Minutes IEEE P802.11  
Wireless LANs

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| IEEE 802.11 TGbh Interim Meeting Minutes, May 12-17, 2024  Randomized and Changing MAC addresses (RCM) | | | | |
| Date: 2024-06-03 | | | | |
| Author(s): | | | | |
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Abstract

This document contains the minutes of the IEEE 802.11bh interim meeting of May 12-17, 2024.

Note: Highlighted text are action items.

Q- proceeds a question asked at the meeting

A- proceeds an answer

C- proceeds a comment

**Meeting May 13th, 2024, 7:30 p.m. to 9:30 p.m. CEST**

**Chair: Mark Hamilton (Ruckus/CommScope)**

**Vice Chair: Peter Yee (NSA-CSD/AKAYLA)**

**Vice Chair: Stephen Orr (Cisco)**

**Secretary: Peter Yee**

**Editor: Carol Ansley (Cox Communications)**

**The mixed-mode meeting was called to order by the Chair at 7:35 p.m. CEST.**

Agenda slide deck [11-24/0662r04](https://mentor.ieee.org/802.11/dcn/24/11-24-0662-04-00bh-agenda-tgbh-2024-may-session.pptx)

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 15)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + May session meetings: Monday, 19:30-21:30; Tuesday, 8:00-10:00 and 13:30-15:30; Wednesday, 8:00-10:00; Thursday 13:30-15:30
  + Approve March Plenary and teleconference minutes (next slide)
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r42](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-42-00bh-tgbh-motions-list.pptx)
* **Leadership election(s)/appointments/confirmations (slides 20-21)**
* **Comment Resolution**
  + Comment resolution document: [11-24/0883r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-01-00bh-p802-11bh-initial-sa-comments.xlsx)
  + Review and disposition of Initial SA LB comments (slide 19)

With minor changes to the ordering of the comment resolution queue, the agenda was approved with unanimous consent.

1. **Approval of Minutes**

The minutes of the March plenary session ([11-24/0290r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0290-00-00bh-minutes-tgbh-plenary-meeting-march-2024.docx)) were approved by unanimous consent as were the minutes ([11-24/0680r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0680-00-00bh-802-11bh-crc-telecon-minutes-april-9-2024.docx)) of the April 9th teleconference.

1. **Timeline reminder**

As previously agreed, the initial SA ballot ran in April 2024. If we can complete comment resolution at this session, then a recirculation SA ballot is expected coming out of this meeting. Final approvals are targeted for September 2024 alongside the approvals for REVme.

1. **Leadership elections/appointments/confirmations**

There are two self-nominations for the vice-chair positions: Peter Yee and Stephen Orr are willing to continue in their positions. Jay Yang (ZTE) has volunteered to serve as secretary alongside Peter Yee. A motion to “Approve Peter Yee and Stephen Orr as TGbh Vice Chairs, and confirm Jay Yang and Peter Yee as TGbh Secretaries” was made by Jouni Malinen (Qualcomm) and seconded by Yan Li (ZTE). The motion was approved by unanimous consent.

1. **Comment Resolution**

The comments (and their resolutions as developed) can be found in [11-23/0883r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-01-00bh-p802-11bh-initial-sa-comments.xlsx).

