Minutes IEEE P802.11
Wireless LANs

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| IEEE 802.11 TGbh ad-hoc Minutes, June 18-20, 2024Randomized and Changing MAC addresses (RCM) |
| Date: 2024-06-25 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Jay Yang | ZTE |  |  | Yang.zhijie@zte.com.cn |
| Peter Yee | NSA-CSD/AKAYLA |  |  |  |

Abstract

This document contains the minutes of the IEEE 802.11bh ad-hoc meeting of June 18-20, 2024.

Note: Highlighted text are action items,the approved CIDs are marked with green color, others are marked with yellow color.

Q- proceeds a question asked at the meeting

A- proceeds an answer

C- proceeds a comment

**Meeting** **June 18th, 2024, 9:00 a.m. to 11:30 a.m. PT**

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

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

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

**Secretary: Jay Yang (ZTE),** **Peter Yee**

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

**The mixed mode meeting was called to order by the Chair at 9:02 a.m. PT.**

Agenda slide deck 11-24/989r4

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r45**

**Comment Resolution – Initial SA ballot - 11-24/0883r9**

**AM1 – 9:00-11:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0931-00-00bh-cids-3121-and-3122.docx (de la Oliva)**

**https://mentor.ieee.org/802.11/dcn/24/****11-24-0789-06-00bh-cr-for-pasn-id.docm (Li)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0916-06-00bh-cids-on-irm.docx (Smith)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith)**

**PM1 – 1:00-3:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0895-01-00bh-cr-for-sa-comments-in-11-10-9.docx (Yang)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0893-02-00bh-cr-for-sa-comments-in-9-4-2.docx (Yang)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0992-00-00bh-initial-sa-misc-cids.docx (Yang)**

**PM2 – 4:00-6:00 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1015-00-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

**Editorial comments (Ansley, Hamilton, et al)**

Q: What is the status of CID3120?

A: It’s ready for motion.

C: Carol Ansley requested to present the contribution for the resolution on editorial CIDs tomorrow morning.

C: Graham Smith indicated he’s more flexible on the time slots.

1. **Antonio de la Oliva presented 11-24-0931-00-00bh-cids-3121-and-3122.docx**

**CID 3016, CID 3122, CID 3121--deferred**

Antonio de la Oliva put a hold on his contribution for CIDs 3016 and 3122 as other members indicated there are some other relevant CIDs on this topic.

CID 3121 was also deferred due to the request from another group member.

1. **Yan Li presented 11-24-0789-06-00bh-cr-for-pasn-id.docm**

**CIDs 3003, 3015, 3194--Revised**

He agreed to remove the two diagrams along with the corresponding text, which will be transferred to the Annex as part of a contribution by Okan Mutgan.

Other member indicated that there is no PASN ID stuff in his proposed figure in the Annex in his contribution. The Chair suggested the two authors work offline on the figures to make them consistent with each other.

**CID 3025--Revised**

There is no further comment on the proposed resolution.

The proposed change was updated in 11-24/789r7

1. **Graham Smith presented 11-24/916r7**

**CID 3001, CID 3103, CID 3196--Revised**

He agreed to put the words “directed or broadcast” into the parentheses and deleted the word “any”.

**CID 3045--Rejected**

The comment proposed to add a note with the word of “synchronize”, while current text already has the similar text, but it’s with the word “distribute”. As the word “synchronize” has the same meaning as “distribute” in this context, the group agreed to reject it.

**CID 3079--Revised**

No further comments.

**CID 3058--Revised**

He agreed to change “an” to “any”, but he disagreed with changing the word “newly”. Besides, he agreed to add “by any STA” after “in use” according to the group’s suggestion.

 **CID 3080--Rejected**

He thought the Duplicated IRM was well defined in the current draft, with no need for it to be further defined.

No further comments.

**CID 3046--Accepted**

He agreed to delete the text “in so doing, the AP identifies...” according to the commenter’s request.

**CID 3047 --Rejected**

C: No further comments

**CID 3048--Transfer to Mark Hamilton**

Mark Hamilton indicated he should pick up this CID in his own document.

**CID 3050--Revised**

He rephrased the cited text to “A non-AP STA may use that address when actively scanning for any AP in the ESS.”.

**CID 3059--Revised**

He changed the cited text, from “an AP within” to “any AP in”.

CID 3081: deferred it, and he will look at the text from Mike via Mail.

