IEEE P802.11  
Wireless LANs

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| 802.11ba  Teleconference Minutes December 2018/January 2019 | | | | |
| Date: 29-10-18 | | | | |
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Abstract

This document contains minutes from TG 802.11ba teleconference in December 2018 and January 2019.

Rev 0: Minutes for TG 802.11ba teleconference on 3rd of December 2018.

Rev 1: Slight update of the minutes for 3rd of December.

Rev 2: Minutes for TG 802.11ba teleconference on 10th of December 2018 added.

Rev 3: Minutes for TG 802.11ba teleconference on 17th of December 2018 added.

Rev 4: Minutes for TG 802.11ba teleconference on 7th of January 2019 added.

**Teleconference on Monday, December 3, 2018, 10:00 – 12:00 am (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com/))

5. Presentation

- 11-18/1931 CR for some CIDs in discovery.docs, Guoqing Li (Apple)

6. Adjourn

Please note that teleconferences are bound by the conditions stipulated by the documentation below.  Please review them and bring up any questions/concerns you may have before proceeding with the teleconference:

IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>  
Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>  
LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>  
Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>  
Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>  
Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>  
IEEE 802.11 Working Group Operations Manual –  
<https://mentor.ieee.org/802.11/dcn/09/11-09-0002-16-0000-802-11-operations-manual.doc>

1. **Chair Minyoung Park (Intel) calls the meeting to order at 10:00 am (ET).**
2. Minyoung goes through the proposed agenda and asks it there are any questions. No questions asked so the proposed agenda will be used.
3. Minyoung direct people to the links provided in the call in case of questions to the IEEE 802 and 802.11 Policy and Procedure.
4. Minyoung reminds about attendance.
5. **11-18/1931r0 “Comment Resolution for Miscellaneous Comments”, Guoqing Li(Apple):**

Guoqing goes through the proposed resolutions for CIDs 373, 782, 937, and 938. The proposed resolution is reject for all four CIDs.

**Question/Comment (Q):** I believe you can remove the last part of the resolution for CID 782 as it is redundant.

**Answer (A):** I agree.

**Q:** Regarding CID 937, I believe the commenter wants to highlight that for operation in the 2.4 GHz band there is only one channel available. I don’t think the commenter wants to change the technical contents as such.

**A:** OK, but the part that I want to emphasize is that several channels can be used in parallel.

**Q:** In this case I believe your explanation may be a bit confusing.

**A:** Now I see what you mean. I will update the motivation for the rejection to make it clearer.

Minyoung concludes that the proposed resolutions are ready to be motioned in the next f2f and reminds the presenter that revision 1 of this document needs to be uploaded.

1. **Meeting is adjourned at 10.15 am (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Intel |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Yunsong Yang | Huawei |
| 4 | Guoqing Li | Apple |
| 5 | Taewon Song | LGE |
| 6 | Sue Leicht | Self |

**Teleconference on Monday, December 10, 2018, 5:00 – 7:00 pm (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com/))

5. Presentation

- 11-18-1835-00-00ax-MAC-CR-9.10.3.X, Afred Asterjadhi (Qualcomm)

               - 18/ 2107r0  Comment Resolutions on WUR Mode element - Part 3, Suhwook Kim(LG)

6. Adjourn

Please note that teleconferences are bound by the conditions stipulated by the documentation below.  Please review them and bring up any questions/concerns you may have before proceeding with the teleconference:

IEEE Patent Policy - <http://standards.ieee.org/board/pat/pat-slideset.ppt>  
Patent FAQ - <http://standards.ieee.org/board/pat/faq.pdf>  
LoA Form - <http://standards.ieee.org/board/pat/loa.pdf>  
Affiliation FAQ - <http://standards.ieee.org/faqs/affiliationFAQ.html>  
Anti-Trust FAQ - <http://standards.ieee.org/resources/antitrust-guidelines.pdf>  
Ethics - <http://www.ieee.org/portal/cms_docs/about/CoE_poster.pdf>  
IEEE 802.11 Working Group Operations Manual –  
<https://mentor.ieee.org/802.11/dcn/09/11-09-0002-16-0000-802-11-operations-manual.doc>

