Minutes IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| IEEE 802.11 TGbh Interim Meeting Minutes, January 14-19, 2024  Randomized and Changing MAC addresses (RCM) | | | | |
| Date: 2024-01-18 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Peter Yee | NSA-CSD | Mountain View, CA, US |  | [peter@akayla.com](mailto:peter@akayla.com) |

Abstract

This document contains the minutes of the IEEE 802.11bh interim meeting of January 14-19, 2024.

Note: Highlighted text are action items.

Q- proceeds a question asked at the meeting

A- proceeds an answer

C- proceeds a comment

**Meeting January 15th, 2024, 7:30 p.m. to 9:30 p.m. EST**

**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 7:33 p.m. EST.**

Agenda slide deck [11-23/2183r02](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-02-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Interim meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Approve November Plenary and teleconference minutes (next slide)
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r32](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-32-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: <https://mentor.ieee.org/802.11/dcn/24/11-24-0040-04-00bh-ieee-802-11bh-lb282-comments.xlsx>
  + Comment resolution queue (slide 19)
    - Editorials – any issues? (Ansley)
    - Discussion on non-AP MLD device identification (individuals interested in working on this via email, for submission/ballot comment in TGbe?): [11-23/2190r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2190-00-00bh-the-need-for-802-11be-non-ap-mld-identfication.pptx) (Yang)
    - Probability of IRM duplicates: [11-23/2148r0](https://mentor.ieee.org/802.11/dcn/23/11-23-2148-00-00bh-probability-of-irm-duplicates.pptx) (Smith)
    - Other, from the queue…

The agenda was approved with unanimous consent.

1. **Approval of Minutes**

The minutes of the November plenary session ([11-23/2068r00](https://mentor.ieee.org/802.11/dcn/23/11-23-2068-00-00bh-minutes-tgbh-plenary-meeting-november-2023.docx)) and the following teleconference of Jan. 9 ([11-24/0032r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0032-00-00bh-802-11bh-telecon-minutes-january-9-2024.docx)) were approved by unanimous consent.

1. **Timeline Review**

The current timeline shows a recirculation letter ballot (for a Draft 3.0) to be initiated coming out of this meeting. The hope remains to wrap up all approvals by September 2024.

1. **Motions record**

The motions for the task group are recorded in [11-22/0651r32](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-32-00bh-tgbh-motions-list.pptx).

1. **Editorial comments**

The comments received on the initial recirculation letter ballot and their current state are found in [11-24/0040r04](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-04-00bh-ieee-802-11bh-lb282-comments.xlsx). All comments have been assigned. The editorial comments are assigned to Carol Ansley, as the task group’s technical editor. She has already triaged the easy “accepts” and she is now undertaking a second pass. Some comments cluster on a small set of sentences, which she will document so that the group can see how she’s picking and choose from the clashing comments. The task group will be asked to review that document offline.

1. **Discussion on non-AP MLD device identification**

Jay Yang (ZTE) wants to revisit the topic of MLO support ([11-23/2190r00](https://mentor.ieee.org/802.11/dcn/23/11-23-2190-00-00bh-the-need-for-802-11be-non-ap-mld-identfication.pptx)). IEEE 802.11bh is part of IEEE 802.11be’s baseline, so this task group is not responsible for accommodating MLO in IEEE 802.11bh. On the other hand, IEEE 802.11be already has a lot of work to do and will need help from IEEE 802.11bh experts to make the requisite changes in IEEE 802.11be to support RCM with MLO. Mark Hamilton asked those interested in this topic to look at Yang’s presentation offline and comment by email.

1. **Probability of IRM duplicates**

Graham Smith will discuss this topic later in the agenda, but he’s asking for it to be deferred for now. The task group is requested to look at it offline prior to its presentation.

1. **CIDs 243, 239, 242**

Dan Harkins offered [11-24/0068r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx) in a split presentation. Here, he’s covering CIDSs 243, 239, and 242 from the larger set resolved in the document. The proposal here is to add the device ID to Association frames, even for non-FILS cases. Since those frames do not have protection, he further proposes to incorporate the Annex AD opaque device ID mechanism into the body of the specification and make it normative. Device ID remains optional. The desire is to make device ID more useful by making it available earlier in the connection than only in the 4-way handshake. It was noted that device ID can also be used (and generated) by third parties for identity purposes and that use shouldn’t be jeopardized by moving it to the Association frames and making the use of the Annex AD mechanism mandatory. In the proposal, APs should not need to synchronize the opaque device ID amongst themselves. It was noted that if the association process fails to complete, the device ID has to be reused for the next attempt. This would make device ID cause reuse of the identifier as IRM does when the association fails. It was noted that not having this property could be seen as an advantage of the current way device ID works. There’s not obvious agreement to move forward with this proposal. Harkins would like to run a motion to see whether this proposal will be acceptable to the group. He first briefed some of the details of his proposal. Hamilton and Harkins crafted motion text that reads, “Approve resolution of CID 239, 243, and 242 with Revised: Incorporate the changes in 11-24/0068r1.” Harkins made the motion and Stuart Kerry (OK-Brit) seconded it. The vote on the motion was 8/19/12 (Yes/No/Abstain). The motion apparently failed (to be confirmed by the chair after verifying the voting status of those who voted yes or no). [Upon verification, the vote was determined to be 7/19/12.] This failure means that the other resolutions Harkins provides are not currently aligned with keeping Annex AD as optional, so he’ll have to revise them. But he requested to walk the group through those resolutions to ensure that the gist is correct.

1. **CIDs 187, 189, 188, 198, 191, 194, 195, 196**

Harkins went through the remaining CIDs in [11-24/0068r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx).

