IEEE P802.11
Wireless LANs

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| IEEE 802.11 TGax, MAC Ad hocMay 2017 TGax MAC Ad hoc Meeting Minutes |
| Date: 2017-05-08 |
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Abstract

TGax, MAC Ad Hoc meeting minutes from the IEEE 802.11, May 8h – 12th, 2017.

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

**May 2017 Meeting, Daejeon, South Korea**

**May 8th – 12th, 2017**

**Monday, May 8th, 2017, PM2 TGax Session (16:00-18:00PM)**

1. **The meeting called to order at 16:00pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. 47 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-17/0786 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. **11-17/0073r3, “CR for 27.5.2.7 NDP feedback report”**

CID 7387, 6144, 7386, 8304, 9101, 9573

* + 1. Presented by Laurent Cariou (Intel)

C: Scheduling type subfield is not necessary because the Group ID was removed from the document at the previous strawpoll.

A: It’s for future proposal.

C: Buffer threshold needs to be negotiated in the capability element.

A: Will be added in the later revision.

C: CS Required bit may be set to 0 for NDP feedback poll Trigger frame.

A: Will be modified in the later revision.

R4 will come back later.

* 1. **11-17/0340r2 “CR for 11-1-3-10”**

CID 3055, 5165, 5797, 5905, 6554, 6556, 6560, 7961, 7977, 7978, 7979, 9334, 9561, 9696, 9868, 6228, 6223, 4708, 6917, 6918, 7997, 9562, 9563 (23 CIDs)

* + 1. Presented by Yonggang Fang (ZTE)

C: In the document, HE Beacon is proposed to be represented for Beacon sent in HE ER SU PPDU, which is ambiguous. HE Beacon should be changed to ER Beacon.

C: Rate selection for ER Beacon should be specified in 10.7.5.1.

The presentation has not been finished. It will come back later.

**Monday, May 8th, 2017, PM3 TGax Session (19:30-21:30PM)**

1. **The meeting called to order at 19:30pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. 28 people are in the room.
2. **The chair asked presenters to present following the agenda.**
3. **Presentation of contributions**
	1. **11-17/0603r0, “Comment resolutions for remaining CIDs in 27.15”**

CIDs 5111, 5512, 5513, 5514, 5515, 5516, 5517, 7153, 8327, 9317, 7583

* + 1. Presented by Alfred Asterjadhi (Qualcomm)

C: (About the paragraph related to CID 5515 and 5516) if the AP send trigger frame in HE ER PPDU, can the STAs send back HE TB PPDU?

A: It is not related to the comments. You can submit a comment. We can check it.

Strawpoll #1: Move to accept resolutions to following CIDs in doc 11-17/0603r0

- 5111, 5512, 5513, 5514, 5515, 5516, 5517, 7153, 8327, 9317, 7583

Results: passed unanimously.

* 1. **11-17/0604r0, “Comment resolutions for remaining CIDs in RDP Control”**

CIDs 3156, 3160, 9812, 8246

* + 1. Presented by Alfred Asterjadhi (Qualcomm)

Strawpoll #2: Move to accept resolutions to following CIDs in doc 11-17/0604r1

- 3156, 3160, 9812, 8246

Results: passed unanimously.

* 1. **11-17/0621r1, “CIDs: Section 27.4 (part 2)”**

CIDs 6098, 6648, 6645, 6644, 5807, 7078, 7087, 3070, 3069, 3214, 5037, 9525, 9394, 9395, 9443, 9447, 9446, 9445, 9567, 9288, 9330, 9876, 9887, 9886, 9885, 9884, 9883, 9881, 9880, 9879, 9878, 9877, 8150, 9719, 8551, 8550, 8215, 7657, 7939, 7938, 8050, 7804, 7799, 7800, 7801, 7803, 7805, 8695, 8471, 8466, 8465, 8462, 8461, 8549, 10328, 10331

* + 1. Presented by George Cherian (Qualcomm)

C: CID 9567 already has a resolution.

C: There is very little instructions to the editor.