1. Chair Minyoung Park (Intel) calls the meeting to order at 5:00 pm (ET).
2. Minyoung goes through the proposed agenda and asks if there is any question. No question asked and the agenda will be used.
3. Minyoung direct people to the links provided in the call in case of questions to the IEEE 802 and 802.11 Policy and Procedure.
4. Minyoung reminds about attendance.
5. Presentations

**11-18/2107r0 “Comment Resolutions on WUR Mode element – Part 3”, Suhwook Kim(LGE):** Suhwook goes through the 17 CIDs: 11, 51, 66, 118, 119, 120, 447, 448, 461, 537, 538, 726, 728, 776, 1182, 1183, 1245.

**CID 11:** No comment.

**CID 31:** Suggested to change the motivation for reject slightly. Specifically, Ack rather than ACK should be used in the motivation.

**CID 66:** Although not related specifically to this CID, there was a discussion if we should add another column where the instructions to the editor are captured, instead of including these in the same column as the resolution. The reason being that the instruction to the editor should not be seen when going for the Sponsor Ballot.

Related to CID 66, Alfred explains the background to the comment. Suhwook still believes Table 31-2 suffices. Alfred points out that the packet should be self-contained in the sense that one should not need to know the transmitter and receiver of the packet for interpreting it. Alfred believes it is easily solved in this case by stating whether a packet is a “request” or a “response”.

**CID 118:** After some discussions, Minyoung proposes that more discussion is needed, and to make progress Po-Kai, Alfred, and Suhwook should work on this together and thus CID 118 should be removed from this document.

**CID 119:** The resolution should be Revise rather than Accept. Similar to CID 118, it is suggested to involved Po-Kai in the discussion of the resolution to this CID.

**CID 120:** Suggested to update the provided text in the resolution and point out that this is a two-way signaling.

**CIDs 447, 468,461,537,538,726,728,776,1182:** No comments.

**CID 1183:** Comment about that the resolution contains a cross-reference to CID 614. Suggested to not have cross-references to other CIDs.

**CID 1245:** Comment that all WUR action frames can be protected.

Minyoung points out that revision 1 is needed on the server before the motion.

**11/18-1835r0 is deferred to next teleconference because Alfred needs to leave the meeting.**

1. **Meeting is adjourned at 6.06 pm (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Intel |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Yunsong Yang | Huawei |
| 4 | Suhwook Kim | LGE |
| 5 | Taewon Song | LGE |
| 6 | Eunsung Park | LGE |
| 7 | Dongguk Lim | LGE |
| 8 | Po-Kai Huang | Intel |
| 9 | Alfred Asterjadhi | Qualcomm |

**Teleconference on Monday, December 3, 2018, 17:00 – 19:00 (ET)**

1. Called to order at 17:00 US ET by Minyoung Park.
   * Leif is not present. Yunsong Yang volunteers to keep the meeting minutes.
2. Attendance:
   * Minyoung Park (Intel)
   * Yunsong Yang (Huawei)
   * Po-Kai Huang (Intel)
   * Alfred Asterjadhi (Qualcomm)
   * Joseph Levy (InterDigital)
   * Suhwook Kim (LGE)
   * Jeongki Kim (LGE)
   * Xiaofei Wang (InterDigital)
3. Approval of agenda (previously sent in e-mail and shown on the screen)

* No changes, comments or questions.
* Agenda is approved.