1. **SA Comments in subclause 12.2.12.1**

Jay Yang presented [11-24/0885r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0885-02-00bh-cr-for-sa-comments-in-12-2-12-1.docx), which covers “SA Comments in subclause 12.2.12.1”. The comment identifiers (CIDs) covered are 3012, 3013, 3020, 3038, 3039, 3040, 3041, 3042, 3043, 3055, 3074, 3075, 3076, 3082, 3114, 3127, 3128, 3131, 3133, 3134, 3145, 3147, 3194, and 3200. CID 3012 proposes changes of the article “the” to “a” before “Device ID” in several locations. This is accepted. CID 3013 suggests that device IDs should not be open to deletion at any point. The statement could be made informative by placing it in a note and changing the “may” to “might”. Yang suggests this is similar to PMKSA caching language and thus the comment should be rejected. Others feel that the language should be split between a note (for the example text given in the parenthetical element of the sentence) and normative but permissive (“may”) language. CID 3041 also makes change to the language of the sentence. The resolution will be to revise the resolutions in both CID 3013 and CID 3041 to move the parenthetical text to a separate note and flesh that text out into a full sentence. CID 3020 is similarly revised as it is part of the same text. CID 3038 is to be rejected. CID 3039 is rejected because Reassociation is outside of the scope for 802.11bh, so the request to change text to read “(Re)Association Request” can’t be accepted. CID 3040 is similarly rejected. CID 3042 swaps two paragraphs to make the flow of the text from the more specific to the less specific. The better resolution is to make the first paragraph specific to non-PASN frames. CID 3043 changes a “may” to a “shall” on page 36, line 11. The comment is accepted in slightly revised form. Mark Rison (Samsung) disagrees with this resolution, believing it should merely be accepted. CID 3055 is correct because associations are between peers (a STA and an AP), not between a STA and an ESS. Acceptance or revision of this resolution will affect the resolutions of CIDs 3013, 3041, and 3020. Instead, the parenthetical text will be deleted because it refers to “the ESS” without an antecedent for “the ESS”. CID 3074 is accepted as a simple language cleanup. CID 3075 is accepted in revised form. CID 3076 wants to ease the requirement that that two APs in an example be on the same ESS. However, this is just an example, so it doesn’t have to be as broad as the commenter might like. And the comment implies some new, unknown synchronization mechanism between these APs. The group agreed to reject the comment. CID 3082 is rejected because the case it raises is already covered by the existing text. CID 3114 is accepted to fix a “device ID” capitalization error.

**Meeting recessed at 21:30 p.m. CEST.**

**Meeting May 14th, 2024, 8:00 a.m. to 10:00 a.m. CEST**

**Chair: Mark Hamilton (Ruckus/CommScope)**

**Vice Chair: Peter Yee (NSA-CSD/AKAYLA)**

**Vice Chair: Stephen Orr (Cisco)**

**Secretary: Jay Yang, Peter Yee**

**Editor: Carol Ansley (Cox Communications)**

**The mixed-mode meeting was called to order by the Chair at 8:03 a.m. CEST.**

Agenda slide deck [11-24/0662r05](https://mentor.ieee.org/802.11/dcn/24/11-24-0662-05-00bh-agenda-tgbh-2024-may-session.pptx)

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 15)**
2. **Agenda**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + May session meetings: Monday, 19:30-21:30; Tuesday, 8:00-10:00 and 13:30-15:30; Wednesday, 8:00-10:00; Thursday 13:30-15:30
  + Timeline discussion (slide 18)
  + Motions record: [11-22/0651r42](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-42-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0883r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-02-00bh-p802-11bh-initial-sa-comments.xlsx)
  + Review and disposition of Initial SA LB comments (slide 19)

1. **Timeline**

Given the timeline for REVme, which is IEEE 802.11bh’s baseline, it seems like going to a recirculation ballot out of this meeting is unnecessary. In any case, it’s dicey given how many comments need to be resolved. Thus, we could change our timeline to see the recirculation started out of the planned June ad hoc session. Operating as a CRC, the group is decoupled from the WG in any case, so there is some level of flexibility. The TGbh chair will check with the TGme chair and the TGbe chair to ensure that our timeline fits in with the sequence for both groups.