Strawpoll #3: Move to accept resolutions to following CIDs in doc 11-17/0621r2

- 6098, 6648, 6645, 6644, 5807, 7078, 7087, 3070, 3069, 3214, 5037, 9525, 9443, 9447, 9446, 9445, 9567, 9288, 9330, 9876, 9887, 9886, 9885, 9884, 9883, 9881, 9880, 9879, 9878, 9877, 8150, 9719, 8551, 8550, 8215, 7657, 7939, 7938, 8050, 7804, 7799, 7800, 7801, 7803, 7805, 8695, 8471, 8466, 8465, 8462, 8461, 8549, 10328, 10331

Results: passed unanimously.

* 1. **11-17/0729r0, “CR for CID7250, 7251 and 7252”**

CIDs 7250, 7251, 7252

* + 1. Presented by Kiseon Ryu (LG)

C: It is not only basic trigger variant trigger frame, but also include BSRP.

A: TID Aggregation limit subfield and the preferred AC subfield are only in basic trigger variant trigger frame.

Strawpoll #4: Move to accept resolutions to following CIDs in doc 11-17/729r0 (3 CIDs)

- 7250, 7251, 7252

Results: passed unanimously.

* 1. **11-17/0730r0, “Resolution for CID7255”**

CID 7255

* + 1. Presented by Kiseon Ryu (LG)

Strawpoll #5: Move to accept resolutions to following CIDs in doc 11-17/730r1 (1 CID)

- 7255

Results: passed unanimously.

**Tuesday, May 9th, 2017, PM2 TGax Session (16:00-18:00PM)**

1. **The meeting called to order at 16:00pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. xx people are in the room.
2. **Announcement**
	1. Agenda Doc.11-17/0786 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. **11-17/0340r3, “CR for 11-1-3-10”**

CID 3055, 5165, 5797, 5905, 6554, 6556, 6560, 7961, 7977, 7978, 7979, 9334, 9561, 9696, 9868, 6228, 6223, 4708, 6917, 6918, 7997, 9562, 9563 (23 CIDs)

* + 1. Presented by Yonggang Fang (ZTE)

R3 presented and R4 comes back later.

* 1. **11-17/0576r2, “Resolutions for Comments related to Extended Range Beacon”**
		1. Presented by Po-Kai Huang (Intel)

Strawpoll #6: Which option do you support for the resolution of ER Beacon comments?

Option 1: 11-17/0340r3 (keep ER Beacon)

Option 2: 11-17/0576r2 (remove ER Beacon)

21 for option 1, 1 for option 2 🡪 Will resolve the related CIDs using 11-17/0340r3.

* 1. **11-17/0601r3, “Misc OM Control”**
		1. Presented by Alfred Asterjadhi (Qualcomm)

CID 5851, 7249, 9495, 9803, 6260, 7051, 7192, 7193

Strawpoll #7: Move to accept resolutions to following CIDs in doc 11-17/0601r4 (8 CIDs)

- 5851, 7249, 9495, 9803, 6260, 7051, 7192, 7193

Results: passed unanimously.

* 1. **11-17/0809r0, “CIDs related to Dual Beacon”**
		1. Presented by Abhishek Patil (Qualcomm)

CID 3054, 5392, 5393, 9415, 5390, 5391, 6179, 7042

C: Request to defer the strawpoll after resolving the 17/0340.

The strawpoll has been deferred.

* 1. **11-17/0733r0, “comment-resolution-on-TIM-broadcast”**
		1. Presented by Jason Yuchen Guo (Huawei Technologies)

CID ~~5973~~, 8543, 9697, ~~9870~~, 9871

C: Request to defer the resolution of CID 5973 and 9870.

Strawpoll #8: Move to accept resolutions to following CIDs in doc 11-17/0733r0 (3 CIDs)

- 8543, 9697, 9871

Results: passed unanimously.

* 1. **11-17/0735r3, “CR to CID4850 and CID8153 on TWT”**
		1. Presented by Jarkko Kneckt (Apple)

CID 4850, 8153

Strawpoll #9: Move to accept resolutions to following CIDs in doc 11-17/0735r4 (2 CIDs)

- 4850, 8153

Results: passed unanimously.

* 1. **11-17/0751r0, “Comment Resolution on retransmission of OFDMA random access”**
		1. Presented by Yunbo Li (Huawei)

CID 3239, 5724, 7152, 8281, 8305, 9714, 6006, 6007, 7427, 9572

C: Don’t have to mention EDCA and scheduled transmission by the basic trigger frame under the section describing retransmission procedure for UORA.

