IEEE P802.11  
Wireless LANs

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| TGaq Minutes – September 2017 Session | | | | |
| Date: 2017-09-12 | | | | |
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Abstract

Minutes for TGaq during the IEEE 802.11 September 2017 Interim meeting in Waikoloa, HI, U.S.A., including 4 sessions: Tue AM2, Wed AM1, Thur AM1, and Thur PM2.

Meeting: TGaq

Place: Waikoloa, HI

Officers:

* Chair: Stephen MCCANN (BlackBerry)
* Vice-Chair: Yunsong YANG (Huawei)
* Technical Editor: Lee ARMSTRONG (US DoT)

**Tuesday September 12th, 2017**

# TGaq 10:30-12:30 (AM2) local time

1. Called to order at 10:32 local time by Stephen McCann.
2. Attendance: 11.
3. Approval of agenda (11-17-1208r1 on the server and shown on the screen)

* The agenda (r1) is approved unanimously.

1. Review patent policy and guidelines
   * No items identified.
2. Editor’s report:
   * Ready to produce D12.0 with the comment resolution of SB4.
3. Secretary Position

* Establish secretary for the week
  + Yunsong Yang (Huawei) volunteers to take the minutes for the week.

1. Meeting minutes approval
   * TGaq July 2017 F2F meeting minutes (<https://mentor.ieee.org/802.11/dcn/17/11-17-1142-00-00aq-tgaq-meeting-minutes-july-2017-session.doc> )
     + No comment or question

Motion: move to approve TGaq July 2017 F2F meeting minutes as in doc. 11-17-1142r0.

Moved: Mike Montemurro

Second: Yunsong Yang

Result: motion passes unanimously.

* + TGaq August to September 2017 teleconference minutes (<https://mentor.ieee.org/802.11/dcn/17/11-17-1227-03-00aq-tgaq-august-to-september-2017-teleconference-minutes.doc> )
    - Document number is changed to 11-17-1227r3. This change is captured in the agenda (r2) without objections.
    - No comment or question on the minutes.

Motion: move to approve TGaq August to September 2017 teleconference minutes as in doc. 11-17-1227r3.

Moved: Jon Rosdahl

Second: Lee Armstrong

Result: motion passes unanimously.

1. Comment resolution
   * Analysis of 4th re-circulation sponsor ballot
     + CID 10001: Accepted. (However, no action is needed.) Marked as ready for motion.
     + All Type “E” CIDs (10002, 10003, 10004, 10007, and 10010) are assigned to Lee and Editor’s Ad-hoc without objections.
     + CID 10011 assigned to Mike Montemurro.
     + CID 10008
       - Read the comment.
       - Stephen: There will be a teleconference with RAC on Thursday 10:00 am HT.
       - Roger Marks (EthAirNet Associates): An overview of 802c (doc. 11-17-1146r0) will be presented to the WG on Wednesday plenary session.
       - The proposed change is to use the AAI quadrant and the 44 bits to randomize MAC address for the MAC privacy enhancement.
       - However, it is argued that even using 44 bits within the AAI space, there is no guarantee that the random MAC address doesn’t conflict with a locally assigned address within the AAI.
       - It is pointed out that the primary concern of RAC is that the random MAC address generated using 46 bits may conflict with the SAI, ELI, or the reserved address space defined in 802c. It is desirable that 11aq stays clear of these three quadrants at least.
       - The counter-arguments are that 11aq is for pre-association, where the devices don’t inject frames into the network because the GAS frames are terminated at the APs; SLAP is optional; and when a device is unassociated, there is no administration to that device (or at least that is the current behavior in 802.11).
       - It is recognized that some text regarding post-association in D11.0 may be problematic and may need a fix.
       - There is a suggestion of using 46 bits when unassociated, and when the device is to become associated, using a MIB variable to configure the device when to use 46 bits to randomize and when to follow the local rules.
     + CID 10009
       - Read the comment. RAC may sell CIDs within the ELI space. And a buyer may have the expectation that the CID bought will not be violated.
       - However, it is argued that PAD is used by unassociated STAs who don’t inject frames into the local network, as the GAS frames are terminated at the APs.
       - No conclusion.
     + CID 10012
       - Read the comment.
       - There is a comment that using smaller space for MAC randomization actually increases the collision probability.
       - Questioned whether it is worthwhile to require 2 more bits in order to improve the collision probability while taking the risk of violating other assignment schemes.
       - Stopped at CID 10012 without conclusion.
2. Recessed at 12:29 local time.