1. **Resolution to IRM CIDs on D2.0**

Graham Smith (SRT Wireless) offered proposed resolution to CIDs 66, 67, 200, 201, 279, 202, 280, 219, 109, 107, 35, 112, 113, 55, 56, 220, 79, 71, 206, 36, 228, 143, 146, 60, 76, 77, 147, 229, 76, 77, 145, 46, 150, 231, 151, 152, 153, 47, 245, 10, 246, 156, 51, 232, 148, 233, 159, 234, 207, 161, 166, 44, and 237, as found in [11-24/0048r03](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-03-00bh-resolutions-to-irm-cids-on-d2-0.docx). CIDs 66 and 67 request changing the term from “IRM” to “IRMA”. The proposed resolution is to reject the comments because the acronym is clearing defined. A straw poll reading, “Do you prefer to resolve CIDs 66 and 67 as Reject, Accept, or Abstain” showed a result of 13/9/9/41 (Reject/Accept/Abstain/No response). This indicates the general feeling is to reject the comments. Smith then addressed CIDS 200, 201, and 279, which all deal with the text on page 18, line 16. He proposes accepting CIDs 200 and 201 to clarify the grammar in the sentence, although these need small revisions to be correct. Smith would also use a revised version of the resolution proposed in CID 279, which as written introduces a slightly incorrect term “Identifiable Random Medium Access Address”.

**Meeting recessed at 9:30 p.m.**

**Meeting January 16th, 2024, 8:00 a.m. to 10:00 a.m. EST**

**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 8:03 a.m. EST.**

Agenda slide deck [11-23/2183r03](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-03-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Plenary meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r33](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-33-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0040r6](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-06-00bh-ieee-802-11bh-lb282-comments.xlsx)
  + Comment resolution queue (slide 19)
    - CIDs 243, 239, 242: [11-24/0068r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx) (Harkins) – revisit and disposition (failed motion)
    - CIDs 187, 189, 188, 198, 191, 194, 195, 196: [11-24/0068r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx)(Harkins) – review updated version after editing
    - CIDs 210, 256, 211, 208, 209, 235, 164, and 165: [11-24/0044r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-03-00bh-cr-for-kek-from-pasn.docx) (Huang)
      * Alternative for CIDs 208, 208: [11-24/0118r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0118-01-00bh-lb282-cr-for-cid208.docx) (Yang)
    - CIDs 74, 65: [11-24/0059r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0059-00-00bh-lb282-cr-for-misc-cids.docx) (Yang)
    - CIDs 92, 4, 100, 24, 203, 217, 18, 97, 249, 101, 103, 105, 110: [11-24/0053r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-00-00bh-lb282-cr-for-cids-in-subclause-9-4.docx) (Yang)
    - CIDs 282, 72, 121, 123, 238, 124, 73, 37, 240, 126, 40, 128, 129, 226, 50, 41, 130, 132, 42, 59, 227, 255, 142, 140, 169, 177, 134: [11-24/0049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx) (Yang)
    - Continue [11-24/0048r4](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-04-00bh-resolutions-to-irm-cids-on-d2-0.docx) (Smith): CIDs 202, 280, 219, 109, 107, 35, 112, 113, 55, 56, 220, 79, 71, 206, 36, 145, 228, 143, 146, 60, 76, 77, 147, 229, 46, 150, 231, 151, 152, 153, 47, 245, 10, 245, 246, 156, 51, 232, 148, 233, 159, 234, 207, 161, 166, 44, 237

The amended agenda was approved unanimous consent.

1. **Timeline reminder**

We want to get to a recirculation ballot coming out of this meeting, so everyone was reminded to be concise and to speak quickly.

1. **Comment resolution for KEK from PASN**

Po-Kai Huang (Intel) offered [11-24/0044r03](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-03-00bh-cr-for-kek-from-pasn.docx) to resolve CIDs 210, 256, 211, 208, 209, 235, 164, and 165. This is a revision of a previous presentation, incorporating suggestions from the teleconference. Huang walked through the differences from the previous airing of these resolutions. The proposed resolution for CID 210 appears uncontentious. CID 208 seems to ensure the length of the PTK is correct, as otherwise the 4-way handshake will fail. This is done by using a dot11KEKPASNActivated MIB variable in the logic flow. Not everyone is on board with this signaling mechanism. It was noted that making Annex AD normative would also obviate this mechanism.

1. **CR for CID 208**

Jay Yang proposed an alternative resolution for CID 208 (and 209) as shown in [11-24/0118r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0118-01-00bh-lb282-cr-for-cid208.docx). It doesn’t use Huang’s additional flag. Huang’s proposal is more aimed at future scalability by not needing to make so many complicated inferences, while Yang’s is straightforward for the present state of affairs. There were opinions offered for both approaches, with some not caring either way.

A straw poll reading, “Do you prefer the approach to CIDs 208 and 209 in 11-24/0044 (Po-Kai) or 11-24/0118 (Jay)?” was run. The result was 12 for 11-24/0044, 2 for 11-24/0118, and 10 having no preference or not sure.

1. **CR for CIDs in subclause 3.2**

Yang presented resolutions in CIDs 74 and 65 in [11-24/0059r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0059-00-00bh-lb282-cr-for-misc-cids.docx), which is mistitled as affecting subclause 9.4. CID 74 raises a concern over too many fields that are similarly named with Device Identification in them. CID 65 asks for clarification of the term “non-AP” and description of “to identify itself to a known network”, both on page 17, line 8. CID 74 is to be rejected as the task group does not find the terms confusing, while the proposed resolution for CID 65 is revised slightly for even greater clarity.

