IEEE P802.11  
Wireless LANs

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| January 2023 Interim Minutes | | | | |
| Date: 2023-01-16 | | | | |
| Author(s): | | | | |
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Abstract

This document contains TGaz January 2023 Interim minutes

1. **TGbk – January 16th, 2023**
   1. Called to order by TGbk Chair, Jonathan Segev (Intel Corporation) at **13:30 EST,**
   2. Agenda Doc. [**IEEE 802.11-22/2192**](https://mentor.ieee.org/802.11/dcn/22/11-22-2192-02-00bk-tgbk-january-meeting-agenda.pptx) **(in progress - slide 1)**
   3. Review Patent Policy and logistics
      1. Chair reviewed meeting logistics and the duty to register if one is present at the meeting
      2. Chair reviewed the IEEE-SA Patent Policy, duty to inform, the guideline for IEEE WG meetings and logistics – no clarifications requested.
      3. Chair called for any potentially essential patents, no one stepped forward.
      4. Chair reminded participants to register their attendance using imat.
      5. Chair reviewed other guidelines for IEEE meetings, asked if any clarifications are requested, no one stepped forward.
      6. Chair reviewed IEEE copyright policy, – no clarification requested
      7. Chair reviewed IEEE code of ethics and WG participation as an individual professional. – no clarification requested
      8. Chair reviewed IEEE 802 ground rules
      9. Recorded Participation requirement  
         Headcount: ~22 present
   4. Agenda
      1. Election/affirmation of vice-chair, editor, and secretary, leadership position
      2. Discuss process for draft development
      3. Review technical submissions
      4. Review process through the week
   5. Agenda for January 16th meeting
      1. Election/affirmation of vice-chair, editor, and secretary leadership position
      2. Discuss process for draft development
      3. Review Technical Submission
   6. Election of officer
      1. Motion (202301-01) to elect Assaf Kasher as TGbk vice chair
         1. Moved by Ali Raissinia
         2. Seconded by Roy Want
         3. Results Approved by Unanimous Consent
      2. Motion (202301-02) to elect Roy Want as TGbk technical editor
         1. Moved by Christian Berger
         2. Seconded by Ali Raissinia
         3. Results: Approved by Unanimous Consent
      3. Motion (202301-03) to elect Assaf Kasher as TGbk secretary
         1. Moved by chao Chun Wang
         2. Second by Roy Want
         3. Results: Approved by Unanimous Consent
   7. Discuss Process for Draft Development
      1. Chair presented slide 27
      2. Suggested model: Start with Specification Framework and follow with draft amendment
      3. Strawpoll:  
         We agree to follow the amendment text development process depicted in 11-22-2192 slide 32  
         Results (Y/N/A) : 25/0/6
      4. Motion (202301-04)  
         Move to adopt the process depicted in 11-22-2192r3 slide 32 as TGbk amendment text development process.  
         Moved by Chao Chun Wang  
         Seconded by Alecsander Eitan  
         Results: Approved by Unanimous Consent
   8. Steve Shellhammer reviewed 11-23-0040
      1. Title Proposal on 320 MHz Ranging NDP
      2. Comments: Need to have a strawpoll on whether secure sequences are used
      3. Strawpoll   
         Do you agree that 802.11bk will only support the 2x LTF with 1.6 GI for both the 320MHz Ranging NDP and the 320 MHz TB Ranging NDP  
         Results: 22/0/7
   9. Recess at 15:30 EST
2. **TGbk – January 17th, 2023**
   1. Called to order by TGbk Chair, Jonathan Segev (Intel Corporation) at **13:30 EST,**
   2. Agenda Doc. [**IEEE 802.11-22/2192r3**](https://mentor.ieee.org/802.11/dcn/22/11-22-2192-02-00bk-tgbk-january-meeting-agenda.pptx) **(in progress - slide 1)**
   3. Review Patent Policy and logistics
      1. Chair reviewed meeting logistics and the duty to register if one is present at the meeting
      2. Chair reviewed the IEEE-SA Patent Policy, duty to inform, the guideline for IEEE WG meetings and logistics – no clarifications requested.
      3. Chair called for any potentially essential patents, no one stepped forward.
      4. Chair reminded participants to register their attendance using imat.
      5. Chair reviewed other guidelines for IEEE meetings, asked if any clarifications are requested, no one stepped forward.
      6. Chair reviewed IEEE copyright policy, – no clarification requested
      7. Chair reviewed IEEE code of ethics and WG participation as an individual professional. – no clarification requested
      8. Chair reviewed IEEE 802 ground rules
      9. Recorded Participation requirement  
         Headcount: ~13 present
   4. Agenda
      1. Review Technical submission:
         1. 11-23-040 completion
         2. 11-23-048 Follow up on 302mHz NTB/TB ranging
   5. Yanjun Sun presented 11-22-048
      1. In 11be 80+80 is deprecated
      2. Sometime there is a phase jump at DC with 160+160 even with a single LO
      3. How is the puncturing pattern broadcast (thru beacons , it is classified as a critical change, another option is channel switch announcement)
      4. Values 6-7 are used by 11bd – we will use the next available value.
      5. How does a legacy 11az device identify an EHT device?
      6. When I send a trigger poll, what kind of frame you want them to send? Response: an HE
      7. Strawpoll  
         Do you agree that the 320 MHz NDP Announcement frame of 802.11bk will use existing Ranging NDP Announcement variant encoding in 802.11az and existing 320MHz indication in 802.11be?
      * No change to the 802.11az Ranging NDP Announcement MAC content
      * For a non-HT dup PPDU: set B7 in SERVICE field to 1 to indicate 320 MHz
      * For an EHT MU PPDU: use the Bandwidth field in the U-SIG field to indicate 320 MHz