1. Review patent policy and guidelines
   * No items identified.
2. Presentation
   * 11-18-1835-00-00ba-mac-cr-9-10-3-x (Alfred, Qualcomm)
     + CID 32: no comments.
     + CID 87: no comments.
     + CID 88: no comments.
     + CID 292: no comments.
     + CID 387: no comments.
     + CID 392: changed the resolution from Rejected to Revised. We have agreed to change transmit ID to transmitter ID.
     + CID 394: no comments.
     + CID 395: Changed the text, because the FCS can be CRC or MIC based on the vendor’s choice on the use of protection on the WUR Vendor Specific frame.
     + CID 396: same as CID 395.
     + CID 720: no comments.
     + CID 850: no comments.
     + CID 884: no comments.
     + CID 885: no comments.
     + CID 1171: discussed if the Length field is always set to 1, considering forward compatibility to potential future extension in the frame body of WUR Discovery frame. There was no agreement on whether such forward compatibility is desired or needed. Need more offline discussion. Not ready for motion.
     + CID 1239: no comments.
     + All CIDs, except CID 1171, are ready for motion.
     + Will be updated to r2.
   * 11-18-1937-00-00ba-cr-for-wur-duty-cycle-part-I (Po-Kai Huang, Intel)
     + CID 308: discussed who (STA or AP) is in a better position to decide the Duty Cycle period. Need more offline discussions. Deferred.
     + CID 792: add more reasons for the rejection.
     + CID 68: no comments.
     + CID 72: no comments.
     + CID 73: Changed the resolution to Revised, because the commenter’s proposal wasn’t specific. The current text change is to change the word “granularity” to “unit”.
     + CID 365: no comments.
     + CID 699: in the text, added a note to Editor to instruct the editor to do a global change for the terminology.
     + CID 703: no comments.
     + CID 877: no comments.
     + CID 985: no comments.
     + CID 994: no comments.
     + CID 1000: no comments.
     + CID 1092: switched the first two bits in WUR Parameter Control field (in Figure 9-751b) to make their orders consistent with the orders of the corresponding fields in the WUR Parameters field.
     + CID 1229: related to CID 308. Need more offline discussion. Deferred.
     + CID 535: no comments.
     + CID 115: discussed about the text changes. Made some editorial changes.
     + CID 169: no comments.
     + CID 1156: no comments.
     + CID 529: Discussed with CID 110 together regarding how to modify the figure. Decided to keep the proposed resolution for CID 529. However, CID 110 needs to be reconsidered and deferred for the time being.
     + CIDs 530-532: no comments.
     + CID 856: added text to say that the On Duration shall be smaller than or equal to the Duty Cycle Period.
     + CID 857: same as CID 856.
     + CID 534: no comments.
     + CID 44: no comments.
     + CID 533: no comments.
     + CID 724: no comments.
     + CID 112: no comments.
     + CID 405: no comments.
     + CID 1131: no comments.
     + CID 113: no comments.
     + CID 110: deferred as previously discussed.
     + CID 406: no comments.
     + CID 111: discussed the need to describe the Ack frame to various WUR Action frames. Decided to move CID 111 to a different document on the WUR Mode Setup.
     + CID 114: no comments.
     + CID 116: no comments.
     + CID 342: same as CID 116. No comments.
     + CID 343: same as CID 116. No comments.
     + CID 429: corrected a typo in the word “handle”.
     + CID 603: same as CID 116. Changed “FDMA” to “31.9 WUR FDMA operations”. Will make the same change for all CIDs related to moving these three paragraphs to clause 31.9.
     + CID 725: same as CID 116. No comments.
     + CID 887: same as CID 116. No comments.
     + CID 1241: same as CID 116. No comments.
     + CID 1001: no comments.
     + CID 1002: no comments.
     + CID 1130: no comments.
     + All CIDs, except CIDs 308, 1229, 110, and 111, are ready for motion.
     + Will be updated to r1.
3. Adjourned at 19:02 EST.

**Teleconference on Monday, January 7, 2019, 11:00 pm – 1:00 am (ET)**

**Agenda:**

1. Call meeting to order

2. Agenda setting

3. Patent policy (link at the end of the email)

4. Attendance: send email to the chair or secretary (leif.r.wilhelmsson@[ericsson.com](http://ericsson.com/))

5. Presentation

* 11-18-2143r0 Comment Resolutions on WUR Mode element - Part 4, Suhwook Kim (LG)
* 18/2148: comment resolution on group ID (part iii), Lei Huang (Panasonic)
* 11-18-2164r0 Comment Resolution on WUR Discovery, Taewon Song (LG Electronics)
* 18/2136: CR for WUR Discovery - cid 607, Rojan Chitrakar (Panasonic)
* 11-18-1976 CR-BPSK-Mark, Vinod Kristem (Intel)
* 11-18-1965 CR-WUR-Receive-procedure,  Vinod Kristem (Intel)
* 11-18-1966 CR-WUR-Transmit-procedure,  Vinod Kristem (Intel)

