IEEE P802.11  
Wireless LANs

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| Meeting Minutes September 2018 | | | | |
| Date: 2018-09-13 | | | | |
| Author(s): | | | | |
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Abstract

Minutes for the TGaz meeting, beginning on September 11th, 2018.

**IEEE 802.11 Task Group AZ**

**September 11th – 14th, 2018**

1. **TGaz – September 11th, 2018 – Slot #1**
   1. Called to order by TGaz chair, Jonathan Segev (Intel Corporation) at **10.35am HT**; Technical Editor, Chao Chun (MediaTek); Secretary (acting), Assaf Kasher (Qualcomm).
   2. Agenda Doc. [**IEEE 802.11-18/1384r1**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-01-00az-tgaz-sep-meeting-agenda.pptx)
   3. Review Patent Policy and logistics
      1. Chair reviewed the IEEE-SA Patent Policy, additional guidelines about IEEE-SA meeting and logistics – no clarifications requested.
      2. Chair called for any potentially essential patent, no one stepped up.
      3. Chair reviewed IEEE 802 WG participation as individual professional – no clarification requested.
      4. Chair reminded all to record their attendance
      5. Recorded Participation requirement
         1. Headcount: ~32 present
   4. Review Agenda
      1. Called for any additional submissions for the week.
      2. Agenda review and setting:
         1. Reviewed submissions for the week.
         2. Group originally scheduled for 5 slots
      3. Chair called for any additional feedback and changes to agenda.
      4. Submissions added to the agenda
      5. **Motion:** We approve the agenda in document [**11-18/1384r2**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-02-00az-tgaz-sep-meeting-agenda.pptx) (**in progress**)
         1. **Approved** by unanimous consent
   5. Approve previous meeting minutes (posted to Mentor August 1st, 2018)
      * 1. **Motion:** Move to approve document [11-18/1262r1](https://mentor.ieee.org/802.11/dcn/18/11-18-1262-01-00az-meeting-minutes-july-2018.docx) as TGaz meeting minutes for the July meeting.
        2. Moved: Assaf Kasher, Second: Qinghua Li.
        3. Discussion of the motion: none
        4. **Results (Y/N/A)**:10/0/0: **motion passes.**
   6. Review TGaz plan (chair)
   7. Final SFD Review [11-462-16](https://mentor.ieee.org/802.11/dcn/17/11-17-0462-16-00az-11-az-tg-sfd.doc) – Chao Chun Wang
      1. Only 3 additions in the July meeting.
   8. Comment Data base review - Chao Chun Wang ([11-18-1544-01](https://mentor.ieee.org/802.11/dcn/18/11-18-1544-01-00az-tgaz-cc-database.xls))
      1. When providing comment resolution document base the changes on page numbers and section on those on Draft 0.41
      2. Comments are assigned to individuals (documented in the comment data base)
   9. Document [11-18-1620r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1620-00-00az-spec-text-for-cfo-feedback-in-ista-to-rsta-lmr.docx) spec text for CFO feedback in ISTA to RSTA LMR – Feng Jiang
      1. C. What is the structure and size of the CFO Parameter
      2. R. It is not defined yet.
      3. Motion:
         1. **Motion:** Move to adopt document 11-18-1620r0 to the 802.11az draft and instruct the technical editor to incorporate it in the 802.11az draft amendment text.
         2. Moved: Feng Jiang, Second: Qinghua Li
         3. **Results 11/0/0, Motion Passed**