1. **Graham Smith presented 11-24/968r1**

**CIDs 3008, 3028, 3084, 3142 --Revised**

All these CIDs are relevant to the device ID definition, so, he proposed to change “device identification” to “device identifier”. Other member also agreed with such a direction because the term “ID” is equal to “identifier” in 802.11me, and thus it’s good to change identification to identifier.

**CID 3010, CID3161--deferred**

He didn’t finish the revised resolutions due to time running out; he will bring them back later.

**The meeting was recessed at 11:32 a.m..**

**Meeting June 18th, 2024, 1:00 p.m. to 3:30 p.m. PT**

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

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

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

**Secretary: Jay Yang (ZTE), Peter Yee**

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

The mixed mode meeting was called to order by the Chair at 1:02 p.m. PT.

Agenda slide deck 11-24/989r5

1. Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r45**

**Comment Resolution – Initial SA ballot - 11-24/0883r9**

**AM1 – 9:00-11:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0931-00-00bh-cids-3121-and-3122.docx (de la Oliva)**

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**https://mentor.ieee.org/802.11/dcn/24/11-24-0916-06-00bh-cids-on-irm.docx (Smith)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith)**

**PM1 – 1:00-3:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0895-01-00bh-cr-for-sa-comments-in-11-10-9.docx (Yang)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0893-02-00bh-cr-for-sa-comments-in-9-4-2.docx (Yang)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0992-00-00bh-initial-sa-misc-cids.docx (Yang)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**PM2 – 4:00-6:00 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1015-00-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

Jay Yang (ZTE) presented [11-24/0895r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0895-01-00bh-cr-for-sa-comments-in-11-10-9.docx), covering the resolutions to CIDs 3006, 3101, 3139, 3140, 3141, 3167, and 3037 in that order. He suggested accepting the proposed resolution for CID 3006, which changes “Address 1” to “Address 2” on page 31, line 62 (albeit with the change not applied to page 26, line 60). CID 3101 makes a similar request. CIDs 3139, 3140, and 3141 are editorial and are assigned to the technical editor, Carol Ansley. CID 3167 is accepted to clear up some ambiguous wording. CID 3037 is rejected because subclause 3.2 has a definition for measurement ID. The resulting resolutions are found in [11-24/0895r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0895-02-00bh-cr-for-sa-comments-in-11-10-9.docx).

Yang then went on to [11-24/0893r02](https://mentor.ieee.org/802.11/dcn/24/11-24-0893-02-00bh-cr-for-sa-comments-in-9-4-2.docx), which deals with CIDs 3004, 3005, 3009, 3016, 3122, 3159, 3025, 3067, 3068, 3112, 3113, 3153, 3156, 3158, 3191, and 3193. CID 3004 is accepted to change “Address 1” to “Address 2”. CID 3005 led to a debate on whether there was harm in probing the associated AP along with unassociated APs during a probe scan. This CID is deferred for later discussion during this ad hoc session. CID 3009, 3016, 3122, and 3159 are all related. Yang proposes a revised resolution for 3009, while he accepts CID 3016. The resolution to 3122 is the same as for 3016, while the resolution for 3159 is the same as for 3009. CID 3025 was already covered by Yan Li. For CIDs 3067 and 3068, Yang proposes rejecting the comments because they are against baseline text not IEEE 802.11bh text. While Yang proposes rejecting CID 3112, the comment is actually correct that 9.4.2.1 does not define Element ID, etc. Instead, the comment should be accepted, although the editor will need to check with the ANA to see if Table 9-130 is under ANA control. CID 3113’s resolution led to a long discussion of how closely to specify device ID or measurement ID. Ultimately, it was rejected because it wasn’t clear what technical change would be satisfactory to the commenter. CID 3153’s resolution is revised as it deals with material that was already addressed in a resolution to CID 3005, which remains to be resolved. CID 3156 has the same resolution as CID 3024, which Graham Smith dealt with previously. CID 3158 is accepted to remove superfluous words. CID 3191 is revised to drop the request to add a device ID length because that already exists in Figure 9-1072a. CID 3193 is rejected as there’s no real need for two elements. The direction of the transmission and the length of the element both make clear which fields are present.

