IEEE P802.11
Wireless LANs

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| IEEE 802.11 TGax, MAC Ad hocJan 2018 TGax MAC/MU Ad hoc Meeting Minutes |
| Date: 2018-01-15 |
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Abstract

TGax, MAC/MU Ad Hoc meeting minutes from the IEEE 802.11, Jan 15th – 18th, 2018.

**IEEE 802.11 Task Group ax, MAC/MU Ad hoc**

**Jan 2018 Meeting, Irvine, CA**

**Jan 15th – 18th, 2018**

**Monday, Jul 15th, 2018, PM3 TGax Session (7:30-9:30PM)**

1. **The meeting called to order at 19:31pm by Kiseon Ryu (LGE), the co-chair of the TGax MU Ad hoc**
	1. 49 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-18/0204 on the server. Rev. 0 is the working document.
	2. Meeting Protocol: The Chair asked for 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 5 slides of P&P.**
	1. Instructions from the WG Chair. [reviewed~~, did not review~~]
	2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
	3. Patent Related Links. [reviewed~~, did not review~~]
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents

 [Asked. ~~Did not ask~~]

* + 1. Potentially essential patents

 [None reported~~. Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.
1. **The Chair called for presentations**
	1. No further request received
2. **The Chair asked for approval of the agenda**
	1. No objection raised
3. **Presentation of contributions**
	1. **11-18/0008r0, “11-18-0008-00-00ax-lb230-mac-cr-9-3-1-20”**

CID 11117, 11509, 11914, 12373, 13235, 13409, 13535, 13536, 13537, 13538, 14338

* + 1. Presented by Aflred Asterjadhi (Qualcomm)

Strawpoll#1: Do you agree to accept resolutions in doc 11-18/0008r1 to following CIDs?

* CID 11117, 11509, 11914, 12373, 13235, 13409, 13535, 13536, 13537, 13538, 14338 (11 CIDs)

Results: passed unanimously.

* 1. **11-18/0043r0, “11-18-0043-00-00ax-lb230-mac-cr-27-6”**

CID 11508, 11764, 11765, 12758, 12773, 13286, 13775, 14337 (8 CIDs)

* + 1. Presented by Aflred Asterjadhi (Qualcomm)

Strawpoll#2: Do you agree to accept resolutions to following CIDs in doc 11-18/0043r0?

* 11508, 11764, 11765, 12758, 12773, 13286, 13775, 14337 (8 CIDs)

Results: passed unanimously.

* 1. **11-18/0042r0, “11-18-0042-00-00ax-lb230-mac-cr-27-6-2”**

CID 12511, 12512, 12668, 12941, 13203, 13204, 13205, 13206, 13207, 13208, 13209, 13210, 13211, 13212, 13213, 13214, 13215, 13216, 13217 (19 CIDs)

* + 1. Presented by Aflred Asterjadhi (Qualcomm)

C: Suggest adding 80+80 mode explicitly

A: Need to check it and defer the resolutions to CIDs 12511 and 13203

Strawpoll#3: Do you agree to accept resolutions to following CIDs in doc 11-18/0042r1?

* CID ~~12511,~~ 12512, 12668, 12941, ~~13203,~~ 13204, 13205, 13206, 13207, 13208, 13209, 13210, 13211, 13212, 13213, 13214, 13215, 13216, 13217 (17 CIDs)

Results: passed unanimously.

* 1. **11-17/1837r2, “11-17-1837-02-00ax-comment-resolution-27-5-3-5”**

CID 11327, 13725, 14261, 14263, 14264, 12294 (6 CIDs)

* + 1. Presented by Liwen Chu (Marvell)

C: Suggest adding an exception instead of a particular number

A: The number of 68us is not for NDP feedback. It is for other trigger frame. You don’t want to transmit for a long time.

C: It was “should” in the last paragraph, why it is changed to “shall”

A: Because of cascading.

C: Preventing ACK is redundant. Suggest taking if offline or switch back to “should”.

C: The number 72us makes the limit too strong, as may only allow few short frames to be sent without CS set to zero.

A: It depends on MCS. Besides, we all agreed that all the data frames shall set CS to 1 in Draft 2.0.

C: We do not need to have a detailed number there.

Strawpoll#4: Do you agree to accept resolutions to following CIDs in doc 11-17/1837r3?

* CID ~~11327,~~ 13725, 14261, 14263, 14264, 12294 (5 CIDs)

Results: passed unanimously.