1. **CID 3015 Device ID and PASN**

Graham Smith (SRT) gave his resolution ([11-24/0896r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0896-01-00bh-cid-3015-device-id-and-pasn.docx)) for CID 3015. This CID requests the ability to have both permanent and temporary device IDs because of how PASN discloses the device ID. Smith’s resolution stands in place to using an opaque identifier. For PASN uses, a temporary ID is used (to be called a “PASN ID” but otherwise the same as a device ID), while the permanent ID is retained for non-PASN uses. The thinking is that a STA that is doing FTM would be squandering its permanent ID pinging multiple APs in order to derive a location. There was a discussion of whether the device ID is actually sent in the clear. It seems this is done in the first PASN frame (from the non-AP STA to the AP). Table 9-71 does not indicate that PASN frame 1 is modified to carry the (unencrypted) device ID. This lack of an entry in Table 9-71 was apparently an oversight. Smith handed over to Yan Li for an additional presentation on the topic.

1. **CR for CIDs in PASN ID**

Li offered [11-24/0789r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0789-00-00bh-cr-for-pasn-id.docx), which covers CIDs 3003 and 3015. He agrees with Smith that a long-term Device ID and a short-term PASN ID need to be provided, in an initial connection and in the case of of the STA being “not recognized”. He offers extensive changes to the specification that provide for a PASN ID. In response to several questions from other participants, Li clarified his proposal for the PASN ID and its use. It seems that the PASN ID needs to be more explicitly defined in terms of how it is generated and updated along with differentiation from the opaque ID scheme. There’s probably a need to clarify that Figure 12-0a applies to both an initial connection for purposes of associating and an initial connection purely for the purposes of performing PASN-secured ranging. It’s not clear to everyone that both cases (associating and pure PASN) are adequately covered and differentiated in either Smith’s or Li’s presentation, although some found the text clear but the use case (associate first, then do PASN with other APs in the ESS while associated with the first AP) dubious.

Further thought and discussion of both presentations is needed before a decision can be made on how to proceed with CIDs 3003 and 3015.

1. **CR for KEK size**

Po-Kai Huang (Intel) briefed [11-24/0891r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0891-01-00bh-cr-for-kek-size.docx), which resolves CID 21. That CID corrects a perceived security strength mismatch in the rows in Table 12-11. A comment from the floor disagreed with Huang’s approach, preferring to just use the strongest KEK size rather than basing the size off of the pairwise cipher, which can be different than AKM security strength selections. This presentation will be discussed further offline before any decisions are taken on the comment resolution.

**Meeting recessed at 10:00 a.m. CEST.**

**Meeting May 14th, 2024, 1:30 p.m. to 3:30 p.m. CEST**

**Chair: Mark Hamilton (Ruckus/CommScope)**

**Vice Chair: Peter Yee (NSA-CSD/AKAYLA)**

**Vice Chair: Stephen Orr (Cisco)**

**Secretary: Jay Yang, Peter Yee**

**Editor: Carol Ansley (Cox Communications)**

**The mixed-mode meeting was called to order by the Chair at 1:33 p.m. CEST.**

Agenda slide deck [11-24/0662r06](https://mentor.ieee.org/802.11/dcn/24/11-24-0662-06-00bh-agenda-tgbh-2024-may-session.pptx)

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 15)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + May session meetings: Monday, 19:30-21:30; Tuesday, 8:00-10:00 and 13:30-15:30; Wednesday, 8:00-10:00; Thursday 13:30-15:30
  + Timeline discussion (slide 18)
  + Motions record: [11-22/0651r42](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-42-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0883r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-02-00bh-p802-11bh-initial-sa-comments.xlsx)
  + Review and disposition of Initial SA LB comments (slide 19)

1. **Timeline discussion**

New information has been received on the TGme and TGbe timelines. In order not to upset any of those timelines, we should still be targeting final 802.11 WG approval in July, with 802 EC approval also in July. Then, we can go for RevCom and SASB approval in September. If more recirculation ballots occur than expected, we still have a couple of months to cycle in the ballot process without upsetting TGbe’s timeline. They’re showing September for unconditional WG approval of their specification, October for EC approval, and December approval by RevCom and SASB. It seems unlikely we will do a recirculation ballot for IEEE 802.11bh out of this session but could do so out of the June ad hoc session. Additional teleconferences before the ad hoc would be possible but shouldn’t be planned on until the end of this session when we have a better idea of how many comments remain unresolved.

