IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IEEE 802.11 Task Group AY  March 2019 Vancouver Meeting Minutes | | | | |
| Date: 2019-03-15 | | | | |
| Author: | | | | |
| Name | Affiliation | Address | Phone | email |
| Jeorge S. Hurtarte | LitePoint | 575 Maude Court,  Sunnyvale, CA 94085 | +1-408-456-5000, x1427 | [jeorge.hurtarte@litepoint.com](mailto:jeorge.hurtarte@litepoint.com) |

Abstract

Task Group AY meeting minutes from the IEEE 802.11 Vancouver session, March 10-15, 2019.

**IEEE 802.11 Task Group AY**

**March 2019 Vancouver Plenary Meeting**

**March 10-15, 2019**

**Monday, March 11, 2019, PM2 Session (16:00-18:00)**

Attendance: around 34 people

1. The IEEE 802.11ay task group meeting was called to order at 16:00 by the Chair, Edward Au (Huawei).
2. Agenda Doc. IEEE 802.11-18/0229r2.
3. Chair introduced the TG leadership: Vice Chair: Sang Kim (LG Electronics), Secretary: Jeorge Hurtarte (LitePoint), and Editor: Carlos Cordeiro (Intel)
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 (slides 4-11)
   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.
   5. Chair reminded all to upload their presentations.
5. Chair reviewed the meeting time slots, locations and agenda items for the week (see slide 13 of the agenda document).
6. Chair proceeded to discuss the agenda items for the Monday, March 11, 2019, Monday PM2 session (slide 15) and asked if anyone wants to add any additional agenda items (none).
7. Chair proceeded to discuss the agenda items for the week (slide 16) and asked if anyone wants to add any additional agenda items (none).
8. Chair reviewed the progress of the Task Group AY and a list of contributions being discussed in the teleconference calls (slides 17-19).
9. Chair reviewed Task Group Documents (slide 20).
10. Motion #573: Move to approve Task Group AY minutes of meetings from January 2019 interim:

<https://mentor.ieee.org/802.11/dcn/19/11-19-0225-00-00ay-tg-ay-january-2019-st-louis-meeting-minutes.docx>

* 1. Move: Assaf Kasher
  2. Second: Claudio da Silva
  3. No objections noted. Unanimous consent.
  4. The January 2019 interim meeting minutes were approved.

1. Motion #574: Move to approve Task Group AY minutes of the teleconference calls on March 1, 2019: <https://mentor.ieee.org/802.11/dcn/19/11-19-0307-00-00ay-tg-ay-march-1-2019-conference-call-meeting-minutes.docx>
   1. Move: Assaf Kasher
   2. Second: Claudio da Silva
   3. No objections noted. Unanimous consent.
   4. The March 1 conference call meeting minutes was approved.
2. Chair reviewed the submissions scheduled for the week (slides 23-27).
3. Chair reviewed the agenda setting for the week (slide 29).
4. Chair reviewed the timeline the task group approved in the November 2018 plenary (slide 30).
5. Presentations/Comment Resolutions
   1. Presentation by Chris Hansen (Peraso), Scope of Comments for Recirculation, Doc. IEEE 11-19/0380r1.
      1. Opened floor for discussion.
   2. Presentation by Alecsander Eitan (Qualcomm), CIDs-related-to-NTX-and-NSTS, Doc. IEEE 11-19/0308r0.
      1. Opened floor for discussion.
   3. Presentation by Alecsander Eitan (Qualcomm), CIDs-related-to-NTX-and-NSTS, Doc. IEEE 11-19/0318r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, and these CIDs are ready for motion.
6. Meeting recessed at 17:42 and will resume on Tuesday AM2.

