IEEE P802.11
Wireless LANs

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| IEEE 802.11 Task Group AYJuly and August 2017 Conference Meeting Minutes |
| Date: 2017-09-03 |
| Author: |
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Abstract

Task Group AY meeting minutes from its teleconference call session on July 26, August 2, August 9, August 16, August 23, and August 30, 2017.

**IEEE 802.11 Task Group AY**

**July 26, 2017 Conference Call Meeting**

**Wednesday, July 26, 2017, Conference Call Session (10:00-11:00 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1166r2
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the list of updated task group documents since the end of the July plenary (slide 10)
6. Chair reviewed the meeting agenda for the conference call (slide 11).
7. Presentations
	1. Presentation by Cheng Chen (Intel), Resolution to 11ay related CIDs, Doc. IEEE 11-17/1112r2.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to accept comment resolutions as proposed in doc 11-17/1112r2?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	2. Presentation by Claudio da Silva (Intel), Proposed resolution to BF PHY related CIDs, Doc. IEEE 11-17/1175r0.
		1. Opened the floor for discussion. Edits are made online and the latest version of the contribution for the task group to consider a straw poll is 17/1175r1.
		2. Straw Poll #1. Do you agree to accept the resolutions given in 11-17/1175-01 to the following CIDs: 74, 76, 102, 292, 295, 297, 301, 332, 399, 430, and 431?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
8. Chair reminded all to send an email to chair or secretary in order to record their attendance.
9. Meeting adjourned at 11:02 ET.

**Appendix A: July 26, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Osama Aboul-Magd (Huawei)
* Edward Au (Huawei)
* George Calcev (Huawei)
* Cheng Chen (Intel)
* Carlos Cordeiro (Intel)
* Claudio da Silva (Intel)
* Assaf Kasher (Qualcomm)
* Jinnan Liu (Huawei)
* Artyom Lomayev (Intel)
* Bo Lu (Tensorcom)
* Hiroyuki Motozuka (Panasonic)
* Li-Hsiang Sun (InterDigital)
* Lochan Vermal (Qualcomm)
* Xiaofei Wang (InterDigital)
* Gaius Wee (Panasonic)
* Yan Xin (Huawei)

**IEEE 802.11 Task Group AY**

**August 2, 2017 Conference Call Meeting**

**Wednesday, August 2, 2017, Conference Call Session (10:00-11:00 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1186r0
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the meeting agenda for the conference call (slide 10).
6. Presentations
	1. Presentation by Claudio da Silva (Intel), Proposed resolution to BF PHY related CIDs, Doc. IEEE 11-17/1175r2.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to accept the resolution given in 17/1175-02 to CID 77?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	2. Presentation by Claudio da Silva (Intel), Contributions to the BRP TXSS procedure, Doc. IEEE 11-17/1181r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in 17/1181r0 into the 802.11ay draft spec?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	3. Presentation by Artyom Lomayev (Intel), 30.6.7.4 Modulation mapping, Doc. IEEE 11-17/1170r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to define the modulation description for OFDM mode as in (11-17-1170-00-00ay 30 6 7 4 Modulation mapping)?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
7. Chair reminded all to send an email to chair or secretary in order to record their attendance.
8. Meeting adjourned at 10:52 ET.

**Appendix B: August 2, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Osama Aboul-Magd (Huawei)
* Amelia Andersdotter (Article 19)
* Edward Au (Huawei)
* George Calcev (Huawei)
* Jiamin Chen (Huawei)
* Claudio da Silva (Intel)
* Chris Hansen (Peraso)
* Assaf Kasher (Qualcomm)
* Sang Kim (LG Electronics)
* Jinnan Liu (Huawei)
* Artyom Lomayev (Intel)
* Hanqing Lou (InterDigital)
* Alphan Sahin (InterDigital)
* Gaius Wee (Panasonic)
* Yan Xin (Huawei)