1. **Comment resolution**

There are a few unassigned CIDs that require a submission. The current state of comment resolution is found in [11-24/0883r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-02-00bh-p802-11bh-initial-sa-comments.xlsx), but this doesn’t reflect all of the resolution work done today.

1. **SA CR for CID 3131**

Okan Mutgan (Nokia) presented [11-24/0898r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0898-00-00bh-sa-cr-for-cid3131.docx), which deals with CID 3131. This CD requests example figures for the signaling for IRM and device ID, covering both identifier recognized and not recognized cases. Mutgan’s contribution removes the existing Figure 12-0a and some associated text, replacing it with a new annex that contains 6 figures and associated text. The figures are labeled as:

* AX-1: Example of device ID exchange in 4-way Handshake
* AX-2: Example of device ID exchange in FILS
* AX-3: Example of device ID exchange in PASN
* AX-4: Example of IRM exchange in 4-way Handshake
* AX-5: Example of IRM exchange in FILS
* AX-6: Example of IRM exchange in PASN

Mutgan notes an error in AX-1 where the signaling should be in the 4-way handshake. This figure will need to be redrawn. None of the non-PASN figures show multiple APs in an ESS, which would be more informative but also more complex. The group appears to be favor of Mutgan continuing down this path.

1. **SA CR for CID3132**

Mutgan then showed [11-24/0918r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0918-00-00bh-sa-cr-for-cid3132.docx), which covers CID 3132. The request in that CID is to move subsection 12.2.13 (Encryption of the Encrypted Data field in the PASN Encrypted Data element in PASN) under the PASN subsection (12.13), where it makes more sense. Mutgan’s revision is to change section 12.2.13 into 12.13.10. He also changes the first sentence to be a “can” instead of a “shall” sentence, but this seems unnecessary as the section should apply to all uses of the Encrypted Data field. That change will be backed out. The deletion at the beginning of the sentence reading, “When using PASN authentication,” is fine, since the text is now in the PASN subsection and use of PASN can be assumed. There are some other changes that flow from the text move that change “element” to “subelement” and renumber the references that originally pointed to 12.2.13. To this point, it was noted that “subfield” should not be a term used in the document. The group is generally agreeable with the resolution, modulo seeing the updated version of his presentation.

1. **SA CIDR 3120**

Antonio de la Oliva (InterDigital) offered [11-24/0904r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0904-00-00bh-sa-cidr-3120.xlsx), which resolves CID 3120 (his own comment). The proposal is to add “measurement ID” as also being protected against traffic analysis. The group is amenable to the resolution.

De la Oliva then suggested a response to CID 3121 that will align the presence of the device ID field with the IRM field, rather than having it always present and its value reserved in one direction. For CID 3122, some additional thought will be required.

1. **CIDs on IRM**

Smith presented [11-24/0916r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0916-00-00bh-cids-on-irm.docx), which resolves IRM-related CIDs 3001, 3024, 3031, 3033, 3034, 3045, 3046, 3047, 3048, 3050, 3056, 3057, 3058, 3059, 3071, 3073, 3077, 3078, 3079, 3080, 3081, 3083, 3085, 3086, 3088, 3089, 3090, 3094, 3096, 3097, 3103, 3195, 3196, and 3197. For CID 3085 asking for a formal definition and requirements for IRM generation, the feeling is that just saying “random” suffices without getting into the address quadrant (SLAP) part of the request. However, there is already text in the specification (reading, “An IRM is a MAC address that is constructed from the locally administered address space. A non-AP STA should construct randomized IRMs according to IEEE Std 802-2014 and IEEE Std 802c-2017.”) This could be changed from “should” to “shall” and possibly then be responsive to the comment. A bit more discussion is needed before the group reaches consensus on this comment, but time ran out.