1. **CR for CIDs in subclause 9.4**

Yang then presented [11-24/0053r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-00-00bh-lb282-cr-for-cids-in-subclause-9-4.docx), covering CIDs 92, 100, 4, 24, 203, 217, 97, 18, 249 101, 103, 105, and 110, all in subclause 9.4. CID 92 asks to make the Device ID element extensible in Table 9-130, which Yang agrees with. This necessitates a change in Figure 9-1054a to provide a Device ID length field as well. The field will need some descriptive text for the length field, which Yang has not yet written. The participants would prefer to reject CID 92 as it’s unclear that the extensibility is really needed, particularly with the cost of an extra length octet in the protocol. CID 100 would move text from page 25, line 31 (subclause 9.4.2.313, Measurement ID element) to clause 11. Yang offers a revision to that request, which moves the text and rewrites it to fit in with subclause 11.10.9.1 (Beacon report). The group extensively wordsmithed the replacement text. Yang suggests accepting CID 217, which was agreeable to the group. CIDs 97, 18, and CID 249 object to normative language in a note. Yang proposes to rectify this by making it normative text and rewriting it. These resolutions will need further thought.

**Meeting recessed at 10:02 a.m.**

**Meeting January 16th, 2024, 1:30 p.m. to 3:30 p.m. EST**

**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 1:33 p.m. EST.**

Agenda slide deck [11-23/2183r04](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-04-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Plenary meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r31](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-31-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0040r7](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-07-00bh-ieee-802-11bh-lb282-comments.xlsx)
  + Comment resolution queue (slide 19): NOTE: Need to pick up the pace
    - CIDs 210, 256, 211, 208, 209, 235, 164, and 165: [11-24/0044r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-03-00bh-cr-for-kek-from-pasn.docx) (Huang) – Continue with 211 and 235
    - CIDs 243, 239, 242: [11-24/0068r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx) (Harkins) – Revisit, in light of failed motion on Monday
    - CIDs 187, 189, 188, 198, 191, 194, 195, 196: [11-24/0068r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx) (Harkins) – Revisit w/editing
    - CIDs 92, 4, 100, 24, 203, 217, 18, 97, 249, 101, 103, 105, 110: [11-24/0053r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-00-00bh-lb282-cr-for-cids-in-subclause-9-4.docx) (Yang) – To be continued
    - CIDs 282, 72, 121, 123, 238, 124, 73, 37, 240, 126, 40, 128, 129, 226, 50, 41, 130, 132, 42, 59, 227, 255, 142, 140, 169, 177, 134: [11-24/0049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx) (Yang)
    - CIDs 66, 67, 200, 201, 279, 202, 280, 219, 109, 107, 35, 112, 113, 55, 56, 220, 79, 71, 206, 36, 145, 228, 143, 146, 60, 76, 77, 147, 229, 46, 150, 231, 151, 152, 153, 47, 245, 10, 245, 246, 156, 51, 283, 232, 148, 233, 159, 234, 207, 161, 166, 44, 237, 108, 163, 144: [11-24/0048r7](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-07-00bh-resolutions-to-irm-cids-on-d2-0.docx) (Smith) – To be continued
    - CIDs 64, 83, 86, 88, 89, 93, 1, 111, 116, 224, 223, 43, 241, 131, 230, 171, 284, 2, 133: [11-24/0124r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0124-01-00bh-lb282-general-arch-and-misc-cid-resolutions.docx) (Hamilton)
    - CID 225, 255: [11-24/0135r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0135-00-00bh-lb282-cr-for-cid225-and-cid255.docx) (Mutgan)

The agenda was approved with unanimous consent.

1. **Editorial CIDs**

Carol Ansley presented the state of editorial CID resolution ([11-24/0145r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0145-00-00bh-editorial-comment-resolution-discussion.docx) and [11-24/0144r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-00-00bh-editorial-comment-resolution-spreadsheet.xlsx)). The first of those two documents is a discussion of comments on subclause 9.4.2.19.7 (CIDs 5, 30, 31, 32, 95, 99, 214, 215, 216, 257, and 258). Those CIDs provide subtly different changes to the text. This necessitates a decision on how the group would like to adjudicate the clash. She has provided her preferred compromise text. There were no objections to the compromise text. Ansley added a final text block to the document to show how the revised text fits in. (See [11-24/0145r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0145-01-00bh-editorial-comment-resolution-discussion.docx).) Document [11-24/0144r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-00-00bh-editorial-comment-resolution-spreadsheet.xlsx) summarizing the editorial comments and their resolutions. This document will be revised to [11-24/0144r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-01-00bh-editorial-comment-resolution-spreadsheet.xlsx).

1. **Resolution of Annex AD Comments from LB282**

Dan Harkins presented [11-24/0147r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0147-00-00bh-annex-ad-comments.docx), which address the comments that apply to Annex AD, but with Annex AD remaining as an annex and optional. For CIDs 187 and 191, he proposes rejection, which seems agreeable to the group. CIDs 188 and 189 want to clarify the text starting “It imposes minimal overhead…” Harkins agrees that the wording could be improved, and he provided text to which the group did not disagree. CIDs 194 and 196 can be addressed by removing a sentence that was causing confusion over the production of the authentication tag. Mention of the existence of the authenticating tag was irrelevant. CID 198 is resolved by providing a calculation for the maximum of amount of padding. There were no objections to the given resolutions.