Next, Yang presented [11-24/0992r00](https://mentor.ieee.org/802.11/dcn/24/11-24-0992-00-00bh-initial-sa-misc-cids.docx) for CIDs 3007 and 3190. CID 3007 is accepted in revised form using the text Yang supplies. Yang proposes rejecting CID 3190 because existing text covers the content of the proposed note.

Having received offline input, Graham Smith returned to [11-24/0968r01](https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx) at CID 3010. He now proposes text to clarify that content of the Encrypted Data element field. These changes also apply to CID 3161. CID 3072 asks to make the Encrypted Data element field generic for uses outside of PASN. It’s rejected because there are lots of other encrypted data fields in the standard, so it would be confusing to make this one the generic carrier of encrypted data. CID 3022 is rejected because a Reassociate operation does not involve a disconnection (Disassociate) operation. Furthermore, a MAC address change is not allowed.

**The meeting was recessed at 3:30 p.m.**

**Meeting June 18th, 2024, 4:00 p.m. to 6:00 p.m. PT**

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

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

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

**Secretary: Jay Yang(ZTE), Peter Yee**

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

**The mixed mode meeting was called to order by the Chair at 4:01 p.m. PT.**

Agenda slide deck 11-24/989r5

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r45**

**Comment Resolution – Initial SA ballot - 11-24/0883r9**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1015-00-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

1. **Graham Smith presented 11-24/968r2**

**CID 3026--Revised**

He revised the text by adding “the element” after “When” in the two sentences. In order to keep the expression aligned with the device ID feature, Jay Yang asked to revisit the resolutions of CID 3009 and CID 3158.

**CID 3027--Revised**

He agreed with the first part of the comments and reworded the text, changing “can be used” to “provides”. The second part of the comment was ignored.

1. **Graham Smith revisited 11-24/916r8**

**CID 3085--Revised**

He updated the resolution to align it with the resolution for CID 3027.

**CID 3088--Revised**

He made the same change to the resolution for CID 3085.

1. **Graham Smith presented 11-24/968r6**

**CID 3029--Rejected**

He suggested to reject the wording proposed by the commenter.

**CID 3036 --Revised**

He changed to word “STA” to “non-AP STA” in three places all within subclause 4.5.4.10 .

**CID 3091, CID 3092, CID 3093--Revised**

He changed the word “an AP” to “any AP” in the cited text. And he also changed the Note2 to normative text.

**CID 3098, CID 3099--Accepted**

The rewording suggestion made by the commenter is accepted.

**CID 3100--****Rejected**

The commenter made the comment on baseline text, and thus it’s rejected.

**CID 3106--Revised**

The rewording suggestion made by the commenter was accepted, but there was a typo in the proposed text PAS should be PASN.

**CID 3107--Deferred**

The cited sentence caused different interpretations from different members. It’s deferred and needs more offline work on it.

**CID 3109, CID 3110--Rejected**

The commenter made the comment on the baseline text, and thus it’s rejected.

**CID 3149--Rejected**

The proposal of adding definition of ESS distinctiveness was discussed in 802.11 ARC SC with little success.

**CID 3151--Rejected**

It’s hard to identify the problem pointed out by the commenter.

**CID 3171--Rejected**

The commenter made the comment on the baseline text, and thus it’s rejected.

**CID 3172--Revised**

“AKMP” was added at the end of the cited phrase to address the commenter’s concern.

Q: How many CIDs left in this document?

A: 7

C: Let’s try all of them and see how it’s going. Let’s go through Graham’s contribution at the end of slots.

**The meeting was recessed at 6:02 p.m. PT**

**Attendee information**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbh AdHoc - Sunnyvale | 6/18 | Ansley, Carol | Cox Communications Inc. |
| TGbh AdHoc - Sunnyvale | 6/18 | DeLaOlivaDelgado, Antonio | InterDigital, Inc. |
| TGbh AdHoc - Sunnyvale | 6/18 | Goyal, Rashim | CommScope |
| TGbh AdHoc - Sunnyvale | 6/18 | Hamilton, Mark | CommScope, Inc. |
| TGbh AdHoc - Sunnyvale | 6/18 | Levy, Joseph | InterDigital, Inc. |
| TGbh AdHoc - Sunnyvale | 6/18 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbh AdHoc - Sunnyvale | 6/18 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbh AdHoc - Sunnyvale | 6/18 | Mutgan, Okan | Nokia |
| TGbh AdHoc - Sunnyvale | 6/18 | Smith, Graham | SRT Wireless |
| TGbh AdHoc - Sunnyvale | 6/18 | Smith, Luther | Cable Television Laboratories Inc. (CableLabs) |
| TGbh AdHoc - Sunnyvale | 6/18 | Thanigaivel, Revathi | CommScope |
| TGbh AdHoc - Sunnyvale | 6/18 | Yang, Jay | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/18 | Yee, Peter | NSA-CSD |
| TGbh AdHoc - Sunnyvale | 6/18 | Li, Yan | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/18 | Quan, Li | ZTE Corporation |