**Meeting recessed at 3:33 p.m. CEST.**

**Meeting May 15th, 2024, 8:00 a.m. to 10:00 a.m. CEST**

**Chair: Mark Hamilton (Ruckus/CommScope)**

**Vice Chair: Peter Yee (NSA-CSD/AKAYLA)**

**Vice Chair: Stephen Orr (Cisco)**

**Secretary: Jay Yang, Peter Yee**

**Editor: Carol Ansley (Cox Communications)**

**The mixed-mode meeting was called to order by the Chair at 8:02 a.m. CEST.**

Agenda slide deck [11-24/0662r09](https://mentor.ieee.org/802.11/dcn/24/11-24-0662-09-00bh-agenda-tgbh-2024-may-session.pptx)

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 15)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + May session meetings: Monday, 19:30-21:30; Tuesday, 8:00-10:00 and 13:30-15:30; Wednesday, 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r42](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-42-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0883r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-03-00bh-p802-11bh-initial-sa-comments.xlsx)
  + Review and disposition of Initial SA LB comments (slide 19)
    - June ad hoc information and planning (motion on Thursday): [11-24/0929r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0929-00-00bh-invitation-letter-for-june-tgbh-adhoc-sunnyvale.docx)
    - Pause for a check on status, and “way forward” plan, review tracking sheet

1. **Adding devID to Association**

Dan Harkins (HPE) gave an updated presentation ([11-24/0068r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-02-00bh-devid-in-assoc.docx)), which addresses CID 3133. The commenter (Harkins) wants to add the Device ID to the Associate Request/Response instead of waiting to send it in message 3 of the 4-way handshake even when not doing FILS. This would cause Annex AF to become normative and part of section 12. Based on input from the group, additional refinement of the proposal will be needed before it can be motioned for inclusion in the draft. In order to determine whether the group would support this effort, a straw poll was run, asking, “Do you support adding a device ID to non-FILS Association Req/Rsp frames?” The result was 8/10/6 (Y/N/A).

1. **P802.11bh Activated vs Supported**

Robert Stacey (Intel) offered [11-24/0919r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0919-02-00bh-cr-on-activated-vs-supported.docx), which responds to CID 3030. That CID notes that the distinction between a feature being “active” vs. “supported” is not clear. The proposed resolution would change the word “Active” to “Support” in several locations and update the MIB to provide the ability for the SME to determine if the feature is implemented. TGbh had not previously found value in having the ability to indicate the feature was implemented but not operating. This comes to the question of whether two bits (supported/implemented) are needed, or one bit is needed (active). In order to assist Stacey with determining the way forward, a straw poll was run, asking, “Do you support the editing instructions in [11-24/919r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0919-02-00bh-cr-on-activated-vs-supported.docx) for changing the name of the field from Device ID Active to Device ID Support (and do the same for IRM)?” The result was 8/4/2 (Y/N/A). Based on those results, Stacey will update his document and bring it back for a motion. Hamilton asked that those in favor also attend REVme meetings because they are working on removing such language from the baseline.

1. **Current comment status**

Hamilton displayed the current comment tracking spreadsheet ([11-24/0883r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-03-00bh-p802-11bh-initial-sa-comments.xlsx)). Of 209 comments, only 16 have been agreed upon. However, 89 editorial comments will be handled by Carol Ansley, the document’s technical editor. Attendees are asked to look over Hamilton’s personal spreadsheet ([11-24/0884r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0884-00-00bh-p802-11bh-initial-sa-comments-personal-comments.xlsx)) for items that are marked as easily acceptable. That would leave around ~25 more difficult comments to deal with during the June ad hoc session and potentially on teleconferences outside of that.