**Tuesday, March 12, 2019, AM2 Session (10:30-12:30)**

Attendance: around 35 people

1. The IEEE 802.11ay task group meeting was called to order at 16:00 by the Chair, Edward Au (Huawei).
2. Agenda Doc. IEEE 802.11-18/0229r3.
3. Chair introduced the TG leadership: Vice Chair: Sang Kim (LG Electronics), Secretary: Jeorge Hurtarte (LitePoint), and Editor: Carlos Cordeiro (Intel)
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 (slides 4-11)
   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.
   5. Chair reminded all to upload their presentations.
5. Chair proceeded to discuss the agenda items for the Tuesday, March 12, 2019, Tuesday AM2 session (slide 36) and asked if anyone wants to add any additional agenda items (none).
6. Presentations/Comment Resolutions
   1. Presentation by Mohamed Abouelseoud (Sony), Proposed resolution of CIDs 4212, 4232, 4286, Doc. IEEE 11-19/0347r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, and CIDs 4212 and 4232 are ready for motion. Will hold off on CID 4286.
   2. Presentation by Solomon Trainin (Qualcomm), Resolution of LB239 CIDs 4003, 4004, 4026, 4284, 4304, 4305, 4351, 4352, 4357, 4358, 4360, 4361, 4362, 4363, 4365, 4427, Doc. IEEE 11-19/0350r1.
      1. Opened floor for discussion.
      2. No straw poll is taken, and these CIDs (except for 4026, 4284, 4357, 4360, 4362) are ready for motion.
   3. Presentation by Hiroyuki Motozuka (Panasonic), CIDs related to TXVECTOR, Doc. IEEE 11-19/0353r0.
      1. Opened floor for discussion.
      2. CIDs (except 4194 and 4464) are ready for motion.
   4. Presentation by Hiroyuki Motozuka (Panasonic), CID4467 spatial mapping, Doc. IEEE 11-19/0432r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, and this CID is ready for motion.
   5. Presentation by Takenori Sakamoto (Panasonic), Comment Resolution on CID 4210 and 4211, Doc. IEEE 11-19/0363r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, CID 4210 is ready for motion (4211 needs more discussion)
7. Meeting recessed at 12:27 and will resume on Tuesday PM2.

**Tuesday, March 12, 2019, PM2 Session (16:00-18:00)**

Attendance: around 38 people

1. The IEEE 802.11ay task group meeting was called to order at 16:00 by the Chair, Edward Au (Huawei).
2. Agenda Doc. IEEE 802.11-18/0229r4.
3. Chair introduced the TG leadership: Vice Chair: Sang Kim (LG Electronics), Secretary: Jeorge Hurtarte (LitePoint), and Editor: Carlos Cordeiro (Intel)
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 (slides 4-11)
   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.
   5. Chair reminded all to upload their presentations.
5. Chair proceeded to discuss the agenda items for the Tuesday, March 12, 2019, Tuesday PM2 session (slide 39) and asked if anyone wants to add any additional agenda items (none).
6. Presentations/Comment Resolutions
   1. Presentation by Claudio da Silva (Intel Corp.), LB239 Comment Resolution, Doc. IEEE 11-19/0323r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs (except for 4142) are ready for motion.
   2. Presentation by Alecsander Eitan (Qualcomm), CID-on-Link-Measurement, Doc. IEEE 11-19/0284r0.
      1. Opened floor for discussion.
      2. Straw Poll: Do you support this resolution of CID 4035 as proposed in 19/0284r0?

Yes: 20, No: 10, Abstain: 7

* 1. Presentation by Alecsander Eitan (Qualcomm), CIDs 4061 and 4147, Doc. IEEE 11-19/0337r0.
     1. Opened floor for discussion.
     2. No straw poll is taken, the CIDs are ready for motion.
  2. Presentation by Assaf Kasher (Qualcomm), LB239-radar-CIDs, Doc. IEEE 11-19/0321r0.
     1. Opened floor for discussion.
     2. No straw poll is taken, the CIDs are ready for motion except for 4477, 4309, 4416
  3. Presentation by Assaf Kasher (Qualcomm), LB239-BRP-elements-CIDs, Doc. IEEE 11-19/0355r1.
     1. Opened floor for discussion.
     2. Will continue presentation on Wednesday PM2.