SP deferred.

**Tuesday, May 9th, 2017, PM3 TGax Session (19:30-21:30PM)**

1. **The meeting called to order at 16:00pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. 31 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-17/0786 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. **11-17/0727r0, “Proposed resolutions for comments related to CIDs in 10.9”**

CIDs 4750, 5947, 5960, 7253, 7666, 7763, 7885

* + 1. Presented by James Yee (Mediatek)

The presenter will come back with a modified version and related strawpoll.

No other presenter is ready for presentation. The session is recessed.

**Wednesday, May 10th, 2017, PM1 TGax Session (13:30-15:30PM)**

1. **The meeting called to order at 13:30pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. xx people are in the room.
2. **Announcement**
	1. Agenda Doc.11-17/0786 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. **11-17/0677r0, “CRs for Section 9.3.1.9 block ack - part 2”**

CIDs 6275, 5824, 5880, 5764, 7474, 7309, 7391, 7526, 6951, 6950, 7133, ~~4852~~, 3109, 3161, 3008, 3007, 3009, 3446, 5450, 5451, 5452, 5057, 5128, 9624, 9623, 9622, 9361, 7732, 7731, 7728, 7726, 8480, 10191

* + 1. Presented by George Cherian (Qualcomm)

C: Some members objected to the resolution of CID4852 regarding the BA bitmap length definition for future amendment.

C: CID4852 was removed from the document for further discussion.

Strawpoll #10: Move to accept resolutions to following CIDs in doc 11-17/0677r0 (32 CIDs)

- 6275, 5824, 5880, 5764, 7474, 7309, 7391, 7526, 6951, 6950, 7133, 3109, 3161, 3008, 3007, 3009, 3446, 5450, 5451, 5452, 5057, 5128, 9624, 9623, 9622, 9361, 7732, 7731, 7728, 7726, 8480, 10191

Results: passed unanimously.

* 1. **11-17/0751r1, “Comment Resolution on retransmission of OFDMA random access”**

CIDs 3239, 5724, 7152, 8281, 8305, 9714, 6006, 6007, 7427, 9572

* + 1. Presented by Yunbo Li (Huawei)

Strawpoll #11: Move to accept resolutions to following CIDs in doc 11-17/0751r2 (10 CIDs)

- 3239, 5724, 7152, 8281, 8305, 9714, 6006, 6007, 7427, 9572

Results: passed unanimously.

* 1. **11-17/0340r4, “CR for 11-1-3-10”**

CIDs 3055, 5165, 5797, 5905, 6554, 6556, 6560, 7961, 7977, 7978, 7979, 9334, 9561, 9696, 9868, 6228, 6223, 4708, 6917, 6918, 7997, 9562, 9563

* + 1. Presented by Yonggang Fang (ZTE)

Strawpoll #12: Move to accept resolutions to following CIDs in doc 11-17/0340r5 (23 CIDs)

- 3055, 5165, 5797, 5905, 6554, 6556, 6560, 7961, 7977, 7978, 7979, 9334, 9561, 9696, 9868, 6228, 6223, 4708, 6917, 6918, 7997, 9562, 9563

Results: passed unanimously.

* 1. **11-17/0809r1, “CIDs related to Dual Beacon”**

CIDs 3054, 5392, 5393, 9415, 5390, 5391, 6179, 7042

* + 1. Presented by Abhishek Patil (Qualcomm)

Strawpoll #13: Move to accept resolutions to following CIDs in doc 11-17/0809r1 (8 CIDs)

- 3054, 5392, 5393, 9415, 5390, 5391, 6179, 7042

Results: passed unanimously.

* 1. **11-17/0744r1, “CR for 10.3.2.4 and 27.2.2 Part II”**

CIDs 3182, 3192, 5160, 5170, 5384, 5457, 5458, 5459, 5460, 5464, 5465, 5467, 5558, 5794, 5800, 6177. 6593, 7160, 7567, 7568, 7662, 7794, 8139, 8146, 8148, 8353, 8402, 8403, 9273, 9284, 9381, 9414, 9419, 9420, 9421, 9680, 9700, 9701, 9847, 9874, 10325, 10326, 6132

* + 1. Presented by Po-Kai Huang (Intel)

The presentation has not been finished. It will come back at PM2.