1. **Resolution to IRM CIDs on D2.0**

Smith continued his presentation of IRM comment resolutions as found in [11-24/0048r07](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-07-00bh-resolutions-to-irm-cids-on-d2-0.docx), starting at CIDs 202 and 280, which request clarification of third parties and defensive actions against those parties. With minor wordsmithing, Smith’s revisions were accepted. CID 219 asks that Table 9-414a not attribute recognition to the AP, which is fixed by deleting “by the AP” in that table and similarly in Table 9-414b. CID 109 is resolved by deleting one unnecessary sentence on page 26 at line 50. CID 107 wants to refer to an AP or a PCP, where the existing text only covers an AP. A PCP (personal basic service set (PBSS) control point) is for use in DMG (directional multi-gigabit) service. Smith suggests saying that device ID and IRM are not used in PBSSs, meaning that there’s no need to PCP to text, which would have had to be done in most situations where the term “AP” appears. CID 35 rightly points out that the IRM field is not reserved when sent from the AP to a non-AP STA but is actually not present. This seems right. CID 108 is similarly resolved as CID 35 rather than having two elements as the commenter suggests. CIDs 112 and 113 question the sentence on page 28, lines 17 and 18. Smith provides a rewrite that makes it clear that when using authentication, it does come into play. He further drops “new” before “IRM”. This text required additional refinement and the actual location of this text was questioned. The text is also subject to CID 7, which is editorial, so some work will be necessary to harmonize the resolutions. CIDs 55 and 56 are Smith’s and he now believes that they can be rejected. CID 220 wants clarification of contradictory recognition states during use of both IRM and device ID. Smith would reject this comment as they two schemes are independent and used differently. The STA isn’t expected to be confused by disparate responses. CID 79 is accepted because it clarifies what the difference is between use of the IRM and the MAC address (TA). CIDs 71 and 206 asks to clarify the wording on page 30, line 23. Smith combines the commenters’ suggested resolutions into a revised resolution that remains a little awkward and lengthy. There were no objections to that. CID 36 fixes a sentence that uses “respectively” but then gets the ordering wrong. With some work, the resolution was improved. CID 228 notes that IRM operation is not advertised by the AP owing to a missing paragraph that aligns with similar text for device ID. The solution is to fill in the missing text. CID 143 asks for “in an ESS” to be deleted at page 32, line 62, which seems reasonable. Additional discussion from the floor suggested changing “to any AP” to “to an AP” or similar. Upon further discussion, it was decided that the existing text was correct, and the comment should be rejected.

**Meeting recessed at 3:30 p.m.**

**Meeting January 17th, 2024, 10:30 a.m. to 12:30 p.m. EST**

**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 10:32 a.m. EST.**

Agenda slide deck [11-23/2183r06](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-06-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Plenary meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r31](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-31-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0040r8](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-08-00bh-ieee-802-11bh-lb282-comments.xlsx)
  + Comment resolution queue (slide 19): NOTE: Need to pick up the pace (slide 21)
    - Editorial: Discuss CID 138. Note, TG to comment/confirm on Thurs AM1 on the rest in [11-24/0144r2](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-02-00bh-editorial-comment-resolution-spreadsheet.xlsx)
    - CIDs 210, 256, 211, 208, 209, 235, 164, and 165: [11-24/0044r3](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-03-00bh-cr-for-kek-from-pasn.docx) (Huang) – Continue with 211 and 235 (\*\*)
    - CIDs 243, 239, 242: [11-24/0068r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0068-01-00bh-devid-in-assoc.docx) – Review proposed rejections in 11-24/0040r8
    - CIDs 187, 189, 188, 198, 191, 194, 195, 196: [11-24/0147r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0147-00-00bh-annex-ad-comments.docx) (Harkins) – 196 is still needed (\*\*)
    - CIDs 92, 4, 100, 24, 203, 217, 18, 97, 249, 101, 103, 105, 110: [11-24/0053r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-00-00bh-lb282-cr-for-cids-in-subclause-9-4.docx) (Yang) – To be continued
    - CIDs 282, 72, 121, 123, 238, 124, 73, 37, 240, 126, 40, 128, 129, 226, 50, 41, 130, 132, 42, 59, 227, 255, 142, 140, 169, 177, 134: [11-24/0049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx) (Yang)
    - CIDs 66, 67, 200, 201, 279, 202, 280, 219, 109, 107, 35, 108, 112, 113, 55, 56, 220, 79, 71, 206, 36, 228, 143, 146, 60, 76, 77, 147, 229, 145, 46, 150, 231, 151, 152, 153, 47, 245, 10, 245, 246, 156, 51, 283, 232, 148, 233, 159, 234, 207, 161, 166, 44, 237, 108, 163, 144: [11-24/0048r8](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-08-00bh-resolutions-to-irm-cids-on-d2-0.docx) (Smith) – To be continued, starting on CID 143
    - CIDs 64, 83, 86, 88, 89, 93, 1, 111, 116, 224, 223, 43, 241, 131, 230, 171, 284, 2, 133: [11-24/0124r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0124-01-00bh-lb282-general-arch-and-misc-cid-resolutions.docx) (Hamilton)
    - CID 225, 255: [11-24/0135r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0135-00-00bh-lb282-cr-for-cid225-and-cid255.docx) (Mutgan)

The agenda was approved with unanimous consent.

1. **Timeline reminder**

To focus the group, all are asked to remember that a recirculation ballot on Draft 3.0 is the target for this meeting. The pace of resolution needs to be quickened this week in order to hit that target.

1. **Alternate handling for CIDs 239, 242, and 243**

The current state of the comment resolution is captured in [11-24/0040r08](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-08-00bh-ieee-802-11bh-lb282-comments.xlsx).

Given the failure to pass the motion in favor of moving device ID to Associate frames and making Annex AD normative, these three CIDs need to be rejected instead. The reason for the rejection will be that the group did not agree to the proposal. No one objected to this action. By request, these 3 CIDs will be subject to a confirmation motion distinct from the omnibus motion generally used to agree upon the resolutions at the end of the meeting.