**Wednesday September 13th, 2017**

# TGaq 8:00-10:00 (AM1) local time

1. Called to order at 8:00 local time by Stephen McCann.
2. Attendance: 11.
3. Review patent policy and guidelines
   * No items identified.
4. Approval of agenda (11-17-1208r2 is on the server and r3 is shown on the screen)

* Add EC report discussion
* Add 11-17-1488r0, 11-17-1489r0, and 11-17-1459r0 under comment resolution
* The updated agenda (r3) is approved unanimously.

1. Comment Resolution
   * Analysis of re-circulation Sponsor Ballot
   * Presentation of 11-17-1488r0
     + Mike Montemurro (BlackBerry) presents the document.
     + To resolve CIDs 10006, 10008, 10009, 10012, 10014, 10015, and 10016.
     + Question: In the added paragraph, when the new MIB is true, does that mean the MAC address randomization will not be performed?
       - Answer: yes or no, it is according to the local configuration. One of the local figuration can be using 44 bits to randomize.
     + Question: Why the MIB variable cannot be broadcasted in the Beacon?
       - Answer: It needs to be configured in the STA. Sometimes, receiving this information in the air doesn’t mean that the STA will be configured this way. The STA will be configured for the network that it is enrolling in before the STA can establish a connection with the network. It is done this way in all enterprise networks and Wi-Fi Alliance Passpoint today.
     + It is clarified that the added paragraph is for the STA to obtain an address for establishing a connection.
     + Question: Can a STA have multiple such MIB values configured with each for a different BSS?
       - Answer: Yes.
     + There is a suggestion to change the order within the first sentence so that the non-AP STA selects the BSS first before checking on the MIB condition.

SP: do you prefer to have the MIB condition appears first in the sentence?

Result: Y/N/A = 8/2/0.

* + - A member who votes no explains that if the MIB condition appears first, the problem is improper order of processing: A STA needs to select an AP before the STA knows of which BSS the MIB value should be checked on.
    - Dan Harkins (HPE and co-author) presents a strawman text on the screen that combines both (true and false) paragraphs into one.
    - The group is OK with this approach. And editorial changes are made on the strawman text.
    - The revised document will be uploaded as r1.
  + Presentation of 11-17-1489r0
    - Mike Montemurro (BlackBerry) presents the document.
    - CID 10006: fixed typos, updated the reference document number, and in the disposition field, add “It should be noted that frame exchanges between an unassociated STA and an AP take the form of a request/response transaction and are not forwarded to any other devices on the network.”
    - CID 10008:
      * Comment: concerned that there may be address conflict in the air with a CID address.
      * Response: when a STA is unassociated, it is not administrated, unless the 802.11 std is changed in this aspect.
      * Comment: the intent is to change 802.11. 46 bits for unassociated STA is not good for 802.11. We give too much address space to these STAs that will prevent other local address assignment schemes later. An example of CGA is given.
      * Comment: The example listed is for associated state, which we have dealt with.
      * Comment: there is a concern when the conflict is with a different AP.
      * Comment: In that case, the TA (Address 2 field in the MAC header) will be different and the Dialog Token (in the GAS frame) will be different.
      * Resolution: keep as “Revised”. In the disposition field, add “The behavior has been changed to allow a STA to conform with locally administrated address space when it associated to a network.” and “It should be noted that frame exchanges between an unassociated STA and an AP take the form of a request/response transaction and are not forwarded to any other devices on the network.”
    - CID 10009: updated the reference document number. Change “are required” to “may be required”.
    - CID 10012: fixed the reference document number and typo, and in the disposition field, add “It should be noted that frame exchanges between an unassociated STA and an AP take the form of a request/response transaction and are not forwarded to any other devices on the network.”
    - CID 10013: Accepted.
    - CID 10014: copy resolution from CID 10006.
      * Comment: need to add explanation why the conflict of address doesn’t have implication.
    - CID 10015:
      * Reviewed the comment and proposed change.
      * The rational of using “the non-AP STA” previously for the subsequent occurrences was explained.
      * It is pointed out that in document 11-17-1488r1, we just changed “the non-AP STA” to “a non-AP STA” and need to reverse it back to “the non-AP STA”.
      * Stopped at CID 10015 without a conclusion due to out of time.
    - The document will be updated to r1.

