IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Minutes REVmd - March 2018- Rosemont | | | | |
| Date: 2018-04-19 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Jon Rosdahl | Qualcomm Technologies, Inc. | 10871 N 5750 W  Highland, UT 84003 | +1-801-492-4023 | jrosdahl@ieee.org |
| Michael Montemurro | Blackberry | 4701 Tahoe Blvd, Mississauga, ON. CANADA. L4W 0B4 | +1-289-261-4183 | mmontemurro@blackberry.com |
| Mark Hamilton | Ruckus/ARRIS | 350 W. Java Dr.  Sunnyvale, CA 94089 | +1-303-818-8472 | [mark.hamilton2152@gmail.com](mailto:mark.hamilton2152@gmail.com) |

Abstract

Minutes for the 802.11md Task Group meetings 2018 March 5-8 durning the IEEE 802 Plenary at the Hyatt Regency O’Hare in Rosemont, Ilinois.

R1. Minor corrections were made.

1. **Monday PM1: TGmd meeting in Rosemont, IL 13:30-15:30 ET – 2018-03-05**
   1. **Called to order** at 1:32pm by the chair, Dorothy STANLEY (HPE)
   2. **Thanks to Mark HAMILTON for helping with today’s minutes**
   3. **Review Patent Policy** and Participation information
      1. No items noted
   4. **Review agenda: 11-18/0289r1**
      1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-01-000m-march-2018-tgmd-agenda.pptx>

* **Monday PM1**
* Chair’s Welcome, Policy & patent reminder
* Approve agenda
* Status, Review of Objectives
* 11-18-354 – QoS Mapping – Andrew MYLES
* 11-18-480 – Peerkey deletion – Menzo WENTINK
* Editor Report 11-17-920r7
* **Tuesday PM1**
* 11-18-334 Annex I DMG OFDM removal – Lei Huang
* 11-17-1192 – Matthew Fischer
* **Wednesday PM1**
* HT Delayed Block ACK removal - Menzo Wentink
* 11-17-1807 – Operating Channel Validation Nehru Bhandaru
* Plans for March 2018 – May 2018
* Adjourn
  + 1. Chair is aware of 4 presentations on new material, as listed on slide 3 of the agenda deck.
    2. Also, still more work on HT Delayed Block ACK removal? No submission this time; believe we decided not to do so. Removed that item.
    3. 11-17/1192: Matthew is not here. Not sure if we’ll keep it on the agenda. Chair will confirm.
    4. No other changes.
    5. Given that workload, we probably don’t need 4 slots. 2 slots look like enough. Chair proposes cancelling Wednesday PM1 and Thursday PM1. Since one of the Tuesday discussions is on security (and in particular, related to KRACK), and JTC1 is also discussing a KRACK-related issue in the same slot. Agreed to move that topic to Wed PM1 (and not cancel that meeting).
    6. We’ll cancel Thursday PM1, now.
    7. No objections to the discussed modifications.
    8. Motion to approve Modified Agenda
       1. Moved: Graham Smith; Seconded: Marc Emmelmann. No objection.
    9. Approved Agenda by acclamation.
  1. Reminder of the REVmd D1.0 WG LB. It closes March 17th, 2018
     1. Reviewed status. No questions or comments.
  2. **Review Submission: 11-18/354 -** **QoS mapping – Andrew Myles**
     1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0354-00-000m-qos-mapping-comment.pptx>
     2. Review submission
     3. The concept here is that the suggested mapping of DSCP to a UP (in Annex R, especially Table R-2), currently in 802.11, does not match other standards (for example IETF RFC 8325) or practice.
     4. This concern is expected to be made as a comment on the ongoing Letter Ballot. The presentation today is to prepare the TG for that comment’s resolution.
     5. Not all vendors use the IETF RFC recommendations, however.
     6. Proposal is to align both the naming (which is technically trivial, but adds clarity) and priority order (which has technical importance).
     7. Q: Slide 10 suggestion no longer uses UP2 at all. A: Yes, that reflects the current RFC usages. This might need some off-line investigation to double-check.
     8. C: There is no mention of “Gaming” as an application. A: Need to investigate if that falls under “Real-Time Interactive”. C: Could perhaps add parenthetical “Gaming” to that line. A: Sure, but this table is trying to reflect what’s in the RFCs. Let’s investigate further, off-line.
     9. C: Need to take into account 802.1Q’s mapping and related discussion. A: OK, believe this is consistent with that. C: Also need to take into account 802.1AC. A: OK, will look at that. C: Also need to consider the work that 802.11ak has done – this may duplicate that, but needs to be reviewed. A: Agreed, will look at that. C: Also note that there is a potential backward compatibility issue to consider. A: Yes, but note that this table is only an informative example.
     10. C: Have a concern about changing anything here (like adding Gaming), because we should match the other existing uses. A: Another option is to agree this is duplicating other places, and we could just remove this. It is probably out of our scope, as upper layers do this mapping (to User Priority).
     11. C: The UP <-> AC mapping is within our scope, and we should define it. C: There is some normative text about that mapping, but it is mostly defaults/recommendations and can be changed.
  3. **Review Submission: 11-18/480 – Menzo WENTINK**
     1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0480-01-000m-peerkey-deletion-cleanup.docx>
     2. PeerKey deletion –
     3. Some changes complete what was proposed before, but were missed in previous proposal.
     4. This represents some issues found with how we are deleting Peer Key behaviors during the last ballot.
     5. Reviewed the detailed proposed changes.
     6. C: Some of these errors seemed to happen with 11z was integrated. Agree with this clean-up.
     7. Q: Did this take into account our previous discussion that AP Peer Key used (some of) these concepts? A: Yes, this is explicitly separating the AP Peer Key process, to no longer have any reference to SMK and related names, so all that confusion can be straightened out.
     8. C (Editor): The Editor was asked to search for uses of SMK, as part of the previous resolution on this topic. Will compare the list from that process, with this list, off-line.
     9. C: We don’t delete MIB variables, we “Deprecate” them, instead.
     10. C: We probably have deleted some variables already, in the last ballot round. Need to go back and double-check, and instead put those back in, but deprecated.
  4. **Editor’s report**
     1. No formal Editor’s report documents this week.
     2. Thanks to everyone for their contributions to get D1.0 completed.
  5. **Recess at 15:30 until Tuesday PM1**.