The meeting recesses at 21:20pm.

**Tuesday, Jul 16th, 2018, AM2 TGax Session (10:30-12:30AM)**

1. **The meeting called to order at 10:30am by Chao-chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. 45 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-18/0204 on the server. Rev. 0 is the working document.
	2. Meeting Protocol: The Chair asked for 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 5 slides of P&P.**
	1. Instructions from the WG Chair. [reviewed~~, did not review~~]
	2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
	3. Patent Related Links. [reviewed~~, did not review~~]
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents

 [Asked. ~~Did not ask~~]

* + 1. Potentially essential patents

 [None reported~~. Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.
1. **The Chair called for presentations**
	1. No further request received
2. **The Chair asked for approval of the agenda**
	1. No objection raised
3. **Presentation of contributions**
	1. **11-18/0053r0, “CR on BQR”**

CID 11508, 13910, 12492, 11303, 11304, 13911, 12493, 11305, 11306, 11307, 11308, 13827, 12494, 12495, 12496, 13093, 11326

* + 1. Presented by Zhou Lan (Broadcom Ltd.)

CID13093 and CID12496 are deferred for further discussion.

Strawpoll#5: Do you agree to accept resolutions in doc 11-18/0053r1 to following CIDs?

* CID 11508, 13910, 12492, 11303, 11304, 13911, 12493, 11305, 11306, 11307, 11308, 13827, 12494, 12495, ~~12496~~, ~~13093~~, 11326 (17 CIDs)

Results: passed unanimously.

* 1. **11-18/0054r0, “CR on DL MU procedure”**

CID 12286, 13091, 13707, 11301, 11302, 13092

* + 1. Presented by Zhou Lan (Broadcom Ltd.)

Strawpoll#6: Do you agree to accept resolutions in doc 11-18/0054r0 to following CIDs?

* CID 12286, 13091, 13707, 11301, 11302, 13092 (6 CIDs)

Results: passed unanimously.

* 1. **11-18/0065r3, “Resolutions to CIDs in 9.2.1.23 (part 1)”**

CID 11917

* + 1. Presented by Abhishek Patil (Qualcomm)

Strawpoll#7: Do you agree to accept resolutions in doc 11-18/0065r3 to following CID?

* CID 11917 (1 CID)

Results: passed unanimously.

* 1. **11-18/0015r0, “LB230-MAC-CR-27.17”**

CID 12846, 13301

* + 1. Presented by Alfred Asterjadhi (Qualcomm Inc.)

C: If an HE STA associates to a VHT AP, it becomes a VHT STA. No further clarification needed in the ax spec.

Strawpoll#8: Do you agree to accept resolutions in doc 11-18/0015r0 to following CIDs?

* CID 12846, 13301 (2 CIDs)

Results: passed unanimously.

* 1. **11-18/0039r0, “LB230-MAC-CR-10.22.2.5”**

CID 11156, 11048, ~~11506, 12128, 12129, 12173, 12174, 12245, 12248, 12252, 12255, 13879, 14334~~

* + 1. Presented by Alfred Asterjadhi (Qualcomm Inc.)

All the CIDs except CID 11156 and 11048 are deferred for further discussion.

Strawpoll#9: Do you agree to accept resolutions in doc 11-18/0039r1 to following CIDs?

* CID 11156, 11048, ~~11506, 12128, 12129, 12173, 12174, 12245, 12248, 12252, - 12255, 13879, 14334~~ (2 CIDs)

Results: passed unanimously.

* 1. **11-17/1837r3, “comment resolution 27.5.3.5”**

CID 11327

* + 1. Presented by Liwen Chu (Marvell)

C: Too restrictive to define “AP shall set the CS Required bit to 1…”

Resolution deferred

The meeting recesses at 12:26pm.

**Tuesday, Jul 16th, 2018, PM2 TGax Session (4:00-6:00PM)**

1. **The meeting called to order at 4:01pm by David Xun Yang (Huawei), the co-chair of the TGax MU Ad hoc**
	1. 36 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-18/0204 on the server. Rev. 0 is the working document.
	2. Meeting Protocol: The Chair asked for 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 5 slides of P&P.**
	1. Instructions from the WG Chair. [reviewed~~, did not review~~]
	2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
	3. Patent Related Links. [reviewed~~, did not review~~]
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents

 [Asked. ~~Did not ask~~]

* + 1. Potentially essential patents

 [None reported~~. Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.
1. **The Chair called for presentations**
	1. No further request received
2. **The Chair asked for approval of the agenda**
	1. No objection raised
3. **Presentation of contributions**
	1. **11-18/0182r0, “CID related to the use of TSPEC for HE STAs”**

CID 18555

* + 1. Presented by Guoqing Li (Apple)

C: What is the Control ID mentioned in the document?