**IEEE 802.11 Task Group AY**

**August 9, 2017 Conference Call Meeting**

**Wednesday, August 9, 2017, Conference Call Session (10:00-11:00 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1187r1
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the meeting agenda for the conference call (slide 10).
6. Graham Smith (SR Technology) led the discussion on whether it is an appropriate time to remove DMG OFDM, which is an obsolete feature, from the IEEE 802.11-2016 standards.
	1. Discussion takes place and the main points are summarized as follows:
		1. A member supports that the feature be removed but mentions that the resolution as stated in 17/0989r1 is not correct. It will be more complicated than that stated in the document because there are many subclauses that are built upon the features. The member suggests Graham prepares a contribution detailing where (e.g., which page number and line number) the DMG OFDM be removed.
		2. Another member echoes the first member’s comment and comments that we need to review the IEEE 802.11-2016 standards carefully and determine which parts be removed. It is not as simple as the PHY part in subclause 20.5 and the Annex I.7, but also some sections related to timing-related constants, transmit and receive procedures, etc.
		3. A third member also supports the removal of DMG OFDM in general because it has coexistence issue with single-carrier DMG. The member also comments that a lot of works is required and is willing to support Graham to prepare the contribution.
		4. A fourth member comments that specific detailed actions are required and it would be helpful to review the original contribution in IEEE 802.11ad that introduced DMG OFDM.
		5. A fifth member asks if the removal of DMG OFDM will have any impact on EDMG OFDM. The first member replies that it is an orthogonal issue and there is no known coexistence issue between EDMG OFDM and single carrier.
	2. Graham will prepare a contribution at detailing the removal instructions. Chair said he will allocate time for Graham to review his contribution either in a teleconference call or in September interim. Details to be followed.
7. Presentations
	1. Presentation by Lei Huang (Panasonic), CR on 10.38.9.2.3.1, Doc. IEEE 11-17/1185r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to accept comment resolution as proposed in doc 11-17/1185r0?
			1. Chair asked if there is any member who votes no or abstain. Yes. Roll call is taken.
			2. Straw poll is passed (Yes: 16, No: 0, Abstain: 6)
	2. Presentation by Lei Huang (Panasonic), MU-MIMO BF selection, Doc. IEEE 11-17/1184r2.
		1. Opened the floor for discussion.
		2. Due to the time limit, Lei will ask the group to consider approval of a straw poll in the next call.
8. Chair reminded all to send an email to chair or secretary in order to record their attendance.
9. Meeting adjourned at 11:00 ET.

**Appendix C: August 9, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Osama Aboul-Magd (Huawei)
* Amelia Andersdotter (Article 19)
* Edward Au (Huawei)
* George Calcev (Huawei)
* Carlos Cordeiro (Intel)
* Claudio da Silva (Intel)
* Mark Hamilton (Ruckus/Brocade)
* Xiao (Tony) Han (Huawei)
* Thomas Handte (Sony)
* Chris Hansen (Peraso)
* Allen Heberling (Tensorcom)
* Lei Huang (Panasonic)
* Dzevdan Kapetanovic (Ericsson)
* Sang Kim (LG Electronics)
* Wei Lin (Huawei)
* Jinnan Liu (Huawei)
* Assaf Kasher (Qualcomm)
* Artyom Lomayev (Intel)
* Mengyao Ma (Huawei)
* Kome Oteri (InterDigital)
* Jon Rosdahl (Qualcomm)
* Alphan Sahin (InterDigital)
* Graham Smith (SR Technology)
* Dorothy Stanley (HPE)
* Solomon Trainin (Qualcomm)
* Yan Xin (Huawei)

**IEEE 802.11 Task Group AY**

**August 16, 2017 Conference Call Meeting**

**Wednesday, August 16, 2017, Conference Call Session (10:00-11:00 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1187r1
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the meeting agenda for the conference call (slide 10).
6. Chair made an announcement on the duration of the next 3 teleconference calls and the latest version of the draft amendment and comment database for CC24.
7. Presentations
	1. Presentation by Lei Huang (Panasonic), MU-MIMO BF selection, Doc. IEEE 11-17/1184r2.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to accept the proposed text modifications in doc 11-17/1184r2?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	2. Presentation by Artyom Lomayev (Intel), Proposed Comment Resolution for CID 428: 30.7 EDMG Transmit Procedure, Doc. IEEE 11-17/1180r1.
		1. Opened the floor for discussion. Edits are suggested for Figure 3 of the contribution and the third last paragraph in page 5.
	3. Presentation by Solomon Trainin (Qualcomm), TX-RX Vector for scrambler field indication, Doc. IEEE 11-17/1221r2. This submission is related to comment resolution for CID 466.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in 17/1221r2 into the 802.11ay draft amendment?
			1. Chair asked if there is any member who votes no or abstain. None
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.

1. Chair reminded all to send an email to chair or secretary in order to record their attendance.
2. Meeting adjourned at 10:58 ET.

**Appendix D: August 16, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Amelia Andersdotter (Article 19)
* Edward Au (Huawei)
* George Calcev (Huawei)
* Carlos Cordeiro (Intel)
* Claudio da Silva (Intel)
* Xiao (Tony) Han (Huawei)
* Thomas Handte (Sony)
* Assaf Kasher (Qualcomm)
* Artyom Lomayev (Intel)
* Dorothy Stanley (HPE)
* Li-Hsiang Sun (InterDigital)
* Solomon Trainin (Qualcomm)
* Yan Xin (Huawei)

**IEEE 802.11 Task Group AY**

**August 23, 2017 Conference Call Meeting**

**Wednesday, August 23, 2017, Conference Call Session (10:00-11:30 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1239r1
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the meeting agenda for the conference call (slide 10).
6. Chair made an announcement on the duration of the next 2 teleconference calls and the call for contribution and comment resolution in September 2017 interim.
7. Presentations
	1. Presentation by Solomon Trainin (Qualcomm), Flow control for EDMG devices, Doc. IEEE 11-17/1195r1.
		1. Opened the floor for discussion.
		2. Due to the time limit, 17/1196r0 is postponed.
	2. Presentation by Claudio da Silva (Intel), OFDM spoofing error length indicator, Doc. IEEE 11-17/1182r2.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in 17/1182r2 into the 802.11ay draft spec?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	3. Presentation by Oren Kedem (Intel), EDMG Multi-TID Block Ack Support, Doc. IEEE 11-17/1229r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in 17/1229r0 into the 802.11ay draft spec for CIDs 138, 214, 339, 451, 471 and 472?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	4. Presentation by Oren Kedem (Intel), Proposed resolution to 11ay related CIDs, Doc. IEEE 11-17/1230r1.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in 17/1230r3 into the 802.11ay draft spec for CIDs 104, 195, 196, 450, 212, 449, 254, 267, 268, 269, 379, and 451?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
		3. Due to the time limit, the remaining CIDs will be postponed to September interim.
8. Chair reminded all to send an email to chair or secretary in order to record their attendance.
9. Meeting adjourned at 11:31 ET.