**Meeting June 19th, 2024, 9:00 a.m. to 11:30 a.m. PT**

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

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

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

**Secretary: Jay Yang (ZTE), Peter Yee**

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

**The mixed mode meeting was called to order by the Chair at 9:02 a.m. PT.**

Agenda slide deck 11-24/989r7

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r46**

**Comment Resolution – Initial SA ballot - 11-24/0883r12**

**AM1 – 9:00-11:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0919-03-00bh-cr-on-activated-vs-supported.docx (Stacey)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0898-02-00bh-sa-cr-for-cid3131.docx (Mutgan)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1047-00-00bh-editorial-cid-discussion.xlsx (Ansley, Hamilton, et al); Also, EAPOL-Key frame notation**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1015-01-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**PM1 – 1:00-3:30 p.m. PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1026-00-00bh-resolution-of-padding-cids.docx (Harkins)**

**Revisit: CID 3081, 11-24/916 (Smith); CID 3107, 11-24/968 (Smith); CID 3121, 11-24/931 (de la Oliva); CIDs 3005, 3009, 3153, 11-24/0893 (Yang); ANA alignment CID 3112?**

**p.m.2 – 4:00-6:00 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0884-00-00bh-p802-11bh-initial-sa-comments-personal-comments.xlsx (Hamilton)**

**https://mentor.ieee.org/802.11/dcn/23/11-23-2148-01-00bh-probability-of-irm-duplicates.pptx (Smith)**

1. Mark Hamilton presented the statistical data for the CIDs. It shows that more than 20 technical assigned CIDs remain at this point.
2. **Okan Mutgan presented 11-24/898r2**

**CID 3131 --Deferred**

C: The name of the RSNE field in Beacon/probe response frames, is called “device ID support”, while in the association request/response frame, it’s named “device ID active”.

A: Agreed to make them consistent in the next revision.

C: If the STA doesn’t support PASN, why assign PASN ID to a non-STA?

A: The STA may not activate PASN ID in the initial connection, but the STA may use the provided PASN ID in a subsequent PASN authentication.

C: In the initial connection, the simple approach is that the AP is always assigning both Device ID and PASN ID.

C: The simple way the AP sends both Device ID and PASN ID, and the STA can go throw it away if the STA doesn’t support PASN ID. And a uniform solution in the 4-way HS is simpler.

The group thought the figures in this contribution are not consistent with Yan’s contribution. They need to review the text of the initial connection procedure in Yan’s contribution. And Graham Smith indicated he can help offline on CID 3131.

1. **Mike Montemurro presented 11-24/298r4 to illustrate the notation issue.**

The Key Data field value is denoted by {…} and optional key data elements are denoted by […, ]

Carol Ansley indicated she will copy the relevant material in this document.

1. **Carol Ansley presented 11-24/1047-00-00bh-editorial-cid-discussion.xlsx**

C: Carol didn’t get to finish it due to time running out, and she will continue to present it during PM1 after Dan Harkin’s presentation.

**The meeting was recessed at 11:31 a.m. PT.**

**Meeting June 19th, 2024, 1:00 p.m. to 3:30 p.m. PT**

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

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

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

**Secretary: Jay Yang (ZTE), Peter Yee**

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

**The mixed mode meeting was called to order by the Chair at 1:01 p.m. PT.**

Agenda slide deck 11-24/989r8

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r46**

**Comment Resolution – Initial SA ballot - 11-24/0883r12**

**AM1 – 9:00-11:30 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0919-03-00bh-cr-on-activated-vs-supported.docx (Stacey)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0898-02-00bh-sa-cr-for-cid3131.docx (Mutgan)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**PM1 – 1:00-3:30 PT**

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**https://mentor.ieee.org/802.11/dcn/24/11-24-1047-00-00bh-editorial-cid-discussion.xlsx (****Ansley, Hamilton, et al); Also, EAPOL-Key frame notation**