A: It is a new Control ID in HE Control.

C: Why are you defining a HE Control rather than a management frame for persistent scheduling request. Management frame is enough.

A: It’s quicker and more flexible.

C: Proposed scheme requires high complexity.

C: TSPEC modification for 11ax is fine, but extra improvement with defining a new HE Control needs further discussion.

SP deferred for further discussion.

* 1. **11-18/0108r1, “CR for 27.5.3.6”**

CID 12286, 13091, 13707, 11301, 11302, 13092

* + 1. Presented by Kiseon Ryu (LG Electronics)

CID 11323, 11324, 11325, 12145, 12314, 13920, 13921, 14265

Strawpoll#10: Do you agree to accept resolutions in doc 11-18/0108r2 to following CIDs?

* CID 11323, 11324, 11325, 12145, 12314, 13920, 13921, 14265 (8 CIDs)

Results: passed unanimously.

* 1. **11-18/0078r1, “D2.0 comment resolution 27.6.4”**

CID 12508, 13292

* + 1. Presented by Liwen Chu (Marvell)

SP deferred for further discussion

* 1. **11-18/0011r2, “LB230-MAC-CR-27.5.3.4”**

CID 13918

* + 1. Presented by Alfred Asterjadhi (Qualcomm Inc.)

Strawpoll#11: Do you agree to accept resolutions in doc 11-18/0011r2 to following CIDs?

* CID 13918 (1 CID)

Results: passed unanimously.

The meeting recesses at 5:54pm.

**Tuesday, Jul 16th, 2018, EVE TGax Session (7:30-9:30 PM)**

1. **The meeting called to order at 7:30 pm by Chao-Chung Wang the co-chair of the TGax MAC Ad hoc**
	1. 29 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-18/0204 on the server. Rev. 0 is the working document.
	2. Meeting Protocol: The Chair asked for 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 5 slides of P&P.**
	1. Instructions from the WG Chair. [reviewed~~, did not review~~]
	2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
	3. Patent Related Links. [reviewed~~, did not review~~]
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents

 [Asked. ~~Did not ask~~]

* + 1. Potentially essential patents

 [None reported~~. Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.
1. **The Chair called for presentations**
	1. No further request received
2. **The Chair asked for approval of the agenda**
	1. No objection raised
3. **Presentation of contributions**
	1. **802.11/2018-079: D2.0 comment resolution 27.5.3.2.3 (Liwen Chu)**This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11314, 12226, 12883, 13709, 13716, 14257, 14318.

	SP deferred
	2. **802.11-18/040r1: LB230-MAC-CR-10.22.2.6-9 (Alfred Asterjadhi)**This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11051, 11052, 12086, 12446, 12448, 12449, 12450, 12788, 12789, 13733.

	SP#12 for 11051, 11052, 12446, 12448, 12449, 12788, 12789, 13733
	Approved by unanimous consent
	3. **802.11-18/041r1: LB230-MAC-CR-11.24 (Alfred Asterjadhi)**This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11067, 12455 (2 CIDs)

	SP#13 for 11067, 12455
	Approved by unanimous consent
	4. **802.11-18/161: CR of CID 13754 (Zhou Lan)**Proposed resolution for CID 13754

	SP deferred
	5. **802.11-18/185 CR CID 11001 (Zhou Lan)**Proposed resolution for CID 11001

	SP deferred

**Tuesday, Jul 17th, 2018, EVE TGax Session (4:00-6:00 PM)**

1. **The meeting called to order at 4:00 pm by Chao-Chung Wang the co-chair of the TGax MAC Ad hoc**
	1. 52 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-18/0204 on the server. Rev. 1 is the working document.
	2. Meeting Protocol: The Chair asked for 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 5 slides of P&P.**
	1. Instructions from the WG Chair. [reviewed~~, did not review~~]
	2. Participants, Patents, and Duty to Inform. [reviewed~~, did not review~~]
	3. Patent Related Links. [reviewed~~, did not review~~]
	4. Call for potentially essential patents.
		1. Chair asked if anyone is aware of potentially essential patents

 [Asked. ~~Did not ask~~]

* + 1. Potentially essential patents

 [None reported~~. Reported as follows~~]

* 1. Other Guidelines for IEEE WG Meetings.
1. **The Chair called for presentations**
	1. Several further requests received
2. **The Chair asked for approval of the agenda**
	1. No objection raised
3. **Presentation of contributions**
	1. **11-18-0182-04-00ax-cid-related-to-the-use-of-tspec-for-he-stas (Guoqing Li)**

This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11855.