1. Meeting recessed at 18:01 and will resume on Wednesday PM2.

**Wednesday, March 13, 2019, PM2 Session (16:00-18:00)**

Attendance: around 43 people

1. The IEEE 802.11ay task group meeting was called to order at 16:00 by the Chair, Edward Au (Huawei).
2. Agenda Doc. IEEE 802.11-18/0229r6.
3. Chair introduced the TG leadership: Vice Chair: Sang Kim (LG Electronics), Secretary: Jeorge Hurtarte (LitePoint), and Editor: Carlos Cordeiro (Intel)
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 (slides 4-11)
   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.
   5. Chair reminded all to upload their presentations.
5. Chair proceeded to discuss the agenda items for the Wednesday, March 13, 2019, Tuesday PM2 session (slide 42) and asked if anyone wants to add any additional agenda items (none).
6. Presentations/Comment Resolutions
   1. Presentation by Assaf Kasher (Qualcomm), LB239-BRP-elements-CIDs, Doc. IEEE 11-19/0355r1.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion, except for 4166 and 4262
   2. Presentation by Lei Huang (Panasonic), Comment resolution on MIMO BF: Part I, Doc. IEEE 11-19/0333r2.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion, except for 4334, 4336, 4246
   3. Presentation by Lei Huang (Panasonic), Comment resolution on spatial sharing, Doc. IEEE 11-19/0362r2.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CID is ready for motion
   4. Presentation by Carlos Cordeiro (Intel), Comments on 11ay D3.0, Doc. IEEE 11-19/0297r3.
      1. Opened floor for discussion.
      2. No straw poll is taken, CIDs 4079, 4294, 4000, 4375, 4458, 4377, 4366, 4367, 4379, 4381, 4382, 4383, 4296, 4207, 4016, 4376, 4378, 4384, 4380, 4417, and 4227 are ready for motion,
   5. Presentation by Solomon Trainin (Qualcomm), Resolution of LB239 CIDs 4003 4004 4026 4284 4304 4305 4351 4352 4357 4358 4360 4361 4362 4363 4365 4427, Doc. IEEE 11-19/0350r2.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion
   6. Presentation by Hiroyuki Motozuka (Panasonic), Comment Resolution on CID 4210 and 4211, Doc. IEEE 11-19/0363r1.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion
   7. Presentation by Alecsander Eitan (Qualcomm), CIDs-related-to-DMG-Link-Margin-element, Doc. IEEE 11-19/0318r1.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion.
7. Meeting recessed at 18:01 and will resume on Thursday AM1.

**Thursday, March 14, 2019, AM1 Session (08:00-10:00)**

Attendance: around 36 people

1. The IEEE 802.11ay task group meeting was called to order at 08:00 by the Chair, Edward Au (Huawei).
2. Agenda Doc. IEEE 802.11-18/0229r8.
3. Chair introduced the TG leadership: Vice Chair: Sang Kim (LG Electronics), Secretary: Jeorge Hurtarte (LitePoint), and Editor: Carlos Cordeiro (Intel)
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 (slides 4-11)
   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.
   5. Chair reminded all to upload their presentations.
5. Chair proceeded to discuss the agenda items for the Wednesday, March 13, 2019, Tuesday PM2 session (slide 45) and asked if anyone wants to add any additional agenda items (none).
6. Presentations/Comment Resolutions
   1. Presentation by Assaf Kasher (Qualcomm), LB239-PHY-Measurements-CIDs, Doc. IEEE 11-19/0438.
      1. Opened floor for discussion.
   2. Presentation by Solomon Trainin (Qualcomm), TDD link loss maintenance, Doc. IEEE 11-19/0280r0.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion
   3. Presentation by Kazuyuki Sakoda (Sony), CID 4219 4220 4225, Doc. IEEE 11-19/0471r3.
      1. Opened floor for discussion.
      2. No straw poll is taken, CID 4219 are ready for motion, CIDs 4220 and 4225 need further discussion
   4. Presentation by Alecsander Eitan (Qualcomm), CIDs-related-to-NTX-and-NSTS, Doc. IEEE 11-19/0308r3.
      1. Opened floor for discussion.
      2. No straw poll is taken, and these CIDs are ready for motion.
   5. Presentation by Hiroyuki Motozuka (Panasonic), CIDs related to TXVECTOR, Doc. IEEE 11-19/0353r2.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion.
   6. Presentation by Lei Huang (Panasonic), Comment resolution on MIMO BF: Part I, Doc. IEEE 11-19/0333r4.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion
   7. Presentation by Mohamed Abouelseoud (Sony), Proposed resolution of CIDs 4212, 4232, 4286, Doc. IEEE 11-19/0347r1.
      1. Opened floor for discussion.
      2. No straw poll is taken, the CIDs are ready for motion
7. Motions
   1. Motion #575. Comment resolution. Move to accept the comment resolution for CIDs 4038, 4041, 4261, 4096, 4057, 4089, 4260, and 4312 as proposed in 19/0308r3; CIDs 4039, 4093, 4060, 4094, 4095, and 4279 as proposed in 19/0318r2; 4061 and 4147 as proposed in 19/0337r0;
      1. Move: Alecsander Eitan
      2. Second: Solomon Trainin
      3. Result: The motion is passed (25 Yes; 0 No; 1 Abstain).
   2. Motion #576. Comment resolution. Move to accept the comment resolution for CIDs 4212, 4232, and 4286 as proposed in 19/0347r2.
      1. Move: Mohamed Abouelseoud
      2. Second: Solomon Trainin
      3. Result: The motion is passed (25 Yes; 0 No; 1 Abstain).
   3. Motion #577. Comment resolution. Move to accept the comment resolution for CIDs 4003, 4004, 4304, 4305, 4351, 4352, 4358, 4361, 4363, 4427, 4362, 4026, 4284, 4357, 4360, and 4365 as proposed in 19/0350r2; CIDs 4359 and 4431 as proposed in 19/0280r1..
      1. Move: Solomon Trainin
      2. Second: Alecsander Eitan
      3. Result: The motion is passed (26 Yes; 0 No; 1 Abstain).
   4. Motion #578. Comment resolution. Move to accept the comment resolution for CIDs 4157, 4190, 4191, 4194, 4464, 4080, 4081, and 4193 as proposed in 19/0353r3; 4467 as proposed in 19/0432r0.
      1. Move: Hiroyuki Motozuka
      2. Second: Sang Kim
      3. Result: The motion is passed (26 Yes; 0 No; 0 Abstain).
   5. Motion #579. Comment resolution. Move to accept the comment resolution for CIDs 4210 and 4211 as proposed in 19/0363r1.
      1. Move: Takenori Sakamoto
      2. Second: Sang Kim
      3. Result: The motion is passed (25 Yes; 0 No; 1 Abstain).
   6. Motion #580. Comment resolution. Move to accept the comment resolution for CIDs 4461, 4462, 4109, 4141, 4169, 4268, 4460, 4023, 4209, 4208, 4339, 4340, 4342, and 4345 as proposed in 19/0323r1.
   7. Move: Claudio da Silva
   8. Second: Sang Kim
   9. Result: The motion is passed (26 Yes; 0 No; 1 Abstain).
   10. Motion #581. Comment resolution. Move to accept the comment resolution for CIDs 4078, 4234, and 4477 as proposed in 19/0321r0; CIDs 4259, 4258, 4036, 4037, 4205, 4311, 4314, 4318, 4319, 4320, 4317, 4263, 4044, 4323 and 4119 as proposed in 19/0355r1.
       1. Move: Alecsander Eitan
       2. Second: Salomon Trainin
       3. Result: The motion is passed (25 Yes; 0 No; 1 Abstain).
   11. Motion #582. Comment resolution. Move to accept the comment resolution for CIDs 4098, 4128, 4249, 4122, 4123, 4240, 4335, 4242, 4224, 4126, 4127, 4334, and 4336 as proposed in 19/0333r4; CID 4250 as proposed in 19/0362r2..
       1. Move: Lei Huang
       2. Second: Sang Kim
       3. Result: The motion is passed (24 Yes; 0 No; 1 Abstain).
   12. Motion #583. Comment resolution. Move to accept the comment resolution for CIDs 4079, 4294, 4000, 4375, 4458, 4377, 4366, 4367, 4379, 4381, 4382, 4383, 4296, 4207, 4016, 4376, 4378, 4384, 4380, 4417, and 4227 as proposed in 19/0297r3.
       1. Move: Carlos Cordeiro
       2. Second: Sang Kim
       3. Result: The motion is passed (26 Yes; 0 No; 1 Abstain).