1. **Editorial Comment Status**

Carol Ansley displayed the current status of the editorial comments ([11-24/0144r04](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-04-00bh-editorial-comment-resolution-spreadsheet.xlsx)). In particular, there was a focus on some comments that had raised extra concerns. CID 138 says that hyphens shouldn’t be used. While that may not hold for figures, it does cause a clash where the hyphens are not allowed in the text. The comment will be accepted, but work will be needed to rectify the figure. CID 91 is dependent on what value ANA assigns to IEEE 802.11bh. If it is 33, as expected, then no other changes ought to be needed. Otherwise, a little more work is needed to either adjust or remove the row for the reserved block. CID 179 removes some mistakenly included underlining. CID 160 asks whether “ANQP response frame” should be “ANQP Response frame” or “ANQP response”. Stephen McCann (Huawei) was suggested as the relevant expert for ANQP. “ANQP request” seems like the simplest solution, although it is then a technical change and not an editorial one. The baseline itself is not completely consistent, so it’s difficult to align with that. This CID will be out for review overnight. CIDs 172 and 173 deal with the different parts of the 4-way handshake and how TGme’s work may clash with what’s in IEEE 802.11bh draft. It doesn’t appear that IEEE 802.11me Draft 4.1 is actually clashing with our draft. These comments will be rejected as there’s nothing in IEEE 802.11me at the moment that we need to align with. CID 21 and CID 20 differ in whether “non-AP” needs to appear before “STA”, since one deals with IRM and the other device ID. This looks like a technical change, not an editorial one, so a separate comment should be filed during a future ballot if that point needs to be made.

1. **Resolution of Annex AD Comments from LB282**

[Dan Harkins has requested that CID 211 be pulled from the omnibus motion as well.] Harkins presented the updated [11-24/0147r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0147-01-00bh-annex-ad-comments.docx). CID 196 (erroneously listed as CID 195 previously) fixes the comparison between the received opaque ID and the current one associated with the identifier.

1. **Resolutions to IRM CIDs on D2.0**

Graham Smith continued comment resolutions in the revised [11-24/0048r10](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-10-00bh-resolutions-to-irm-cids-on-d2-0.docx). For CID 35, it was already agreed the IRM field is not present, not reserved. That being the case, CID 108 also needs to say that the IRM Status is not present in similar cases. CID 143 wants certainty that all APs in the ESS have to have IRM activated. The non-AP STA has no way to know this, but it can know which APs it has received beacons or probe responses from are advertising support for IRM. The group extensively and laboriously discussed Smith’s suggested text for the resolution before agreeing to text to be found in the next revision of Smith’s presentation. CID 146 indicates that an IRM should be described as a MAC address, not simply a 48-bit address. This seems reasonable. CID 60 asks to delete text reading “such that a non-AP STA cannot be identified by a third party from the TA it is using” in subclause 12.2.12.2. Offline input on this CID will be sent to Smith for further consideration. CID 76, 77, 147, and 229 all deal with the text on page 33, line 23. Smith would reject CID 76 for being confused, while he believes CID 77 is essentially correct that a non-AP STA may provide a new IRM to the AP when it associates. CID 147 wants to drop “RSN” from “RSN Association”. Smith disagrees with that, as the RSN part is to show the IRM is provided securely. CID 229 would also be rejected.

**The meeting was recessed at 12:31 p.m.**

**Meeting January 18th, 2024, 8:00 a.m. to 10:00 a.m. EST**

**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 8:05 a.m. EST.**

Agenda slide deck [11-23/2183r07](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-07-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Plenary meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r33](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-33-00bh-tgbh-motions-list.pptx)
* **Comment Resolution**
  + Comment resolution document: [11-24/0040r9](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-09-00bh-ieee-802-11bh-lb282-comments.xlsx)
  + Comment resolution queue (slide 19): NOTE: Really need to pick up the pace (slide 21)
    - Any concerns with the CIDs in [11-24/0144r5](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-05-00bh-editorial-comment-resolution-spreadsheet.xlsx)? (If not, they will be updated in the master comment sheet (at above link) and marked Ready for Motion.)
    - CIDs 236, 181, 48, 183, and 184: [11-24/0162r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0162-00-00bh-resolutions-to-cids-in-d2-0.docx) (Orr)
    - CIDs 210, 256, 211, 208, 209, 235, 164, and 165: [11-24/0044r6](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-06-00bh-cr-for-kek-from-pasn.docx) (Huang) – Continue with 211 and 235 (\*\*)
    - CIDs 92, 4, 100, 24, 203, 217, 18, 97, 249, 101, 103, 105, 110: [11-24/0053r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-01-00bh-lb282-cr-for-cids-in-subclause-9-4.docx) (Yang) – To be continued
    - CIDs 282, 72, 121, 123, 238, 124, 73, 37, 240, 126, 40, 128, 129, 226, 50, 41, 130, 132, 42, 59, 227, 255, 142, 140, 169, 177, 134: [11-24/0049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx) (Yang)
    - CIDs 66, 67, 200, 201, 279, 202, 280, 219, 109, 107, 35, 108, 112, 113, 55, 56, 220, 79, 71, 206, 36, 228, 143, 146, 60, 76, 77, 147, 229, 145, 46, 150, 231, 151, 152, 153, 47, 245, 10, 245, 246, 156, 51, 283, 232, 148, 233, 159, 234, 207, 161, 166, 44, 237, 108, 163, 144 (and 62?): [11-24/0048r11](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-11-00bh-resolutions-to-irm-cids-on-d2-0.docx) (Smith) – To be continued, starting on CID 143
    - CIDs 64, 83, 86, 88, 89, 93, 1, 111, 116, 224, 223, 43, 241, 131, 230, 171, 284, 2, 133: [11-24/0124r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0124-01-00bh-lb282-general-arch-and-misc-cid-resolutions.docx) (Hamilton)
    - CID 225, 255: [11-24/0135r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0135-00-00bh-lb282-cr-for-cid225-and-cid255.docx) (Mutgan)

The current agenda was approved by unanimous consent.