1. **CIDS for IRM**

Graham Smith (SRT) continued going through comment resolutions for IRM-related comments in [11-24/0916r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0916-00-00bh-cids-on-irm.docx). He returned to CID 3085, which was under discussion when time ran out. The commenter’s requested resolution asks for use of Administratively Assigned local identifiers, while the currently proposed resolution suggests use of the locally administered address space. Choosing the later will set us up for clash with the IEEE RAC (Registration Authority Committee), but it is in alignment with the IEEE 802.11 baseline. To help the group in making a choice between the options, a straw poll was run asking, “Which direction should TGbh take, for CID 3085, for IRM addresses?” The options are “locally administered address space”, “Administratively Assigned local identifiers space”, and “don’t care/don’t know”. The result was 7/5/4.

**Meeting recessed at 10:01 a.m. CEST.**

**Meeting May 16th, 2024, 1:30 p.m. to 3:30 p.m. CEST**

**Chair: Mark Hamilton (Ruckus/CommScope)**

**Vice Chair: Peter Yee (NSA-CSD/AKAYLA)**

**Vice Chair: Stephen Orr (Cisco)**

**Secretary: Jay Yang, Peter Yee**

**Editor: Carol Ansley (Cox Communications)**

**The mixed-mode meeting was called to order by the Chair at 1:31 p.m. CEST.**

Agenda slide deck [11-24/0662r10](https://mentor.ieee.org/802.11/dcn/24/11-24-0662-10-00bh-agenda-tgbh-2024-may-session.pptx)

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 15)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + May session meetings: Monday, 19:30-21:30; Tuesday, 8:00-10:00 and 13:30-15:30; Wednesday, 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r43](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-43-00bh-tgbh-motions-list.pptx)
* **Motions (see Motions deck, Motions 39, 40, 41)**
* **Ad-hoc meeting planning:** [**11-24/0929r0**](https://mentor.ieee.org/802.11/dcn/24/11-24-0929-00-00bh-invitation-letter-for-june-tgbh-adhoc-sunnyvale.docx)
* **Teleconference plan (next slide)**
* **Planning for July (following slide)**
  + Comment Resolution
  + Comment resolution document: [11-24/0883r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-03-00bh-p802-11bh-initial-sa-comments.xlsx)

1. **Motions**

Motion #39 (see [11-22/0651r43](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-43-00bh-tgbh-motions-list.pptx)) was moved by Jouni Malinen (Qualcomm) and seconded by Jay Yang (ZTE). It reads, “Approve the resolutions to CIDs, per the resolutions recorded in [11-24/0883r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0883-03-00bh-p802-11bh-initial-sa-comments.xlsx) marked “Ready for motion” in the Notes column (16 CIDs), and incorporate the text changes into the latest TGbh draft.” The motion was carried with unanimous consent.

Text for motion #40 was presented and wordsmithed. After rewording, it reads, “Agree to the resolution of CID 3133 in the direction described in [11-24/0068r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-03-00bh-devid-in-assoc.docx) (final review, and potentially small technical clean-up, still TBD, and direct the author to continue cleaning up the document.” It was noted that a straw poll on this topic had a result of 8/10/6. Some felt that the motion was unnecessary despite the comment resolution’s author’s desire for stronger direction from the task group. No one was willing to make the motion, so it is not considered having reached the floor.

Motion #41 reading “Request WG approval of TGbh (as CRC) mixed-mode ad hoc meeting:

* June 18-20, for resolution of initial SA ballot comments, and start SA first recirc on a D5.0
* CommScope, Sunnyvale, CA, USA”

It was noted that this will clash with an IEEE Board of Governors meeting. Jon Rosdahl (Qualcomm) made the motion, which was seconded by Jouni Malinen (Qualcomm). Malinen asked that a specific time slot or slots for motions be allocated since he will not travel to the session and would prefer to have a known time that he can be present virtually to take part in voting. The motion was approved on a vote of 14/0/10 (Y/N/A).

1. **Letter of invitation and planning**

Hamilton presented [11-24/929r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0929-00-00bh-invitation-letter-for-june-tgbh-adhoc-sunnyvale.docx), which includes a means to request a letter of invitation to the meeting for those who need such an instrument in order to obtain a visa. It further includes details of and logistics for the meeting.