1. Recessed at 10:00 local time.

**Thursday September 14th, 2017**

# TGaq 8:00-10:00 (AM1) local time

1. Called to order at 8:02 local time by Stephen McCann.
2. Attendance: 13.
3. Review patent policy and guidelines
   * No items identified.
4. Approval of agenda (11-17/1208r3 is on the server and shown on the screen)

* The agenda (r3) is approved unanimously.

1. Re-circulation Sponsor Ballot Comment Resolution
   * Presentation of 11-17-1488r2
     + Mike Montemurro presents the changes from r1 to r2.
       - To address CID 10015 as discussed yesterday, change the indefinite article “a” before “non-AP STA” to “the” (in the second paragraph under 12.2.10) and made additional modifications to ensure that the sentence reads well.
     + Roger Marks (commenter of CID 10015) suggests that reiterating “with dot11MACPrivacyActivated set to true” in every “a non-AP STA” is better.
     + There is a suggestion to change “the non-AP STA” in both the first and the second paragraphs to “such a non-AP STA”. The group likes the suggestion. The Chair makes the suggested change on-line.
     + Mike also suggests using his proposed resolution text to CID 10015 as in doc. 11-17-1489r2 to further fix the text in 11-17-1488r2. But there is no conclusion on that.
     + There is a suggestion to combine the Locally..Config MIB with the MACPrivacyActivated MIB but having numerated values defined more specific to different rules and scenarios.
     + But other members think that we should keep the two MIBs separated. However, the Locally..Config MIB can be numerated.
     + Mike explained that the reason for this new MIB being true/false is that there are many ways to define the local rules. This is a cleaner way.
     + Dan Harkins (co-author): The local administer will come up with the local rules and schemes. We don’t need to do that.
     + There is a comment that the default value should not be “to ignore 802c”.
     + Roger: 5C requires the statement whether the amendment complies with other 802 standards, and if not, state the reason. Therefore, the default value should be to comply with 802c. The protocols defined within 802c to provide address assignment are currently still being worked on (e.g. IEEE 802.1cq). No standards or protocols exist today to perform address assignment.
     + There is a comment that in the first paragraph, 11aq should use the AAI space even during pre-association. However, other members express the view that 11aq is for pre-association, the privacy issue also occurs mostly during pre-association, but the local administration occurs after association. Therefore, the scopes (of 11aq and SLAP) are orthogonal.
     + There is a concern that IEEE 802 may define a protocol in the future using the 802c SAI space, which 11aq (if using 46-bit randomization) might violate. We need to allow 802 to use the SAI space in the future.
     + There is a suggestion removing the second paragraph (under 12.2.10), as post-association is out of the scope of 11aq.
     + The Chair suggests that we have three choices moving forward: delete the second paragraph, numerate the new MIB, or motion as is.
     + There is a comment that the default of that MIB should protect the SAI space.
     + A member asks the Chair to give implications of these three choices.
     + Stephen: we can be done by the end of October, or if another round of SB is needed, then we can get it done in November, there is a December REVCom.
     + The document is updated as r3 and uploaded to mentor in preparation for a strawpoll.