1. **Editorial Comments**

[11-24/0144r05](https://mentor.ieee.org/802.11/dcn/24/11-24-0144-05-00bh-editorial-comment-resolution-spreadsheet.xlsx) contains the current resolutions for the editorial comments. Unless there are objections to these resolutions, they will be incorporated into the master comment sheet ([11-24/0040r09](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-09-00bh-ieee-802-11bh-lb282-comments.xlsx)). Some thoughts on the editorial comments were sent to the reflector overnight, so those need to be reviewed by the editor. Comment 9’s resolution is revised to read, “CID 9: Revised. The resolution does not include the second sentence as 'may' is a normative word. Update the text as follows: Each time the non-AP STA associates with an AP in an ESS, it may provide a new IRM to the AP during association.”. This resolution is now ready for motion. For CID 214, a spurious “to” is to be removed from the resolution so that it now reads, “When included in a Beacon request, it indicates the requesting STA asks the responding STA include an IRM in RA field in the Probe Request frame.”

1. **CID resolutions on D2.0**

Stephen Orr presented [11-24/0162r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0162-01-00bh-resolutions-to-cids-in-d2-0.docx), which covers CIDs 48,181,183,184, and 236. He proposes accepting the commenter’s suggestions for resolving CIDs 48, 181, and 183. CID 184 covers an apparent typo in our text (and REVme Draft 4.1), where there is a 3 followed by a space followed by 0 (“3 0”). The question is whether this is something to be fixed in TGbh or TGme. The resolution, regardless of where it occurs, is to delete the spurious “3” and the following space. It appears that this is text replicated from REVme Draft 4.1 but copied into a new insertion in IEEE 802.11bh. Thus, both drafts need to be fixed. The proposed resolution for CID 236 is rejection, with which the commenter agrees. The revised resolutions are found in [11-24/0162r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0162-02-00bh-resolutions-to-cids-in-d2-0.docx).

1. **CR for KEK from PASN**

Jouni Malinen (Qualcomm) presented [11-24/0044r07](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-07-00bh-cr-for-kek-from-pasn.docx) on behalf of Po-Kai Huang (Intel). This round covers CIDs 211 and 235. Malinen walked through the extensive changes needed to resolve CID 211. A comment from a participant suggested the use of AES Key Wrap was not needed here over AES-SIV for key wrapping and therefore it might be preferable to just reject the comment. While there wasn’t consensus for an outright rejection, the resolution text was modified to replace “i.e.,” with “and” in the second paragraph that Huang adds to subclause 12.2.12.3. A straw poll reading “Do you support adding AES key wrapping as an option with PASN?” was run. A “yes” response means that all of the changes in the document labeled #211 are to be included. A “no” response means that only final paragraph on page 16 of the document is incorporated. The result was 14/3/3. The resolution to CID 211 will be to incorporate all of the changes marked #211. A request was made to pull this resolution from the omnibus. CID 235 is essentially resolved the same way as CID 211. It will also be pulled from the omnibus.

1. **Resolutions to IRM CIDs on D2.0**

Graham Smith continued comment resolution in [11-24/0048r11](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-11-00bh-resolutions-to-irm-cids-on-d2-0.docx), starting at CID 60. The proposed resolution seems acceptable to the group. For CIDs 76, 77, 147, and 229, which all cover the same text, CID 76 and 77 are accepted in revised form, while CIDs 147 and 229 are rejected. There were no objections to these resolutions. CID 145 is resolved by making the referenced note slightly different from similar text it follows. It now reads, “The criteria and mechanism to distribute IRMs throughout the ESS is out of scope for this standard.” A matching change is made to cover device ID. CID 46 is resolved in the same way as CID 145 as is CID 47. Basically, the resolution notes that how IRMs (or device IDs) are distributed throughout the ESS is out of scope for this standard. CID 150 will be changed to rejected rather than revised for the reason given in the second paragraph of the CID 150 discussion. CID 231’s proposed resolution is to be accepted. CID 151 is rejected as the group came up with the term “within the IEEE 802 LAN” after extensive debate. CID 152 is accepted. CID 153 is rejected because the word “may” is correct – IRM usage is not mandatory. CID 245 asks that a “may” be changed to a “shall” for APs sending a Duplicate IRM frame. An AP vendor noted that this would be done as a best effort, but “shall” was difficult to guarantee. “Should” would preferable. The CID 245 resolution replacement text now reads “... after association or authentication using PASN, the AP should send a Duplicate IRM frame ...”. CID 10 is resolved the same way. Smith’s recommendation for CID 246 is rejection, to which the group agreed. CID 156 is also to be rejected, but the reason for that rejection is changed to read, “Yes, this is deliberate. The IRM is not updated in reassociation. The support for IRM is contained in the reassociation and association request frames”. CIDs 51 and 283 are both resolved by pointing to the resolution for CID 145. CID 232 points out that the paragraph in question is missing the PASN case. Smith proposes accepting the offered resolution to add that case, to which the group agreed. CID 148 prefers the use of “Address 2” over “TA”. Smith suggests rejecting it as “TA” is well understood, although the baseline standard uses both terms, depending on what type of frame is being transmitted. The reason for the rejection is changed to “The address 2 field re 9.3.3.1 (11me D4.2) is the TA.” The group agreed with this. CID 233 is accepted. CIDs 159 and 234 are both accepted, although they word the resolution differently with the same end result. CID 207 is accepted. CID 161 is also accepted, noting that the text may have already been deleted elsewhere. CID 163’s reason is changed with an added note to the editor that “This note may have been deleted by another comment.” CID 166 is accepted in revised form that fixes a typo in the proposed resolution (“then” should be “the”). This was acceptable to the group. The resolution now reads, ‘At P34.31, edit as follows:

When using PASN authentication, the Device ID element shall be encrypted in PASN frame 2 (if present) and then the IRM element shall be encrypted in PASN frame 3 (if present)…”

Note to commentor – the sentence does say “and then IRM element shall be encrypted in PASN frame 3 (if present)”’.