**Appendix E: August 23, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Edward Au (Huawei)
* George Calcev (Huawei)
* Cheng Chen (Intel)
* Dana Ciochina (Sony)
* Claudio da Silva (Intel)
* Xiao (Tony) Han (Huawei)
* Thomas Handte (Sony)
* Oren Kedem (Intel)
* Joe Levy (InterDigital)
* Sang Kim (LG Electronics)
* Jinnan Liu (Huawei)
* Artyom Lomayev (Intel)
* Hiroyuki Motozuka (Panasonic)
* Takenori Sakamoto (Panasonic)
* Rob Sun (Huawei)
* Solomon Trainin (Qualcomm)
* Gaius Wee (Panasonic)
* Yan Xin (Huawei)
* Rui Yang (InterDigital)

**IEEE 802.11 Task Group AY**

**August 30, 2017 Conference Call Meeting**

**Wednesday, August 30, 2017, Conference Call Session (10:00-11:00 ET)**

1. The IEEE 802.11ay task group meeting was called to order at 10:00 ET by the Chair, Edward Au (Huawei).
2. Chair introduced himself and AY leadership.
3. Agenda Doc. IEEE 802.11-17/1240r0
4. Chair reviewed the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics, and reminders on Task Group rules, including meeting guidelines and attendance recording procedures.
	1. Chair asked if anyone has any questions about the IEEE-SA patent policy, participation in IEEE 802 meetings, logistics or reminders. No questions.
	2. Chair asked if anybody has any disclosures related to the patent policy. None.
	3. Chair asked if there were any questions on any of the above items. None.
	4. Chair reminded all to record their attendance by sending an email to chair and secretary.
5. Chair reviewed the meeting agenda for the conference call (slide 10). Cheng Chen (Intel) commented that the titles of his contributions 17/1214r0 and 17/1215r0 were not shown correctly. Chair agreed and he would upload revision 1 of the agenda slide deck right after the call.
6. Presentations
	1. Presentation by Artyom Lomayev (Intel), Proposed comment resolution for CID 428: 30.7 EDMG transmit procedure, Doc. IEEE 11-17/1180r2. This presentation is a follow-up of Artyom’s presentation on August 16 that addressed comments from a few task group members.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to accept the proposed comment resolution for CID 428 as defined in (11-17-1180-02-00ay Proposed Comment Resolution for CID 428 30 7 EDMG Transmit Procedure)?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	2. Presentation by Cheng Chen (Intel), SM power save for 11ay, Doc. IEEE 11-17/1212r0, and Draft text for SM power save for 11ay, Doc. IEEE 11-17/1213r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in [11-17-1213-00-00ay-draft-text-for-sm-power-save-for-11ay.docx] into the 802.11ay draft spec?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
	3. Presentation by Cheng Chen (Intel), MU-MIMO power save for 11ay, Doc. IEEE 11-17/1214r0, and Draft text for MU-MIMO power save for 11ay, Doc. IEEE 11-17/1215r0.
		1. Opened the floor for discussion.
		2. Straw Poll #1. Do you agree to include the text proposed in [11-17-1215-00-00ay-draft-text-for-mu-mimo-power-save-for-11ay.docx] into the 802.11ay draft spec, with an understanding that there is an editorial fix on Figure 3?
			1. Chair asked if there is any member who votes no or abstain. None.
			2. Chair asked if there is any objection to approve the straw poll with unanimous consent. None.
			3. Straw poll passed.
7. Chair reminded all to send an email to chair or secretary in order to record their attendance.
8. Meeting adjourned at 10:51 ET.

**Appendix F: August 30, 2017, 10:00 a.m. ET Conference Call Attendance Log**

**Name and Affiliation:**

* Amelia Andersdotter (Article 19)
* Edward Au (Huawei)
* Ilya Bolotin (Intel)
* George Calcev (Huawei)
* Cheng Chen (Intel)
* Dana Ciochina (Sony)
* Thomas Handte (Sony)
* Allen Heberling (Tensorcom)
* Carl Kain (USDOT)
* Jinnan Liu (Huawei)
* Artyom Lomayev (Intel)
* Martin Lorenz (Intel)
* Hiroyuki Motozuka (Panasonic)
* Kome Oteri (InterDigital)
* Alphan Sahin (InterDigital)
* Takenori Sakamoto (Panasonic)
* Jonathan Segev (Intel)
* Gaius Wee (Panasonic)
* Yan Xin (Huawei)
* Rui Yang (InterDigital)