SP: How should document 11-17-1488r3 be progressed?

* Remove all references to post-association MAC addressing: 4
* Change the dot11LocallyAdministeredMACConfig MIB variable to become an enumerated type: 4
* Don’t progress the document anymore and resolve the comments: 0
* Abstain: 1

*[13 people including the Chair present in the room. The Chair didn’t vote.]*

The TGaq motion deck document is updated to r35 with this result.

* Stephen: Clearly option 3 is out. We need to consider options 1 and 2.
* The group agrees to make further changes to 11-17-1488r3 to incorporate the proposed resolution to CID 10015 as in document 11-14-1489r2. And references to post-association are deleted. Document 11-17-1488r3 will be updated to r4.

1. Recessed at 10:00 local time.

**Thursday September 14th, 2017**

# TGaq 16:00-18:00 (PM2) local time

1. Called to order at 16:01 local time by Stephen McCann.
2. Attendance: 14.
3. Review patent policy and guidelines
   * No items identified.
4. Approval of agenda (11-17/1208r3 is on the server and r4 is shown on the screen)

* Added GAS, Editorial, and MAC sub-items under item 5.
* The updated agenda (r4) is approved unanimously.

1. Re-circulation Sponsor Ballot Comment Resolution
   * GAS
     + CID 10011: Read the comment. The submission is doc. 11-17-1418r0.
     + Presentation of 11-17-1418r0
       - Mike Montemurro (BlackBerry) presents the document.
       - Comment: The reordering of sequences is OK. But capitalized terms are usually used for the names of fields and frames. When referring to the request and response transferred between the AP and the server, we should use non-capitalized terms. Besides, if we make these changes in 11aq draft, it will create inconsistency with the other places in the baseline document as 11aq draft doesn’t cover all the places related to GAS protocol procedures.
       - The Chair asks the Editor to review the capitalization in the baseline document.
       - Comment on that “Group addressed GAS Request frame” should be “Group Addressed GAS Request frame”. The change is agreed.
       - Clarified how the Maximal Channel Time is related to the PostReplyTimer (the later is set to the former).
       - There is a discussion why there is a difference between sub-bullets 3) and 4). For Group Addressed GAS Request frame, if the server doesn’t have the response, the server may drop the request. Then the timer (at the AP) will expire. It is desirable that the AP doesn’t send a GAS frame back in this case.
       - Question: How to deal with the case where the Advertisement Server may have the service but the server is too slow? The STA still wishes to receive a deterministic response from the AP first.
       - Response: when using Group Addressed GAS Request frame, the response is not deterministic. If a deterministic response is desired, the STA should use a unicast GAS request.
       - The group reviewed the asynchronous GAS (i.e., when dot11GASPauseForServerResponse is false) vs. synchronous GAS (i.e. when dot11GASPauseForServerResponse is true) as in the baseline document.
       - SK Yong (Apple) will study more on how to address the case he raised.
       - Mike suggests that the document can be used for resolving CID 10011.
       - The Chair asks the Editor to treat the capitalization changes in the document as within his editorial license after the Editor studies the capitalization in the baseline document.
       - Since there has been a small change to r0, the document is updated to r1 and uploaded to mentor.
       - Resolution to CID 10011: Revised. Incorporate the changes as shown in document 11-17-1418r1. Set the CID to ready for motion without objections.
     + CID 10005: Revised. Instruct the editor to add dot11GASResponseTimeout in C.3 and modify the range to (10..65535), change the default value to 50, and in P56L2, change "and rounded to the nearest integer." to ", rounded to the nearest integer, and limited to a value of 255.", and in P42L7, change "20 TUs" to "10 TUs".
       - Set the CID to ready for motion without objections.
   * Editorial
     + CID 10003: the group agrees that the resolution should be a “Revised” and to break the sentence into two to describe the two steps. Lee will propose the resolution under Editor’s Ad-hoc group.
   * MAC comments
     + Presentation of 11-17-1488r5
     + Dan Harkins (HPE) presents the changes in the document.
     + There is a concern about value 4 (for the Reserved SLAP identifier) of the new MIB variable.
     + Question: what if the network configure has changed when the non-AP STA is trying to reuse a prior state?
       - Response: then the state is invalid and the network will reject such a STA. So, just the first frame that the STA sends might use a conflicting address. After that there shouldn’t be any conflict.
     + Questioned on what “proprietary” means.
       - Changed to “vendor-specific”.
     + Discussed on the meaning of the values 1, 2, and 3.
       - Decided to combine the values 1-4 into one for complying with the SLAP, leaving value of 0 for not complying with the SLAP, value 2 for vendor-specific.
     + The document is updated and uploaded as r6.
     + Mike Montemurro (BlackBerry) suggests that we can use 11-17-1488r6 to update the resolutions in document 11-17-1489r3.
     + Presentation of 11-17-1489r3
       - While Mike presents the changes in this document, the group checked the resolution to each CID and updated the reference document numbers to 11-17-1488r6.
       - CID 10009: in order to address the scope issue, modify the disposition field to mention the removal of behaviors related to post-association.
       - The document is updated as r4 and uploaded to mentor.

