions with proposed changes to TGax D2.0 for CIDs from LB230 related to the TWT Information Element are proposed.
12.4.1.1.1 Relevant CIDs: 11005, 11006, 11007, 11008, 11123, 11367, 11368, 11369, 11700, 11863, 11987, 12033, 12035, 12036, 12037, 12038, 12039, 12040, 12084, 12230, 12313, 12387, 12394, 12395, 12396, 12397, 12398, 12399, 12400, 12401, 12402, 12403, 12404, 12405, 12406, 12407, 12408, 12409, 12410, 12411, 12412, 12413, 13000.
12.4.2 Discussion
12.4.2.1 People discussed about the contents of Table 9-262k.
12.4.2.2 Re: CID #12313: A member suggested modification of the Broadcast TWT Recommendation field value.

12.4.3 **CR Motion #508: Move to accept resolutions to CIDs 11005, 11006, 11007, 11008, 11123, 11367, 11368, 11369, 11700, 11863, 11987, 12033, 12035, 12036, 12037, 12038, 12039, 12040, 12084, 12230, 12313, 12387, 12394, 12395, 12396, 12397, 12398, 12399, 12400, 12401, 12402, 12403, 12404, 12405, 12406, 12407, 12408, 12409, 12410, 12411, 12412, 12413, 13000 in doc 11-18/1893r6.**

12.4.3.1 Moved by Matthew Fischer, Seconded by Abhishek Patil.
12.4.3.2 Discussion: No discussion.
12.4.3.3 Result: The motion was approved with no objection.

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13 Goals for March 2018
13.1 Continue with resolution of comments received on draft D2.0.

14 AoB
14.1 We still have 12 minutes.

15 Adjournment
15.1 TGax adjourned @ 17:47.