**https://mentor.ieee.org/802.11/dcn/24/11-24-1015-01-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

**Revisit: CID 3081, 11-24/916 (Smith); CID 3107, 11-24/968 (Smith); CID 3121, 11-24/931 (de la Oliva); CIDs 3005, 3009, 3153, 11-24/0893 (Yang); ANA alignment CID 3112?**

**PM2 – 4:00-6:00 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0884-00-00bh-p802-11bh-initial-sa-comments-personal-comments.xlsx (Hamilton)**

**https://mentor.ieee.org/802.11/dcn/23/11-23-2148-01-00bh-probability-of-irm-duplicates.pptx (Smith)**

1. **Dan Harkins presented 11-24/1026r0**

**CID 3137, CID3183--Revised**

C: CID 3199 is very similar to this topic.

A: The commenter wants to add a note to say something; it is OK for me to reject it.

1. **Carol Ansley presented 11-24/1047r0**

**CID 3014--Rejected**

The commenter suggested to swap the paragraph in order to group the AP relevant paragraphs, and also group PASN relevant paragraphs. She proposed to reject it as other members have proposed other changes in other places, and it’s better to address them together.

**CID 3033--Revised**

She removed the word “mechanism” or “operation” from the title, which would be applied to both the Device ID and IRM features.

**CID 3053--Revised**

She changed “should” to “shall” according to the comment and also, revised the sentence to “The KEK, as derived from the PTK (see 12.13.7), shall be used with the negotiated key wrap algorithm to encrypt the Encrypted Data field of the PASN Encrypted Data element”

**CID 3060--Revised**

She agreed with this comment, changing “TA” to “the TA” at the cited location, and also she deleted 2 occurrences of the word “own”.

**CID 3061--Accepted**

C: No further comments

**CID 3062--Revised**

She agreed with this comments and added articles before “IRM” and “device ID” in the cited locations.

C: CID 3087, CID 3061, CID 3094, and CID 3126 may collide; we need to check the relevant CIDs.

A: Editor will figure out it.

**CID3063--Revised**

She agreed with this comments, and changed “set to” to “equal to” in the cited location. Also, she changed the word “sets” to “provides” in another part of the text.

**CID 3064--Accepted**

No further comment.

**CID 3123--Revised**

She accepted the proposed change made by the commenter and also she revised the text to “The format of the Device ID subelement is shown ...”

**CID 3124--Rejected**

She thought the current language is sufficiently descriptive in this context.

**CID 3130-Accepted**

No further comment.

**CID 3136 --Rejected**

She thought the current language was correct and the number of bits is dependent upon the inclusion or not of both KEK and KDK.

**CID 3138, CID 3139--Rejected**

This is baseline text.

**CIDs 3140 and 3141--Rejected**

C: the lower-case use is the convention in the baseline for referencing these frames in a general sense.

**CID 3150, CID 3160--Accepted**

She accepted the proposed rewording suggestion.

**CID 3163 --Rejected**

She will talk offline with other editors to address it because it needs a hot-link to the baseline.

**CID 3165--Accepted**

She accepted the proposed rewording suggestion. Also, she added the location (P34.1 and P34.19) of the cited text as the commenter doesn’t mention it.

**CID 3170 --Revised**

She accepted the proposed rewording suggestion and added “the” between “When” and “PASN AKMP”.

**CID 3174--Revised**

The resolution is the same as CID3172.

**CID 3176--Revised**

C: The concept of “KEK in PASN” should be not capitalized, but the term in the table should be capitalized. Other occurrences that are in the MIB also need to be capitalized.

**CID 3182 --Accepted**

No further discussion.

**CID 3205 --Rejected**

She didn’t find the issue pointed out by the commenter in the current draft.

**CID 3206 --Accepted**

No further discussion.

**CID 3207 --Revised**

The group debated on whether to use “can”, “is able to”, “might”, etc. to reword the sentence for a long time and decided to use “can” finally. She revised the whole sentence according to the group’s suggestion.

C: Mark Hamilton indicated he will grab the resolutions in Carol’s spreadsheet and update them in the comment database.