Motion #105: Move to approve comment resolutions contained in document 11-17-1489r4, and instruct the editor to incorporate the changes into the next update of the TGaq Draft.

Moved: Mike Montemurro

Second: Dan Harkins

Result: Y/N/A = 6/0/1. Motion passes.

* + While the Vice Chair is working on updating the comment spreadsheet (doc. 11-17-1420r1) in preparation for motion to approve the Editorial comments and the remaining technical comments, the Chair asks the group if there are any objections to extend the meeting by 15 minutes so that we can conclude this round of re-circulation SB. There are no objections.
  + Doc. 11-17-1420r1 is uploaded to mentor.

Motion #106: Move to approve comment resolutions contained in the tabs “Editorial” and “2017-09-14-PM2-ready-for-motion” of document 11-17-1420r1, and instruct the editor to incorporate the changes into the next update of the TGaq Draft.

Moved: Mike Montemurro,

Second: Lee Armstrong

Result: Y/N/A = 6/0/1. Motion passes.

Motion #107:

* Having approved all the comment resolutions for the comments received in the 4th Sponsor Re-circulation Ballot on P802.11aq D11.0 contained in:
* [https://mentor.ieee.org/802.11/dcn/17/11-17-1420-01-00aq-comments-from-4th-recirculation-sb-on-tgaq-d11-0.xlsx](https://mentor.ieee.org/802.11/dcn/17/11-17-1205-05-00aq-comments-from-3rd-recirculation-sb-on-tgaq-d10-0.xlsx)
* instruct the editor to prepare Draft 12.0 incorporating these resolutions and
  + approve a 10 day Sponsor Recirculation Ballot asking the question “Should P802.11aq D12.0 be forwarded to RevCom?”

Moved: Lee Armstrong

Second: James Lepp

Result: Y/N/A = 6/0/1. Motion passes.

The TGaq motion deck document is updated to r36 with these results.

1. Preparation for November 2017 Plenary meeting
   * Room/Slot Allocation – 2 slots, room for 15.
2. Teleconference(s)
   * (22nd September was approved in July 2017)
   * 29th September, 6th, 13th, 20th October, 3rd November
   * 12:00 noon ET for 2 hours
3. Timeline update
   * Changed Final WG/EC Approval to October/November 2017, and RevCom/Standards Board Approval to December 2017.
4. AOB: none.
5. Meeting Adjourned at 18:15 local time with no objection.