   10. **Reminder to do attendance**
   11. Meeting recessed at 12:26 HT
2. **TGaz – September 11th, 2018 – Slot #2**
   1. Called to order by TGaz Chair, Jonathan Segev (Intel Corporation) at **4.00pm HT**; and Secretary (acting) Assaf Kasher (Qualcomm).
   2. Agenda Doc. **Now working with revision** [**11-18/1384r3**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-02-00az-tgaz-sep-meeting-agenda.pptx) **(in progress)**
   3. Review Patent Policy and logistics
      1. Chair reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics – no clarifications requested.
      2. Chair called for any potentially essential patent, no one stepped up.
      3. Chair reviewed IEEE 802 WG participation as individual professional – no clarification requested, Chair asked for questions and comments, nobody stepped forward.
      4. Chair reminded all to record their attendance
      5. Recorded Participation requirement
         1. Headcount: ~14 present
   4. Agenda reviewed, one presentation moved, one presentation added.
   5. Nehru Bhandaru presented document [11-18-1313r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1313-00-00az-key-derivation-extensions-for-802-11az-measurement-security.docx)-Key derivation extensions for 802.11az measurement security
      1. Discussion on the nature of the Measurement Result SAC
      2. C. Is the token still needed
      3. C. SAC is needed to avoid a replay attack
      4. R. LMR is protected by PMF
      5. **Motion**: Move to adopt document 11-18-1313r0 to the 802.11az draft and instruct the technical editor to incorporate it in the 802.11az draft amendment text.
      6. Moved Christian Berger, Second Nehru Bhandaru
      7. **Results** 13/0/2 **Motion Passed**
   6. Feng Jiang presented [11-18-0539r1](https://mentor.ieee.org/802.11/dcn/18/11-18-0539-01-00az-existence-indication-of-attacker-or-jammer-in-lmr.pptx) – Existence Indication of Attacker or Jammer in LMR
      1. C. complexity is the same to the other proposal - can go both ways.
      2. R. First straw poll is agnostic to this complexity
      3. C. There may be issues in using the same LTF sequence in both 80MHz segments
      4. R. Came from offline discussion
      5. C. We prefer to use different sequences even if breaking the sequence is nearly impossible.
      6. C. The sequences must be simultaneous for the TOA measurements to be useful
      7. **Strawpoll**: For secured ranging on 80+80 and 160MHz bandwidths, do you support:  
         Using same LTF sequence for upper and lower 80MHz segments  
         Applying a sign flip between the two LTF sequences on upper and lower 80MHz segments is TBD.
      8. Results 10/3/3
      9. **Motion**: We agree that for secured ranging on 80+80 and 160MHz bandwidths the protocol shall:  
         Use same LTF sequence for upper and lower 80MHz segments  
         Applying of a sign flip between the two LTF sequences on upper and lower 80MHz segments is TBD.
      10. Moved Feng Jiang, Second Dibakar Das.
      11. **Results**: 5/4/5 **motion fails**
      12. Strawpoll: In the LMR for 80+80 and 160MHz bandwidths, do you support that:  
          There a single ToD and ToA field for both 80MHz segments.   
          The ToD for each 80MHz segment should be the same.
      13. Results: 11/0/5
      14. **Motion**: We agree that for LMR in the 80+80 and 160MHz bandwidths:

There a single ToD and ToA field for both 80MHz segments.

The ToD for each 80MHz segment should be the same.

* + 1. Moved Feng Jiang, Second Qinghua Li.
    2. **Results**: 12/0/3, **Motion Passes**
  1. Dibakar Das presented [11-18-1604r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1604-01-00az-availability-window-update.pptx) Availability Window Update
     1. **Strawpoll**: Do you support the following behaviour for ISTA to signal termination to RSTA: ISTA sends an FTM request frame and indicates termination. Once the FTM request is acknowledged the session is terminated.
     2. Results: 10/0/4
     3. **Motion:** We agree to the following protocol behaviour for ISTA to signal termination and Session modification to RSTA:

ISTA sends and FTM request frame and indicates termination

Once the FTM request is acknowledge the existing session is terminated

* + 1. Moved Dibakar Das, Second Qinghua Li
    2. **Results**: 12/0/3 **Motion passes**.
    3. **Strawpoll**: Do you support the following behaviour for RSTA to signal termination or update to ISTA:

For RSTA to terminate or modify and HEz or a VHTz session of a specific ISTA, The RSTA sends an FTM frame and an RSTA2ISTA LMR as an aggregated AMPDU. The FTM frame will be of type Action no ACK

* + 1. Results 12/0/2
    2. **Motion**: We agree to the following behaviour for RSTA to signal termination or update to ISTA:

For RSTA to terminate or modify and HEz or a VHTz session of a specific ISTA, The RSTA sends an FTM frame and a RSTA2ISTA LMR as an aggregated AMPDU. The FTM frame will be of type Action no ACK

* + 1. Moved Dibakar Das, Second Qinghua Li.
    2. **Results**: 12/0/2, **Motion Passed**.
    3. Dibakar Das presented [10-18-1248](https://mentor.ieee.org/802.11/dcn/18/11-18-1248-01-00az-hez-polling-amendment-text.docx)r1
    4. C. We agree that the TA represents BSSid?
    5. R. This is TBD as of today.
    6. Document modified to include “The TA field for the HE Poll frame Trigger sub-variant is TBD”
    7. **Motion:** Move to adopt 10-18-1248r1 to the 802.11az draft and instruct the technical editor to incorporate it in the 802.11az draft amendment text and grant editor rights to the technical editor.
    8. Mover: Harry Bims, Second: Qinghua Li.
    9. **Results 13/0/0 Motions Passes**.