Strawpoll#14: Do you agree to accept resolutions in doc 11-18/0182r4 to following CIDs?

* CID 11855 (1 CID)

Results: passed unanimously.

* 1. **Comment resolutions for 9.3.1.20 (Yongho Seok)**

This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11117, 11509, 11914, 12373, 13235, 13409, 13535, 13536, 13537, 13538, 14338 (11 CIDs).

Strawpoll#1: Do you agree to accept resolutions in doc 11-18/0008r2 to following CIDs?

* CID 11117, 11509, 11914, 12373, 13235, 13409, 13535, 13536, 13537, 13538, 14338 (11 CIDs)

Results: passed unanimously.

* 1. **11-18-0241-00-00ax-mac-cr-misc-cids (Alfred Asterjadhi)**

This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 14331, 14332, 14347 (3 CIDs).

Strawpoll#15: Do you agree to accept resolutions in doc 11-18/0241r0 to following CIDs?

* CID 14331, 14332, 14347 (3 CIDs)

Results: Y/N/A: 12/6/8, SP fails

* 1. **11-18-0039-01-00ax-lb230-mac-cr-10-22-2-5 (Alfred Asterjadhi)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: ~~11156~~, 11048, 11506, 12128, 12129, 12173, 12174, 12245, 12248, 12252,

12255, 13879, 14334 (12 CIDs).

Strawpoll#9: Do you agree to accept resolutions in doc 11-18/0039r1 to following CIDs?

* CID ~~11156,~~ 11048, 11506, 12128, 12129, 12173, 12174, 12245, 12248, 12252, 12255, 13879, 14334 (12 CIDs)

Results: passed unanimously

* 1. **11-18-0040-01-00ax-lb230-MAC-CR-10.22.2.6-9 (Alfred Asterjadhi)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 12086, 12450

Strawpoll#12: Do you agree to accept resolutions in doc 11-18/0040r2 to following CIDs?

* 11051, 11052, 12086, 12446, 12448, 12449, 12450, 12788, 12789, 13733 (10 CIDs)

Results: passed unanimously

* 1. **11-17-1849-03-00ax-cids-related-to-random-acccess (Abhishek Patil)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11001

C: There is a counter proposal yesterday. And your resolution add a new rule.

A: You were happy with this resolution.

C: Suggest to defer the resolution.

C: Agree with Zhou and have similar concern.

SP deferred

* 1. **11-17-1860-05-00ax-resolution-for-cid-11002 (Abhishek Patil)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 11002

C: I am not convinced about the fairness problem. It depends on how to define the fairness

C: Do not know how much the benefits this resolution have and what the possible issues are

C: Request to defer for more offline discussions

SP deferred

* 1. **11-17-1828-03-00ax-cr-mu-edca-parameters (Laurent Carious)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 12041

Strawpoll#16: Do you agree to accept resolutions in doc 11-17/1828r3 to following CIDs?

* CID 11153, 11798, 12041, 12085, 12089, 12428, 12462, 13037, 13075, 13090, 13887 (11 CIDs)

Results: passed unanimously

* 1. **11-18-0076-02-00ax-d2-0-comment-resolution-27-5-3-2-3 (Liwen Chu)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: ~~11314~~, 12226, ~~12883~~, 13709, 13716, 14257, 14318

Strawpoll#17: Do you agree to accept resolutions in doc 11-18/0076r3 to following CIDs?

* CID ~~11314~~, 12226, ~~12883~~, 13709, 13716, 14257, 14318 (5 CIDs)

Results: passed unanimously

* 1. **11-18-0078-02-00ax-d2-0-comment-resolution-27-6-4 (Liwen Chu)**
* This submission proposes resolutions for multiple comments related to TGax D2.0 with the following CIDs: 12508, 13292

Strawpoll#18: Do you agree to accept resolutions in doc 11-18/0078r2 to following CIDs?

* CID 12508, 13292 (2 CIDs)

Results: Y/N/Abs: 10/12/5

The meeting adjourned at 6:00pm.