1. Jay Yang displayed the revised [11-24/0893r04](https://mentor.ieee.org/802.11/dcn/24/11-24-0893-04-00bh-cr-for-sa-comments-in-9-4-2.docx) to deal with CIDs 3005, 3153, 3009, and 3158. He started with CID 3009, where he has inserted the words “the element” to keep consistency with other similar text for IRM, although “is” needs to be inserted before “sent”. CID 3158 is similarly modified. CID 3005’s resolution is to use language similar to that found in clause 9.4.2.19.7 (page 25, line 60 in IEEE 802.11bh D4.0). CID 3153 touches on the text for CID 3005 as well. The revised text will be found in [11-24/0893r05](https://mentor.ieee.org/802.11/dcn/24/11-24-0893-04-00bh-cr-for-sa-comments-in-9-4-2.docx).
2. **Mark Hamilton presented 11-24/1015r1**

**CID 3134,3200--Revised**

He didn’t finish it due to the time running out.

**The meeting was recessed at 3:32 p.m.**

**Meeting June 19th, 2024, 4:00 p.m. to 6:00 p.m. PT**

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

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

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

**Secretary: Jay Yang(ZTE), Peter Yee**

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

**The ad hoc meeting was called to order by the Chair at 4:01 p.m. PT.**

Agenda slide deck 11-24/989r8

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r45**

**Comment Resolution – Initial SA ballot - 11-24/0883r9**

**PM2 – 4:00-6:00 PT**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0968-01-00bh-tgbh-sa-ballot-misc-cids.docx (Smith, cont)**

**Revisit: CID 3081, 11-24/916 (Smith); CID 3107, 11-24/968 (Smith); CID 3121, 11-24/931 (de la Oliva); CIDs 3005, 3009, 3153, 11-24/0893 (Yang); ANA alignment CID 3112?**

**Continued discussion/review on PASN ID topic(11-24/789,11-24/898)**

1. **Graham Smith presented 11-24/968r1**

**CID 3173--Revised**

He changed “including Data Encrypted element and Device ID subelement…” to “including a Device ID subelement as defined in 9.4.2.316 (Device ID element) in a PASN Encrypted Data element...” in three places.

**CID 3180--Deferred**

He said the value of KEY ID is “0” in 802.11bh draft, while KEY ID is” 3 0” in 802.11me, and they are not consistent with each other. He will check offline with other members. The resolution was deferred.

**CID 3187 --Accepted**

**CID 3188--Revised**

Besides accepting the proposed change, he added additional text reading, “If not, the protocol using the opaque device identifier is notified of the failure and no identifier is passed up.”

**CID 3192--Revised**

He revised the sentence to “An IRM Action field, immediately after the Category field, differentiates the meanings.”

**CID 3199 --Rejected**

**CID 3209****--Revised**

He merged the two cited sentences into one sentence.

1. **Graham Smith revisited CID 3081 in 11-24/916r8**

**CID 3081--Revised**

He accepted the proposed change made by the commenter. Moreover, he added the Device ID KDE and the IRM KDE in the FT EAPOL message in subclause 13.

1. **Yan Li presented 11-24/789r7**

Yan didn’t finish it due to the time running out, and Yan will continue this topic during the session of 20th June.

**The meeting was recessed at 6:04 p.m.**

**Attendee information**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbh AdHoc - Sunnyvale | 6/19 | Ansley, Carol | Cox Communications Inc. |
| TGbh AdHoc - Sunnyvale | 6/19 | Harkins, Daniel | Hewlett Packard Enterprise (Aruba Networks) |
| TGbh AdHoc - Sunnyvale | 6/19 | Levy, Joseph | InterDigital, Inc. |
| TGbh AdHoc - Sunnyvale | 6/19 | McCann, Stephen | Huawei Technologies Co., Ltd |
| TGbh AdHoc - Sunnyvale | 6/19 | Montemurro, Michael | Huawei Technologies Co., Ltd |
| TGbh AdHoc - Sunnyvale | 6/19 | Mutgan, Okan | Nokia |
| TGbh AdHoc - Sunnyvale | 6/19 | Smith, Graham | SRT Wireless |
| TGbh AdHoc - Sunnyvale | 6/19 | Yang, Jay | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/19 | Yee, Peter | NSA-CSD |
| TGbh AdHoc - Sunnyvale | 6/19 | Quan, Li | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/19 | Hamilton, Mark | CommScope, Inc. |
| TGbh AdHoc - Sunnyvale | 6/19 | Li, Yan | ZTE Corporation |