1. **Tuesday PM1: TGmd meeting in Rosemont, IL 13:30-15:30 ET – 2018-03-06**
   1. **Called to order** at 1:32pm by the chair, Dorothy STANLEY (HPE)
   2. **Review Patent Policy**
      1. No Items noted
   3. **Review Agenda 11-18/298r2**
      1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-02-000m-march-2018-tgmd-agenda.pptx>
      2. **No Changes from approved Agenda**
   4. **Motion #1: Approve prior TGmd minutes**
      1. Approve the minutes of

* TGmd January 2018 meeting, Irvine in <https://mentor.ieee.org/802.11/dcn/18/11-18-0003-00-000m-minutes-revmd-jan-2018-irvine.docx>
* TGmd November 2017 meeting, Orlando in <https://mentor.ieee.org/802.11/dcn/17/11-17-1537-00-000m-minutes-revmd-nov-2017-orlando.docx> ,
* Sept-Oct-Nov-Dec-Jan teleconference minutes in <https://mentor.ieee.org/802.11/dcn/17/11-17-1545-03-000m-minutes-revmd-sep-oct-and-nov-telecons.docx> , and <https://mentor.ieee.org/802.11/dcn/17/11-17-1536-02-000m-minutes-for-2017-december-and-2018-january-telecons.docx>
* 2017 Dec ad-hoc minutes in <https://mentor.ieee.org/802.11/dcn/17/11-17-1856-00-000m-minutes-of-revmd-adhoc-in-piscataway-nj.docx>
  + 1. Moved: Jon ROSDAHL
    2. Seconded: Emily QI
    3. **Results of Motion R1:** 10-0-0 Motion Passes
  1. **11-18-334r1 Annex I DMG OFDM removal – Lei Huang**
     1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0334-01-000m-annex-i-dmg-ofdm-removal.docx>
     2. **Abstract:** This document is based on IEEE 802.11-12/0751r0 and the decision that DMG OFDM PHY is removed. It contains an embedded ZIP file that contains text file representations of example data for each node described in subclause I.4 of Annex I in the IEEE 802.11 amendment. It also proposes some text modifications on IEEE P802.11-REVmd™/D1.0 related to DMG OFDM PHY removal
     3. Review submission
     4. Review the embedded examples.
     5. Review proposed changes
     6. Question on how to get the changes correctly communicated.
     7. The document should be clean without the embedded file.
     8. Having the clean text formatted like 11-12/0751
     9. A new 802.11 document will be prepared with clean document with the changes clearly presented.
     10. A motion to incorporate the changes should be to incorporate the changes n 334r2 as it should point to the new clean example document**.**
  2. **We will reconvene on Wednesday PM1**
  3. **Recess 2:00pm**