Results deferred

* 1. Steve Shellhammer presented 11-22-0040
     1. Strawpoll   
        Do you agree that 802.11bk Introduces EHT Ranging NDP that will be based upon the EHT MU PPDU preamble?  
        Results 23/1/6  
        Motion (202301-05)  
        Move to adopt EHT MU PPDU preamble for the 802.11bk EHT Ranging NDP  
        Moved by Steve Shellhammer  
        Seconded by Chao Chun Wang  
        Approved by Unanimous Consent
     2. Motion 202301-06  
        Move to adopt the 2xLTF with 1.6usec GI for both the EHT Ranging NDP and the EHT TB ranging NDP   
        Moved by Steve Shellhammer  
        Seconded by Qinghua Li  
        Results : Approved by Unanimous Consent
     3. Strawpoll  
        Do you agree that 802.11bk introduces EHT TB Ranging NDP that will be based upon the EHT TB PPDU preamble  
        Results 22/0/8
     4. Motion 202301-07  
        Move to adopt that 802.11bk introduces EHT TB Ranging NDP that will be based upon the EHT TB PPDU preambleMoved by Steve Shellhammer  
        Seconded by Jianhan LiuResults : Approved by Unanimous Consent

1. **TGbk – January 18th, 2023**
   1. Called to order by TGbk Chair, Jonathan Segev (Intel Corporation) at **16:00 EST,**
   2. Agenda Doc. [**IEEE 802.11-22/2192r4**](https://mentor.ieee.org/802.11/dcn/22/11-22-2192-02-00bk-tgbk-january-meeting-agenda.pptx) **(in progress - slide 1)**
   3. Review Patent Policy and logistics
      1. Chair reviewed meeting logistics and the duty to register if one is present at the meeting
      2. Chair reviewed the IEEE-SA Patent Policy, duty to inform, the guideline for IEEE WG meetings and logistics – no clarifications requested.
      3. Chair called for any potentially essential patents, no one stepped forward.
      4. Chair reminded participants to register their attendance using imat.
      5. Chair reviewed other guidelines for IEEE meetings, asked if any clarifications are requested, no one stepped forward.
      6. Chair reviewed IEEE copyright policy, – no clarification requested
      7. Chair reviewed IEEE code of ethics and WG participation as an individual professional. – no clarification requested
      8. Chair reviewed IEEE 802 ground rules
      9. Recorded Participation requirement  
         Headcount: ~29 present
   4. Agenda
      1. Review Technical submissions:
         1. 11-23-0404 Proposal on 320 MHz Ranging NDP
         2. 11-23-048 Follow-up on 320Mhz NTB/TB ranging
   5. Steve Shellhammer continued presentation 11-23-0040
      1. Strawpoll  
         Do you agree that for non-secure LTF 802.11bk will use the 320 EHT LTFs for both the 320 MHz Ranging NDP and the 320 MHz TB Ranging NDP?  
         Results: Unanimous agreement
      2. Strawpoll:  
         Do you agree that 802.11bk will support up to eight EHT-LTF Repetition Blocks for both the EHT Ranging NDP and EHT TB Ranging NDP, and will not support extra EHT LTFs?  
         Results: 14/0/3
      3. Motion 202301-08  
         Move to include in the SFD that “802.11bk will support up to eight EHT-LTF Repetition Blocks for both the EHT Ranging NDP and EHT TB Ranging NDP, and will not support extra EHT LTFs.”  
         Moved by Steve Shellhammer  
         Seconded by Qinghua Li  
         Results: Approved by Unanimous Consent
      4. Strawpoll  
         Do you agree that 802.11bk will support secure ranging, using AES-128 for pseudo random octet generation and use 64-QAM modulation?  
         Note: 802.11az uses AES-128 for pseudo random octet generation and 64-QAM modulation for secure LTFs  
         results: 14/0/3
      5. Motion 202301-09  
         Moved to include in the SFD that “802.11bk will support secure ranging, using AES-128 for pseudo random octet generation and use 64-QAM modulation”