**Meeting June 20th, 2024, 9:00 a.m. to 11:30 a.m. PST**

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

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

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

**Secretary: Jay Yang (ZTE), Peter Yee**

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

**The teleconference meeting was called to order by the Chair at 9:02 a.m. PST.**

Agenda slide deck 11-24/989r9

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

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:**

**Timeline reminder (slide 18)**

**Motions record: 11-22/0651r46**

**Comment Resolution – Initial SA ballot - 11-24/0883r13**

**AM1 – 9:00-11:30 PT**

**CID 3030, https://mentor.ieee.org/802.11/dcn/24/11-24-0919-03-00bh-cr-on-activated-vs-supported.docx (Stacey)**

**PASN ID comments (3003, 3015, (3194), 3025, 3131):**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0789-08-00bh-cr-for-pasn-id.docm (Li)**

**https://mentor.ieee.org/802.11/dcn/24/11-24-0898-02-00bh-sa-cr-for-cid3131.docx (Mutgan)**

**Revisit CIDs 3016, 3022 (Yang email)**

**CIDs 3107, 3180, https://mentor.ieee.org/802.11/dcn/24/11-24-0968-04-00bh-tgbh-sa-ballot-misc-cids.docx (Smith)**

**CID 3121, 11-24/931 (de la Oliva)**

**ANA alignment CID 3112? (Carol working off-line with Robert)**

**(3 CIDs): https://mentor.ieee.org/802.11/dcn/24/11-24-1015-02-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

**PM (PM1 – 1:00-3:30 PT; PM2 – 4:00-6:00 PT – as needed)**

**Review and disposition of all Initial SA LB comments**

**Motions (see Motions deck, Motions 41 and 42)**

1. **Robert Stacey presented 11-24/919r3**

**CID 3030**

The group agreed the expression in 11bh draft should be aligned with the baseline, and they agreed the general direction is to change “active” to “support”.

He reworded some places according to the feedback during the call and then updated the revision to 11-24/919r4.

1. **Yan Li presented 11-24/789r8.**

**CID 3003, 3015, 3194, CID 3025--Revisited & Revised**

The group reached a generally agreement on the direction to address these CIDs. For some editorial issues, like changing “subelement” to “element”, the editor will address them offline. Meanwhile, in the initial connection phase, he changed “may” to “shall” (provide both a PASN ID and a Device ID) to make the implementation simpler. And all the on-line updates were incorporated into the 24/789r9.

1. **Okan Mutgan presented 11-24/898r3**

**CID 3131--Deferred and offline change some texts.**

He agreed to change “active” to “support” in the RSNE/RSNXE capability field in all figures and in the relevant text to align with Robert’s contribution. The contribution was further updated to revision 4 after incorporating the following comments and suggestion during the call.

C: Why are both device ID and PASN ID provided at the beginning?

A: The purpose is to give you PASN ID for PASN authentication later.

C: A new PASN ID shall be provided once device ID is changed in the FILS mode.

A: Agree.

C: For device ID and IRM combination case, in the subsequence frame exchange, are both the device ID and IRM used for recognition?

A: Yes, this is a specific case where two optional features are used in parallel.

1. **Antonio de la Oliva presented 11-24/931r0**

**CID 3121--Withdrawn**

The group thought the story behind the proposed change is not correct.

CID 3121 is withdrawn by the commenter.

**The meeting was recessed at 11:34 a.m.**

**Meeting June 20th, 2024, 1:00 p.m. to 3:30 p.m. PST**

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

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

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

**Secretary: Jay Yang (ZTE), Peter Yee**

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

C: Before the meeting started, the group has Slido (a new voting tool embedded in Webex) to test, and decided to vote the subsequent motions manually as the tool didn’t work well.

**The mixed mode meeting was called to order by the Chair at 1:08 p.m. PT.**

Agenda slide deck 11-24/989r10

1. **Policies and procedures were presented by Chair Mark Hamilton. (Slides 4 to 14)**

There were no Patent declarations.