* 1. Motion #584. Comment resolution. Move to accept the comment resolution for CID 4219 as proposed in 19/0471r3.
     1. Move: Kazuyuki Sakoda
     2. Second: Sang Kim
     3. Result: The motion is passed (26 Yes; 0 No; 1 Abstain).
  2. Motion #585. Bug Fixes. Move to incorporate the text change suggested in 19/0504r0 into the Draft 3.0 of the IEEE 802.11ay amendment.
     1. Move: Kazuyuki Sakoda
     2. Second: Mohamed Abouelseoud
     3. Result: The motion is passed/failed (25 Yes; 0 No; 1 Abstain).
  3. Motion #586. Comment resolution (amended motion #577). Move to accept the comment resolution for CIDs 4003, 4004, 4304, 4305, 4351, 4352, 4358, 4361, 4363, 4427, 4362, 4284, 4357, 4360, and 4365 as proposed in 19/0350r2; CIDs 4359 and 4431 as proposed in 19/0280r1..
     1. Move: Solomon Trainin
     2. Second: Alecsander Eitan
     3. Result: The motion is passed (26 Yes; 0 No; 1 Abstain).

1. Chair discussed the goals for the May 2019 interim meeting.
2. Chair discussed the upcoming teleconference schedule.
3. Chair asked if there are any more agenda items to discuss during this meeting. None.
4. Chair asked if there are any objections to adjourn the meeting. None.
5. The Task Group AY Vancouver March 2019 plenary meeting was adjourned on March 14, 2019 at 9:58.