Moved by : Steve Shellhammer

Second by: Roy Want

Results: Approved by Unanimous Consent

* + 1. Strawpoll:  
       Do you agree that for secure LTF ranging 802.11bk will use a 4-way octet parser to parse the pseudo random octets between the four 80-MHz segments, and that when either 40 MHz and/or 80 MHz is punctured then the pseudo random octets which would have been sent to that punctured bandwidth be dropped at both the transmitter and the receiver?
    2. Note: This is illustrated on Slides 10-13
    3. Motion 202301-10  
       Move to include that “802.11bk secure LTF ranging will use a 4-way octet parser to parse the pseudo random octets between the four 80-MHz segments, and that when either 40 MHz and/or 80 MHz is punctured then the pseudo random octets which would have been sent to that punctured bandwidth be dropped at both the transmitter and the receiver”
    4. Moved by Steve Shellhammer
    5. Seconded by Ali Raissinia
    6. Results: Approved by Unanimous Consent
    7. Strawpoll  
       Do you agree that in 802.11bk an 8 µs PE duration will be used in both the EHT Ranging NDP and the 320 MHz TB Ranging NDP  
       Results: Deferred
    8. StrawpollDo you agree that in both the EHT Ranging NDP and the EHT TB Ranging NDP signaling be included in the U-SIG indicating the NDP is a Ranging NDP.Results: Deferred
    9. Motion 202301-11  
       Move to include in the SFD that “the EHT Ranging NDP and the EHT TB Ranging NDP both use the 2xLTF with 1.6usec GI”   
       Moved by Steve ShellhammerSeconded by Qinghua Li  
       Results: Approved by Unanimous Consent
    10. Yanjun Sun presented 11-23-0048
    11. Strawpoll  
        Do you agree that the 320 MHz NDP Announcement frame of 802.11bk will use existing Ranging NDP Announcement variant encoding in 802.11az and existing 320MHz indication in 802.11be?
    - No change to the 802.11az Ranging NDP Announcement MAC content
    - For a non-HT dup PPDU: set B7 in SERVICE field to 1 to indicate 320 MHz
    - For an EHT MU PPDU: use the Bandwidth field in the U-SIG field to indicate 320 MHz
    1. Results: 16/0/1
    2. Motion 202301-12  
       Moved to include in the SFD that  
       “The Ranging NDP announcement frame of 802.11bk will use the existing Ranging NDP announcement variant encoding of 802.11az and existing 320MHa indication of 802.11be  
       -There is no change to the 802.11az Ranging NDP announcement MAC content  
       -For the non-HT dup PPDU: set B7 in Service field to 1 to indicate 320MHz  
       -For an EHT MU PPDU use the Bandwidth field in the U-SIG field to indicate 320MHz”  
       Moved by: Yanjun Sun  
       Seconded by Ali Raissinia   
       Results: Approved by Unanimous Consent
    3. Strawpoll:  
       Do you agree that a 320 MHz Ranging Trigger frame in 802.11bk sets the Trigger Type subfield in the Common Info field to 8 as in 802.11az and includes the Special User Info field immediately after the Common Info field as defined in 802.11be?  
       Results: 14/0
    4. Motion 202301-13  
       Move to include in the SFD that:  
       **“**Ranging Trigger frame in 802.11bk sets the Trigger Type subfield in the Common Info field to 8 as in 802.11az and includes the Special User Info field immediately after the Common Info field as defined in 802.11be?”  
       Moved by Yanjun Sun  
       Seconded by Ali Raissinia  
       Results: Approved by Unanimous Consent