CID 4 is accepted, and the group agrees with that. CID 237 has been passed to Okan Mutgan (Nokia) for resolution. CID 144 will be rejected for insufficient details (specific wording for that to be supplied by the chair). CID 62 is resolved by changing “RA” to “TA”. The group agreed that a random value makes a poor RA.

1. **LB282 CR for CID237**

The agenda was modified to allow Okan Mutgan to present [11-24/0172r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0172-00-00bh-lb282-cr-for-cid237.docx). CID 237 asks whether the IRM element should be added to the second PASN frame. The current draft doesn’t have this, so Mutgan proposes text to do so, although it is conditioned on Po-Kai Huang’s proposed resolutions, which have not yet been adopted. The resolution will be modified slightly in the next TGbh meeting slot.

**The meeting was recessed at 10:01 a.m.**

**Meeting January 18th, 2024, 1:30 p.m. to 3:30 p.m. EST**

**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 1:38 p.m. EST.**

Agenda slide deck [11-23/2183r08](https://mentor.ieee.org/802.11/dcn/23/11-23-2183-08-00bh-agenda-tgbh-2024-january-interim.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 11 and 12)

1. **Agenda:**

* **Attendance, noises/recording, meeting protocol**
* **Policies, duty to inform, participation rules**
* **Organization topics:**
  + January Plenary meetings (6): Monday, 19:30-21:30; Tuesday, 8:00-10:00; Tuesday, 13:30-15:30; Wednesday, 10:30-12:30; Thursday 8:00-10:00; Thursday 13:30-15:30
  + Timeline reminder (slide 18)
  + Motions record: [11-22/0651r31](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-31-00bh-tgbh-motions-list.pptx)
* **Comment Resolution (finalize):** [**11-24/0040r9**](https://mentor.ieee.org/802.11/dcn/24/11-24-0040-09-00bh-ieee-802-11bh-lb282-comments.xlsx)
  + - CIDs 92, 4, 100, 24, 203, 217, 18, 97, 249, 101, 103, 105, 110: [11-24/0053r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-01-00bh-lb282-cr-for-cids-in-subclause-9-4.docx) (Yang) – To be continued
    - CIDs 282, 72, 121, 123, 238, 124, 73, 37, 240, 126, 40, 128, 129, 226, 50, 41, 130, 132, 42, 59, 227, 255, 142, 140, 169, 177, 134: [11-24/0049r0](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx) (Yang)
    - CIDs 64, 83, 86, 88, 89, 93, 1, 111, 116, 224, 223, 43, 241, 131, 230, 171, 284, 2, 133: [11-24/0124r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0124-01-00bh-lb282-general-arch-and-misc-cid-resolutions.docx) (Hamilton)
    - CID 225, 255: [11-24/0135r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0135-01-00bh-lb282-cr-for-cid225-and-cid255.docx) (Mutgan)
    - CID 237: [11-24/0172r1](https://mentor.ieee.org/802.11/dcn/24/11-24-0172-01-00bh-lb282-cr-for-cid237.docx) (Mutgan)
* **Motion to approve LB282 resolutions (Motion #xx of motion deck)**
* **Motion for Recirculation Letter Ballot on D3.0 (Motion #xx)**
* **Motion to approve report to EC (Motion #xx)**
* **Motion for Conditional SA ballot (Motion #xx)**
* **Motion for PAR re-confirmation (Motion #xx)**
* **Teleconference and March planning**

The current agenda was approved by unanimous consent.

1. **CR for CIDs in subclause 9.4**

Jay Yang presented the updated [11-24/0053r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0053-01-00bh-lb282-cr-for-cids-in-subclause-9-4.docx). CID 97 changes a note to normative text. This was previously requested. CIDs 18 and 249 are the same resolution. CID 101 deletes text and was accepted. CID 103 is resolved the same as CID 107, which was previously agreed. CID 105 is rejected because device ID is already defined in subclause 3.2. CID 110 is resolved by adding a definition for Measurement ID to subclause 3.2. This definition was modified to read, “measurement identifier (ID): [measurement ID] a transient device ID that a network can provide to a non-access-point (non-AP) station (STA) to allow the non-AP STA to identify itself to another AP in the same network during a radio measurement procedure.” CID 6 is resolved by changing the Length field to 0. The same resolution applies to CID 98.