6. Adjourn

1. **Chair Minyoung Park (Intel) calls the meeting to order at 11:00 pm (ET).**
2. Minyoung goes through the proposed agenda and asks it there are any questions. No questions asked so the proposed agenda will be used.
3. Minyoung direct people to the links provided in the call in case of questions to the IEEE 802 and 802.11 Policy and Procedure.
4. Minyoung reminds about recoding attendance.
5. Presentations

**11-18-2143r0 is deferred.**

**11-18-2164r0 “Comment Resolution on WUR Discovery”, Taewon Song (LGE):**Taewon goes through CID 1003,1004, and 1005. All CIDs are rejected. Minyoung points out that the rejection could also have been based on formal grounds as the comments do not provide a resolution to the identified issue.

There are no questions on the presentation and the CIDs in 11-18/2164r0 are ready for motion.

**11-18/2148r1 “11ba D1.0 Comment Resolution for Group ID: Part III”, Lei Huang (Panasonic):** Lei goes through CIDs 642, 852, 1068, and 702.

* CID 642: reject
* CID 852:revise

**Question/Comment (Q):** Is there any limitation on the bitmap?

**Answer (A):** It depends on the capability and can be up to 64 bits.

* CID 1068: reject

**Q:** I actually think the comment is correct.

After a brief discussion is was decided that more work is needed regarding CID 1068 and therefore this CID will be removed and addressed separately.

* CID 702: revise

Minyoung reminds about updating the document to reflect that CID 1068 is removed and to upload r2 on the server. The other three CIDs are ready for motion.

**11-18/2136r0 “Comment Resolution on WUR Discovery”, Rojan Chitrakar (Panasonic):**

CID 607: revise

No questions, so CID 607 is ready for motion.

**11-18/1965r5 “Comment resolution on WUR receive procedure (32.2.14)”, Vinod Kristem (Intel):** The document covers CIDs22, 25, 40, 41, 42, 43, 208, 231, 502, 1221, 1253, 207, 209, 824, 23, 823.

1965r4, which was presented in the November f2f meeting, covered CIDs 22, 25, 40, 41, 42, 43, 208, 231, 502, 1221, 1253. Therefore, focus is on the added CIDs

* CID 207: revise
* CID 209: revise (the resolution of CID 207 cover also CID 209)
* CID 824: revise
* CID 23: revise
* CID 823: revise

It is noted that CID is not mentioned on the first page, and the document will therefore be updated to r6 adding CID 823.

No other questions asked and the CIDs in 11-18/1965r6 will be ready for motion.

**11-18/1966r4 “Comment resolution on WUR transmit procedure (32.2.13)”, Vinod Kristem (Intel):** The document coversCIDs: 206, 229, 230, 501, 752, 969, 970, 971, 1216, 1217, 1218, 1219, 972, 973

1966r3, which was presented in the November f2f meeting, covered CIDs. Therefore, focus is on the added CIDs

* CID 972: reject
* CID 973: reject

**Q:** I have question related to Fig. 32-12. Should we make a distinction whether the TX vector contain legacy or WUR signal?

Minyoung proposes that this is discussed separately as it does not relate to the CIDs in this document.

The CIDs in 11-18/1966r4 are ready for motion.

**11-18/1976r0 is deferred.**

1. **Meeting is adjourned at 10.15 am (ET).**

**List of Attendees:**

|  |  |  |
| --- | --- | --- |
|  | Name | Affiliation |
| 1 | Minyoung Park | Intel |
| 2 | Leif Wilhelmsson | Ericsson |
| 3 | Yunsong Yang | Huawei |
| 4 | Xiaofei Wang | InterDigital |
| 5 | Taewon Song | LGE |
| 6 | Al Petrick | ? |
| 7 | Alphan Sahin | InterDigital |
| 8 | Suhwook Kim | LGE |
| 9 | Junghoon Suh | Huawei |
| 10 | Po-Kai Huang | Intel |
| 11 | Lei Huang | Panasonic |
| 12 | Jeongki Kim | LGE |
| 13 | Gaurav Patwardhan | HPE |
| 14 | Rojan Chitrakar | Panasonic |
| 15 | Tomoko Adachi | Toshiba |