**Wednesday, May 10th, 2017, PM1 TGax Session (16:00-18:00PM)**

1. **The meeting called to order at 16:00pm by Chao-Chun Wang (MediaTek), the co-chair of the TGax MAC Ad hoc**
	1. 33 people are in the room.
2. **Announcement**
	1. Agenda Doc.11-17/0786 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. **11-17/0744r2, “CR for 10.3.2.4 and 27.2.2 Part II”**

CIDs 3182, 3192, 5160, 5170, 5384, 5457, 5458, 5459, 5460, 5464, 5465, 5467, 5558, 5794, 5800, 6177. 6593, 7160, 7567, 7568, 7662, 7794, 8139, 8146, 8148, 8353, 8402, 8403, 9273, 9284, 9381, 9414, 9419, 9420, 9421, 9680, 9700, 9701, 9847, 9874, 10325, 10326, 6132

* + 1. Presented by Po-Kai Huang (Intel)

C: Prefer option 2 when considering fairness in case of MU cascading sequence.

A: I am fine with either one.

*Strawpoll #1: Which option do you prefer?*

*Opt1: 10*

*Opt2: 11*

*Strawpoll #2: Any objection to go with option 2?*

*No objection*

C: Proposed to use unicast trigger.

Strawpoll #15: Move to accept resolutions to following CIDs in doc 11-17/0744r3 (37 CIDs)

- 3182, 3192, 5160, 5170, ~~5384~~, 5457, 5458, 5459, 5460, 5464, 5465, 5467, 5558, 5794, 5800, ~~6177~~, 6593, ~~7160~~, 7567, 7568, 7662, 7794, 8139, 8146, 8148, 8353, 8402, ~~8403~~, 9273, 9284, ~~9381~~, ~~9414~~, 9419, 9420, 9421, 9680, 9700, 9701, 9847, 9874, 10325, 10326, 6132

Results: passed unanimously.

* 1. **11-17/0727r1, “Proposed resolutions for comments related to 10.9”**

CIDs 4750, 5947, 5960, 7253, 7666, 7763, 7885

* + 1. Presented by James Yee (Mediatek)

Strawpoll #16: Move to accept resolutions to following CIDs in doc 11-17/0727r1 (7 CIDs)

- 4750, 5947, 5960, 7253, 7666, 7763, 7885

Results: passed unanimously.

* 1. **11-17/0765r1, “follow up unify queue size report”**

CIDs 8426, 8427

* + 1. Presented by Zhou Lan (Broadcom)

C: For the STA only support single TID AMPDU, it does not matter that it is per AC or per TID.

Strawpoll #17: Do you support to

* Replace the current BSR Control field with the proposed new BSR Control field as shown in slide 9 of doc 765/r2.

Results: Y/N/A: 14/21/7

* 1. **11-17/0607r0, “CR Misc BSR Control”**

CIDs 8426, 8427, , 5000, 7132, 7304, 9358, 3105, 4735

* + 1. Presented by Alfred Asterjadhi (Qualcomm)

C: Increasing the scaling factor is not a complete solution.

Strawpoll #18: doc 11-17/0607r1 (CID 8427)

- Option1: approx. maximum scaling factor of 32K

- Option2: approx. maximum scaling factor of 64K

- Option3: approx. maximum scaling factor of 16K

Results: Opt1: 22, Opt 2: 0, Opt 3: 10

Strawpoll #19: Move to accept resolutions to following CIDs in doc 11-17/0607r1 (7 CIDs)

- 8427, 5000, 7132, 7304, 9358, 3105, 4735

Results: passed unanimously.

* 1. **11-17/0073r5, “CR for 27.5.2.7 NDP feedback report”**

CIDs 7387, 6144, 7386, 8304, 9101, 9573

* + 1. Presented by Laurent Carious (Intel)

Strawpoll #20: Move to accept resolutions to following CIDs in doc 11-17/0073r5 (6 CIDs)

- 7387, 6144, 7386, 8304, 9101, 9573

Results: passed unanimously.

MAC sessions adjourned at 18:00, May 10.