1. **Teleconferences**

Given the rate of progress, teleconferences on top of the June ad hoc meeting are likely needed. Hamilton suggests May 28th and June 4th for initial SA ballot comment resolutions and July 9 to review SA recirculation ballot comment resolution.

1. **July session planning**

The goal for July is either WG approval to submit the specification to RevCom or for one more recirculation and conditional approval to submit the specification to RevCom after that.

1. **CR for SA Comments in subclause 12.2.12.1**

Jay Yang (ZTE) displayed the updated [11-24/0885r03](https://mentor.ieee.org/802.11/dcn/24/11-24-0885-03-00bh-cr-for-sa-comments-in-12-2-12-1.docx), returning to CID 3127. After discussion, the resolution was changed to read, “If a non-AP STA has been provided a device ID, then it may provide that device ID. When it provides the device ID, then it shall use the procedures described below.” CID 3128 makes a request to insert redundant text, so Yang recommends rejecting it. He skipped over CID 3131 since Okan Mutgan handled that one. CID 3133 is marked rejected based on the failure to move motion #40 today and the outcome of previous discussions and motions on this topic. Yang requested that CID 3134 be assigned to Mark Hamilton. CID 3145 asks for consistent description of the use of Device ID in PASN frames, whether it is an element or subelement. There is some inconsistency in the usage, but not in the location cited. Yang believes this really needs to be rectified elsewhere on the page at line 63, while the usage in line 27 does not require change. CID 3147 suggests a fix for a vague description of the passage of some amount of time. However, this text having been deleted earlier in the comment resolution process, the comment is moot. CID 3194 indicates that the commenter finds the text on page 37, line 44 to be confusing as to whether anything is encrypted. Yang suggests rejecting it, believing the text to be clear. Others disagree, although it was noted that the paragraph in question is not specific to PASN, despite its placement. The proposal for a PASN ID and the moving of the diagram and some set of text to a new annex may impact the resolution of this comment. It makes sense to leave this CID open for now until the group has clarity on the fallout of the other, related resolutions. And finally, for CID 3200, Yang asks that it be assigned to Hamilton. The updated presentation will be made available as [11-24/0885r04](https://mentor.ieee.org/802.11/dcn/24/11-24-0885-04-00bh-cr-for-sa-comments-in-12-2-12-1.docx).

1. **IRM CID resolutions**

Smith returned to CID 3085 in [11-24/0916r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0916-00-00bh-cids-on-irm.docx). Until he has put together a presentation on the implications of 44 bits vs. 46 bits of addressing for IRMs, it makes sense to defer the resolution of this CID. In any case, the wording for “locally administered address space”, which comes from REVme, is not quite right. The correct term is “local MAC address”. With a bit of wordsmithing, the group arrived at an acceptable, revised resolution for CID 3085. Smith suggests accepting 3024. Given that the commenter provides two possible resolutions (one of which is preferred), the resolution is “revised” with the commenter’s preferred choice selected. CID 3086 makes a request to point to the limitations on an IRM as a MAC address. While Smith isn’t in favor of doing this, it was pointed out that this a comment from the IEEE RAC and the rejection should explain where the limitation is to be found. It was noted that CID 3071 refers to baseline text, not anything that’s currently in the IEEE 802.11bh draft. However, the proposed change appears reasonable and will be accepted. CID 3078 is accepted in slightly revised form (“the TA” instead of “a TA”). CID 3097 resolution is revised. CID 3096 is rejected because the group made the behavior in question optional, not mandatory as the commenter desires. CID 3083 attempts to clear up confusion over the meaning of “next” at page 34, line 26. The commenter wants to insert “next” in front of each item to which it applies explicitly. Smith suggests accepting the change as given. CID 3073 is deferred as part of a larger topic. CID 3094 is rejected with the commenter’s agreement because “might” is the correct word in a note. There wasn’t enough time to finish up CID 3081, which will be revisited.

**The meeting was adjourned at 3:32 p.m. CEST.**