1. **TGaz – September 12th, 2018 – Slot #3**
   1. Called to order by TGaz Chair, Jonathan Segev (Intel Corporation) at **4.00pm HT**; and Secretary (acting) Assaf Kasher (Qualcomm).
   2. Agenda Doc. **Now working with revision** [**11-18/1384r4**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-04-00az-tgaz-sep-meeting-agenda.pptx) **(in progress)**
   3. Review Patent Policy and logistics
      1. Chair called for any potentially essential patent, no one stepped up.
      2. Chair reviewed IEEE 802 WG participation as individual professional and Anti-trust compliance – no clarification requested, Chair asked for questions and comments, nobody stepped forward.
      3. Chair reminded all to record their attendance
      4. Recorded Participation requirement
         1. Headcount: ~29 present
   4. Agenda reviewed, one presentation moved, one presentation added.
   5. Assaf Kasher presented [11-18-1595r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1595-01-00az-los-assessment-draft-text.docx)
      1. **Motion**: Move to adopt document 11-18-1595r1 to the 802.11az draft, instruct the technical editor to incorporate it in the 802.11az draft amendment text and empower the editor to perform editorial changes.
      2. Moved Assaf Kasher, Second Qinghua Li.
      3. **Results**: 16/0/3, **Motion Passed**
   6. Yongho Seok presented [11-18-1619r1](https://mentor.ieee.org/802.11/dcn/18/11-18-1619-01-00az-cc28-cr-vhtz-hez-name-change.docx)
      1. C. Using non-TB ranging is problematic because in a way is also covers “legacy” FTM.
      2. **Strawpoll**: We support the adoption of 11-18-1619r1 to the 802.11az draft
      3. 20/1/1
      4. **Motion**: Move to adopt document 11-18-1619 to the 802.11az draft, instruct the technical editor to incorporate in in the 802.11az draft amendment text and empower the editor to perform editorial changes
      5. Moved: Yongho Seok, Second Qinghua Li.
      6. **Results**: 15/0/4, **Motion Passed.**
   7. Yongho Seok presented [11-18-1616](https://mentor.ieee.org/802.11/dcn/18/11-18-1616-00-00az-cc28-cr-secure-edmg-measurement-exchange-protocol.docx)
      1. C. Is the ACK frame protected.
      2. R. Not Clear
      3. C. Request to postpone motion to the next meeting slot.
      4. R. Moved to the next meeting slot.
   8. Erik Lindskog presented [11-18-1629](https://mentor.ieee.org/802.11/dcn/18/11-18-1629-00-00az-lmr-and-lci-reporting-for-passive-location.pptx)
      1. C. What is the Type TOD- TOA
      2. R. One TOA but multiple TODs. Need to identify which is the TOA.
      3. C. Why one TOA error and one TOD error while many TODs.
      4. R. Assumes that the sources of errors are Transmit Error sources and Receive Error Sources.
      5. C. what is the value of an invalid time stamp
      6. R. simplify the parsing mechanism when LMR is generated
      7. **Strawpoll**: Should the Passive Location HEz iSTA to rSTA LMR have the content described in slide 4 of submission 11-18-1629r0?
      8. Results: 15/0/2
      9. **Motion**: We agree that for Passive Location HEz iSTA to rSTA LMR have the content described in slide 4 of submission 11-18-1629r0?
      10. Moved Erik Lindskog, Second, Qinghua Li.
      11. **Results** (Y/N/A): 14/0/0, **Motion Passed.**
      12. **Starwpoll:** Should the HEz LCI/LMR Broadcast frames have the content described in slides 5 and 6 of submission 11-18-1629r0?
      13. Results: 15/0/1
      14. **Motion**: We agree that for Passive Location the HEz LCI/LMR Broadcast frames have the content described in slides 5 and 6 of submission 11-18-1629r0
      15. Moved: Erik Lindskog, Second: Chao Chun Wang
      16. **Results**: (Y/N/A): 13/0/1, **Motion Passed.**
      17. **Motion**: We agree that for Passive Location the LCI Table have the content described in slide 7 of submission 11-18-1629r0.
      18. Moved Erik Lindskog, Second Assaf Kasher
      19. **Results** 14/0/1, **Motion Passed.**
2. **TGaz – September 13th, 2018 – Slot #3**
   1. Called to order by TGaz Chair, Jonathan Segev (Intel Corporation) at **8.00Am HT**; and Secretary (acting) Assaf Kasher (Qualcomm).
   2. Agenda Doc. **Now working with revision** [**11-18/1384r5**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-05-00az-tgaz-sep-meeting-agenda.pptx) **(in progress)**
   3. Review Patent Policy and logistics
      1. Chair reminded that we operate under IEEE-SA patent policy. Chair called for any potentially essential patent, no one stepped up.
      2. Chair reviewed IEEE 802 WG participation as individual professional and Anti-trust compliance, Chair asked for questions and comments, nobody stepped forward.
      3. Chair reminded all to record their attendance
      4. Recorded Participation requirement
         1. Headcount: ~18 present
   4. Erik Lindskog presented [11-18-1628r0](https://mentor.ieee.org/802.11/dcn/18/11-18-1628-00-00az-hez-passive-ranging-schedule-announcement.pptx)