1. **TGbk – January 19th, 2023**
   1. Called to order by TGbk Chair, Jonathan Segev (Intel Corporation) at **16:00 EST,**
   2. Agenda Doc. [**IEEE 802.11-22/2192r6**](https://mentor.ieee.org/802.11/dcn/22/11-22-2192-06-00bk-tgbk-january-meeting-agenda.pptx) **(in progress - slide 1)**
   3. Review Patent Policy and logistics
      1. Chair reviewed meeting logistics and the duty to register if one is present at the meeting
      2. Chair reviewed the IEEE-SA Patent Policy, duty to inform, the guideline for IEEE WG meetings and logistics – no clarifications requested.
      3. Chair called for any potentially essential patents, no one stepped forward.
      4. Chair reminded participants to register their attendance using imat.
      5. Chair reviewed other guidelines for IEEE meetings, asked if any clarifications are requested, no one stepped forward.
      6. Chair reviewed IEEE copyright policy, – no clarification requested
      7. Chair reviewed IEEE code of ethics and WG participation as an individual professional. – no clarification requested
      8. Chair reviewed IEEE 802 ground rules
      9. Recorded Participation requirement  
         Headcount: ~29 present
   4. Agenda
      1. Review technical submissions
      2. Discuss readiness to go to draft text and draft structure
      3. Review progress made during the week
      4. Review preliminary project timelines
      5. Set telecons times
      6. Review submission pipeline
      7. Agenda Approved
      8. Submission list
         1. 11-23-11 Tianyu Wu – Discussions on puncturing in 320Mhz Ranging NDP
         2. 11-130 Steve Shellhammer Packet Extension
   5. Tianyu Wu presented 11-22-110
      1. What will happen if the BSS uses punctured mode:
      2. Response We could use the 240Mhz part, we consider the tradeoff. We do not see the benefit of using such other punctured
      3. I support having a minimal number of modes, we are not decoding data here, so a small set of modes is desired.
      4. If only one or two modes are supported, we can add it to the format and BW field
      5. In a next version of the document can you provide the gain in accuracy in going from 160 to 240 and 320.
      6. Strawpoll   
         Do you agree that 11bk only support non-punctured 320MHz Ranging NDP and continuous 240MHz Ranging NDP  
         Results: (Y/N/A) 21/9/5
   6. Steve Shellhammer presented 11-23-130
      1. Title Packet Extension
      2. Strawpoll:  
         Do you agree than in 802.11bk an 8usec PE duration will be used in both the EHT Ranging NDP and the EHT TB Ranging NDP  
         Results: (Y/N/A) 17/3/4
      3. Motion 2023001-14  
         Move to include in the SFD that:  
         “The EHT Ranging NDP and the EHT TB Ranging NDP shall only have an 8 usec PE duration”  
         Moved by Steve Shellhammer  
         Seconded by Ali Raissinia
      4. We have reviewed the chat window and recorded votes that appeared on the chat Window
      5. Results (Y/N/A) 17/7/5 – motion fails
   7. Yanjun Sun reviewed 11-22-048r2
      1. Strawpoll  
         Do you agree that IFTMR/IFTM frames of 802.11bk will use a reserved subelement to indicate information on transmit power envelope of the BSS for 320MHz  
         Results (Y/N/A) 9/0/14
      2. Motion 202301-15  
         Move to include in the SFD that:  
         “802.11bk will extend the IFTMR and IFTM frames with s new subelement to indicate information on transmit power envelope of the BSS”  
         Moved by : Yanjun Sun  
         Seconded by: Steve Shellhammer  
         Results: Approved by Unanimous Consent
   8. Discuss Readiness to go to draft text and draft structure
   9. Preliminary timeline in slide 48
   10. Jan meeting progress and targets towards March – slide 50,51
   11. AOB
   12. Adjourned at 15:30 EST

**References:**