1. **CR for CIDs in subclause 12.2.12.1**

Yang then presented resolutions in [11-24/0049r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0049-00-00bh-lb282-cr-for-cids-in-subclause-12-2-12-1.docx). CID 282 is rejected, with the reason changed to “Answer:The general procedure is that AP/ESS allocates a device ID to the STA during the association. When the STA leaves the AP/ESS and come back and intends to be recognized as a returning STA by the ESS, the STA will provide the previously allocated device ID to the ESS in the next associating procedure.” CID 72 is also rejected. CID 121 is agreed in principle. The resolution text was revised to read that it is resolved the same as CID 143 in [11-24/0048r12](https://mentor.ieee.org/802.11/dcn/24/11-24-0048-12-00bh-resolutions-to-irm-cids-on-d2-0.docx). Yang proposed rejecting CID 123, but after discussion, it will be resolved by a revision changing “shall” to “should” in the existing text on page 31, line 1. (“A STA shall not send a frame containing a device ID element to any STA unless the receiving STA sets the Device ID Active field to 1 in the Extended RSN Capabilities field." becomes “A STA should not send a frame containing a device ID element to any STA unless the receiving STA sets the Device ID Active field to 1 in the Extended RSN Capabilities field.”) CID 238 is then resolved the same way instead of being a rejection. There were no objections to the modified resolutions to these two CIDs. CID 124 is rejected as the two paragraphs in question are not duplicates (one is capability, the other is element). CID 73 is accepted in revised form to make the action conditional on a non-AP STA having a device ID. (The “A” in the resolution should be “a”.) CID 37 is resolved by using the resolution for CID 240, which allows any STA to delete a device ID, not just a non-AP STA. The resolution was discussed but eventually agreed. Yang proposed accepting CID 126, but based on objections, it will be revised to change “sufficient time has passed” to “some time has passed”. This was agreed by the participants over one participant’s objection. The resolution for CID 40 is changed to insert “a” between “containing” and “device” in Yang’s proposed text. This was agreed by the group. CIDs 129 and 226 use the same resolution. CID 50 is actually covered by the resolution to CID 145, so Yang will point to that resolution instead of his proposed resolution. CID 41 is accepted a note to the editor is added pointing out the need to separate “theDevice” into two words. CID 130 has the same resolution as CID 41. CID 132 is accepted without objection. CID 42 is revised to use same resolution as CID 132 since it refers to the same text. CID 59 will be changed to “reject”, to which the commenter agreed. CID 227’s revised resolution was agreed to. CID 142 is rejected without sustained objection. CID 140 is a rejection as well. CID 169 is agreed in principle. CID 177 is transferred to Okan Mutgan. CID 134 is rejected without objection.

1. **LB282 General Arch and Misc CID resolutions**

Mark Hamilton offered resolutions in [11-24/0124r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0124-01-00bh-lb282-general-arch-and-misc-cid-resolutions.docx). For CID 64 offers replacement text. In that text, it was agreed that “Extended Service Set” would be all lowercase. CID 83’s resolution is changed to “the private (from third-parties) identification of a device”. CID 86 is rejected because the definition of network is the same as the one in the baseline, so it is not a new definition for IEEE 802.11bh. CID 88 and 89 refer to the same concept in different places in the document. CID 89 is rejected because this is during Probe Requests and is independent of FILS use. CID 88 is also rejected (the failure to pass motion #29 was cited). CID 93 is accepted. CID 1 is resolved by making the sentence in question a note along with an explicit reference to 12.2.12.1. The “may” in the sentence also needs to be changed to “might”, this being clause 9. The group agreed with this resolution. CID 111’s resolution is rejection, which the group agreed with. CID 116 is accepted to name the fields as done in the general format for Management frames. CID 224 is rejected because IEEE 802.11be is not in IEEE 802.11bh’s baseline. CID 223 is resolved the same as CIDs 40 and 128. CID 43 is rejected without objection. CID 241 deals with the same text. Hamilton offers clarifying changes to the draft, to which the group agreed. CID 131 wants a definition to “shared identity state”. This can be handled by making the “cached information” previously mentioned equivalent to “shared identity state.” The group found this resolution acceptable. CID 230 wants “support” changed to “activation” in one location. This turns out to be a larger issue, so the resolution provides a similar fix, in line with the baseline, for the several occurrences of “support” in the draft. This looks fine. CIDs 171 and 284 express confusion over the referenced note. It was noted there are other changes to Table 12-11 ([see 11-24/0044r08](https://mentor.ieee.org/802.11/dcn/24/11-24-0044-08-00bh-cr-for-kek-from-pasn.docx)), so the resolution to these two CIDs needs to be changed to align with that fact. The resolution now reads, “Revised. Make the changes shown in 11-24/0044r08, for CID 211”. This was agreed. CID 2 is revised with two new rows in table B.4.4.2.

By agreement, the meeting was extended 15 minutes.

1. **LB282 CR for CID237**

Okan Mutgan presented [11-24/0172r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0172-02-00bh-lb282-cr-for-cid237.docx), based on his earlier presentation. This covers CIDs 237 and 177. Where present, “a IRM” needs to be changed to “an IRM”, which the editor can handle. The group agreed to Mutgan’s proposed text.

1. **LB282 CR for CID225 and CID255**

Mutgan then offered [11-24/0135r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0135-01-00bh-lb282-cr-for-cid225-and-cid255.docx). It would involve moving Figure 12-0a to an informative annex along with the explanatory text. He then expands upon that single figure with other informative figures and text. There were concerns with the amount of new text that has been wholly reviewed, but on the other hand, putting this material in would allow wider comment. A straw poll was run to see how the group wanted to handle this matter. The text of the straw poll reads, “Do you support resolution of CIDs 225, 255, as in 11-24/0135r1?”. The result was 4/6/9 (Y/N/A). Thus, the CIDs will be rejected because “The TG could not reach consensus on a proposed change to accomplish the commenter's request. A straw poll was held, results were 4/6/9.”

Joe Levy moved to extend the meeting by 10 minutes. Peter Yee seconded the motion. There was no objection to this motion.

1. **More of** **LB282 General Arch and Misc CID resolutions**

CID 117 would be rejected, to which there were no objections. CID 135 is agreed in principle, which was agreeable. CID 3 will be rejected for insufficient details. The group agreed to this.

1. **Motion to approve LB282 resolutions**

Smith moved, “Approve the resolutions to CIDs, per the resolutions recorded in [11-24/0040r9](https://mentor.ieee.org/802.11/dcn/23/11-23-1152-30-00bh-ieee-802-11bh-lb274-comments.xlsx) marked “Ready for motion”, and incorporate the text changes into the latest TGbh draft:

And, the resolutions as shown in 11-24/144r5, 11-24/162r1, 11-24/44r8, 11-24/48r12, 11-24/172r3, 11-24/53r2, 11-24/49r1, 11-24/124r2, 11-24/135r2.” This motion was seconded by Yang. It was approved by unanimous consent.

**The meeting was adjourned at 3:49 p.m. EST.**