      1. C. The time units have not been defined yet for other ranging scheduling
      2. R. OK with making time units TBD
      3. **Strawpoll:** Should the schedule announcement for HE Passive Ranging be specified as in slide 5 of submission 11-18-1628. The units of temporal parameters are TBD.
      4. Discussion
         * 1. C. This is similar to what we have in HEz ranging – should be harmonized
           2. R. We can be harmonized later
      5. Results 14/0/3
      6. **Motion**: We agree that the schedule announcement for HE Passive Ranging be specified as in slide 5 of submission 11-18-1628.
      7. The units of temporal parameters are to be decided at a future time.
      8. Moved: Erik Lindskog, Second: Assaf Kasher
      9. **Result**: 13/0/4, **Motion Passed.**
      10. Strawpoll: Should the max number of Nsts in Passive HEz Ranging be limited to 4?
      11. Discussion
          1. C. Are you saying that client should not use more than 4 streams
          2. R. Yes
          3. C. We should have security, if we want 11az ISTA to have the same requirements as 11az we should limit to 4
      12. Results 9/0/7
      13. **Motion**: We agree that the max number of Nsts in Passive HEz Ranging be limited to 4.
      14. Moved: Erik Lindskog, Second: Assaf Kasher
      15. **Results**: (Y/N/A): 9/0/5, **Motion Passed**
   5. Yongho Seok presented [11-18-1616](https://mentor.ieee.org/802.11/dcn/18/11-18-1616-00-00az-cc28-cr-secure-edmg-measurement-exchange-protocol.docx)
      1. **Motion**: Move to adopt the resolution proposed by document 11-18-1616r0 for CID 527, 533 to the 802.11az draft, instruct the technical editor to incorporate it in the 802.11az draft amendment text and empower the editor to perform editorial changes.
      2. Moved Yongho Seok, Second Assaf Kasher
      3. **Results** 14/0/1, Motion Passed
   6. Dash Debashish [11-18-1630](https://mentor.ieee.org/802.11/dcn/18/11-18-1630-00-00az-sounding-only-support-during-ranging.pptx) –
      1. C. Only do the sounding
      2. R. Optional mode – no ranging only sounding
   7. Christian Berger [11-18-1631](https://mentor.ieee.org/802.11/dcn/18/11-18-1631-00-00az-hez-ul-ranging-amendment-text.docx)
      1. **Motion**: Move to adopt document 11-18-1631r0 to the 802.11az draft, instruct the technical editor to incorporate it in the 802.11az draft amendment text and empower the editor to perform editorial changes.
      2. Moved: Christian Berger, Niranjan Grandhe
      3. **Result** 13/0/0, **Motion Passed**
   8. Chair Recessed at 9:45
3. **TGaz – July 11th, 2018 – Slot #4**
   1. Called to order by TGaz Chair, Jonathan Segev (Intel Corporation) at **10:37AM, HT** and Secretary (Acting) Assaf Kasher (Qualcomm Inc.).
   2. Agenda Doc. **Now working with revision** [**11-18/1384r6**](https://mentor.ieee.org/802.11/dcn/18/11-18-1384-06-00az-tgaz-sep-meeting-agenda.pptx) **(in progress)**
   3. Review Patent Policy and logistics
      1. Chair reviewed the IEEE-SA Patency Policy, additional guidelines about IEEE-SA meeting and logistics – no clarifications requested.
      2. Chair called for any potentially essential patent, no one stepped up.
      3. Chair reviewed IEEE 802 WG participation as individual professional and that we operate under IEEE bylaws and antitrust laws– no clarification requested.
      4. Chair reminded all to record their attendance
      5. Recorded Participation requirement
         1. Headcount: ~15 present
   4. Chau Chun Wang presented 11-18-1544r3 – comment data base
      1. Some comments assigned
   5. Chair reviewed project time line.
      1. C: what is the gain in having an earlier schedule?
      2. R. If we don’t follow the timeline and keep adding features, we may be degrading the standard
      3. C. we can add features using comments
      4. R. Once we go to letter ballot we have to follow IEEE SA rules which are very strict.
      5. **Motion**: We commit to the project timelines as shown in slide 65 of submission 11-18-1384r6, and approve the following process:

Continue focusing on comment resolution in between now and end of Jan. IEEE meeting.

Consider submission targeted towards improving the quality of the protocol in the existing amendment draft.

Target Initial WG ballot coming out of the January meeting

* + 1. Moved: Christian Berger, Second: Erik Lindskog
    2. **Results**: 10/0/1, **Motion Passed**
    3. **Motion**: We commit to the telecon times and the process for CR as shown in slide 68 of submission 11-18-1384r6.
    4. Moved: Assaf Kasher, Second: Qinghua Li.
    5. **Result**: 11/0/1, **Motion Passed**
  1. Motion to amend agenda to present 11-18-1623
     1. Moved: Qinghua Li, Second Lindskog
     2. **Results**: 10/0/0, **Motion Passed**
  2. Qinghua Li presented [11-18-1623](https://mentor.ieee.org/802.11/dcn/18/11-18-1623-02-00az-spec-text-for-subcarrier-mapping-in-secure-mode.docx)

5.8 Chair Adjourned the meeting at 11:37

**References:**