Copyright policy slides were presented (Slides 10 and 11)

**PM (PM1 – 1:00-3:30 PT; PM2 – 4:00-6:00 PT – as needed)**

**Revisit CIDs 3016, 3022 (Yang email)**

**CIDs 3107, 3180, https://mentor.ieee.org/802.11/dcn/24/11-24-0968-05-00bh-tgbh-sa-ballot-misc-cids.docx (Smith)**

**(3 CIDs): https://mentor.ieee.org/802.11/dcn/24/11-24-1015-02-00bh-tgbh-cids-on-shared-identity-state.docx (Hamilton)**

**Review and disposition of all Initial SA LB comments**

**Motions (see Motions deck, Motions 41 and 42)**

1. **Jay Yang present 11-24/893r6 to revisit two CIDs**

**CIDs 3016 and3022--Revised**

He found other occurrences in the draft relevant to the proposed change in CID 3016, like the status field in the device ID subelement, IRM subelement, device ID KDE, and IRM KDE. And he proposed to address them together via the two CIDs.

1. **Graham smith presented 11-24/968r4**

**CID 3180--Rejected**

In the offline discussion with some security-focused members, he determined that the KEY ID shall be always set to 0, and thus the current text in 11bh draft is correct.

**CID 3107--Revised**

After checking offline with some other members of the group, he revised the cited text to “When dot11KEKPASNActivated is false or when dot11KEKPASNActivated is true and the KEK in PASN field in the RSNXE from the peer is 0, PTK is composed of the Key Confirmation Key (KCK), Temporal Key (TK) and the Key Derivation Key (KDK) which are derived as follows:"

1. Mark Hamilton presented 11-24/1015r2

**CID 3134, CID 3200-Revised**

He added some sentences to clarify the value/purpose of the shared identity state, and the value of being able to logically match a returning STA to such previous established shared identity state.

**CID 3048--Rejected**

No further discussion.

The document was updated to 11-24/1015r3.

1. **Okan Mutgan presented 11-24/898r5**

**CID 3131-Revised**

He agreed to delete the third series of frame exchanges in the combination case, and then updated the proposed change in 11-24/898r6.

1. **Mark Hamilton presented 11-24/651r46**

Motion #41 – Initial SA ballot comment resolution

Approve comment resolutions for all of the comments received from Initial SA LB on P802.11bh D4.0, per the resolutions recorded in 11-24/0883r15 with“Ready for motion”in the Notes column.

Moved: Jay Yang

Second: Graham Smith

Result: Y:6 / N:0 / A:0 (Motion passes)

**Motion #42: P802.11bh first recirculation SA letter ballot**

Having approved comment resolutions for all of the comments received from Initial SA letter ballot on P802.11bh D4.0, as contained in 11-24/0883r15,

Instruct the editor to prepare P802.11bh D5.0 incorporating those changes, and

Approve a 10+ day SA Recirculation Ballot asking the question“Should P802.11bh D5.0 be forwarded to RevCom?” ,giving the Chair discretion to manage the ballot duration as needed to compete on/before July 11.

Moved by: Jay Yang

Second: Joe Levy

Result: Yes:6, No:0, Abstain:0 (Motion Passes)

Q: In the middle of next week (27th. June), will Draft 5.0 be done?

A: I’m working on it.

Q: Thanks Mark and Ruckus Networks for hosting this ad hoc meeting.

**The meeting was adjourned at 2:32 p.m. PT**

**Attendee information**

|  |  |  |  |
| --- | --- | --- | --- |
| Breakout | Timestamp | Name | Affiliation |
| TGbh AdHoc - Sunnyvale | 6/20 | Ansley, Carol | Cox Communications Inc. |
| TGbh AdHoc - Sunnyvale | 6/20 | DeLaOlivaDelgado, Antonio | InterDigital, Inc. |
| TGbh AdHoc - Sunnyvale | 6/20 | Hamilton, Mark | CommScope, Inc. |
| TGbh AdHoc - Sunnyvale | 6/20 | Levy, Joseph | InterDigital, Inc. |
| TGbh AdHoc - Sunnyvale | 6/20 | Mutgan, Okan | Nokia |
| TGbh AdHoc - Sunnyvale | 6/20 | Smith, Graham | SRT Wireless |
| TGbh AdHoc - Sunnyvale | 6/20 | Smith, Luther | Cable Television Laboratories Inc. (CableLabs) |
| TGbh AdHoc - Sunnyvale | 6/20 | Stacey, Robert | Intel |
| TGbh AdHoc - Sunnyvale | 6/20 | Yang, Jay | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/20 | Li, Yan | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/20 | Quan, Li | ZTE Corporation |
| TGbh AdHoc - Sunnyvale | 6/20 | Yee, Peter | NSA-CSD |