1. **Wednesday PM1: TGmd meeting in Rosemont, IL 13:30-15:30 ET – 2018-03-07**
   1. **Called to order** at 1:30pm by the chair, Dorothy STANLEY (HPE)
   2. Thanks Michael Montemurro for helping with the Minutes.
   3. **Review Patent Policy**
      1. No Items noted
   4. Review agenda 11-17/289r3.
      1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-03-000m-march-2018-tgmd-agenda.pptx>
      2. No proposed changes.
   5. **Presentation of document 11-17-1807r7** by Thomas DERHAM (Broadcom)
      1. <https://mentor.ieee.org/802.11/dcn/17/11-17-1807-07-000m-defense-against-multi-channel-mitm-attacks-via-operating-channel-validation.docx>
      2. Proposal to protect against multi-channel MITM attacks.
      3. The purpose of including the OCI element is to prevent a MITM attack where a device impersonates an AP to an associating STA on one channel, while impersonating a STA to an AP processing the association on another channel. See document 11-17/1606r3
      4. A dual-concurrent STA operates as two logical AP’s with different MAC addresses, so this proposed mitigation would still address that type of device.
      5. This mitigation technique address potential future vulnerabilities that could be found with RSNA procedures.
      6. In lieu of KRACK, there are other implementation-specific problems that this proposal addresses.
      7. The response to a WNM-Sleep update could compromise the deferred GTK update. An attack could compromise the GTK.
      8. There is a scenario where a channel switch could occur during an association of 4-way handshake.
      9. The attacker could block a protected PMF frame and send it later.
      10. This solution generates a SA-Query request from every associated STA after every channel switch. It introduces a lot of overhead for an AP.
      11. This should only be applied to an unprotected channel switch announcement.
      12. There would be some randomness in when a STA initiates an SA-Query after a Channel Switch.
      13. The SA Query procedures should be conditional on whether the Channel Switch Announcement was protected or not.
      14. The inclusion of OCI needs to be negotiated when the keys are established.
      15. “leave the BSS” should be “deauthenticate”.
      16. The text should explicitly say delete the PTKSA. No conclusion was made on this issue.
      17. The MME should be the last element in the table. It looks as though the baseline does not look right.
      18. The OCI will be present in all self-protected action frames. The only self-protected action frames are Mesh.
      19. The OCI should not be added to the general table, but should really be added to individual self-protected frames.
      20. The relative order is not concerning because the last elements are mutually exclusive.
      21. The Action Type sub-field allows the OCI fields to be conditionally present.
      22. The WNM Sleep mode “enter” mode does not require OCI validation.
      23. Clause 11.3.4.4 covers PTKSA deletion on transmission of deauthentication.
      24. The author will post an updated version of the document to be considered in May.
   6. **Request to Modify Agenda –** 
      1. add Update on Doc 11-18/480 on the agenda
      2. No objection, but put after the current planned agenda.
   7. **Review Plans for March-April**
      1. Review calendar looking for Telecon opportunities
      2. Adhoc in Ft. Lauderdale April 10-12
      3. Proposal for Telecons:
         1. April 6 and April 27
      4. Interim in May 7-10 in Warsaw Poland.
      5. Plan for alternate Adhoc discussion
         1. Possible Target would be August, but we can schedule that in May.
         2. No consensus for a June 2018 AdHoc, so no June ad-hoc will be held.
   8. **Review update on doc 11-18/480r1** – Menzo WENTINK
      1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0480-01-000m-peerkey-deletion-cleanup.docx>
      2. PeerKey delete clean-up document
      3. The MIB variable deletion process needed to be reviewed.
      4. The variables that were deleted, but needed to be put back in and the process for creating the new MIB entry was created.
      5. Review the proper process for getting the changes to the MIB corrected.
      6. The editor confirmed she can follow the documented instructions.
   9. Adjourn at 15:30.

**References:**

Monday – 3-5:

1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-01-000m-march-2018-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/18/11-18-0354-00-000m-qos-mapping-comment.pptx>
3. <https://mentor.ieee.org/802.11/dcn/18/11-18-0480-01-000m-peerkey-deletion-cleanup.docx>

Tuesday – 3-6

1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-02-000m-march-2018-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/18/11-18-0003-00-000m-minutes-revmd-jan-2018-irvine.docx> <https://mentor.ieee.org/802.11/dcn/17/11-17-1537-00-000m-minutes-revmd-nov-2017-orlando.docx> <https://mentor.ieee.org/802.11/dcn/17/11-17-1545-03-000m-minutes-revmd-sep-oct-and-nov-telecons.docx>
3. <https://mentor.ieee.org/802.11/dcn/17/11-17-1536-02-000m-minutes-for-2017-december-and-2018-january-telecons.docx>
4. <https://mentor.ieee.org/802.11/dcn/17/11-17-1856-00-000m-minutes-of-revmd-adhoc-in-piscataway-nj.docx>
5. <https://mentor.ieee.org/802.11/dcn/18/11-18-0334-01-000m-annex-i-dmg-ofdm-removal.docx>

Wednesday – 3-7

1. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-03-000m-march-2018-tgmd-agenda.pptx>
2. <https://mentor.ieee.org/802.11/dcn/17/11-17-1807-07-000m-defense-against-multi-channel-mitm-attacks-via-operating-channel-validation.docx>
3. <https://mentor.ieee.org/802.11/dcn/18/11-18-0480-01-000m-peerkey-deletion-cleanup.docx>
4. <https://mentor.ieee.org/802.11/dcn/18/11-18-0289-04-000m-march-2018-tgmd-agenda.pptx>