Minutes IEEE P802.11
Wireless LANs

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| IEEE 802.11 TGbh Interim Meeting Minutes, September 10-15, 2023Randomized and Changing MAC addresses (RCM) |
| Date: 2023-09-14 |
| Author(s): |
| Name | Affiliation | Address | Phone | email |
| Peter Yee | NSA-CSD | Mountain View, CA, US |  | peter@akayla.com |

Abstract

This document contains the minutes of the IEEE 802.11bh interim meeting of September 10-15, 2023.

Note: Highlighted text are action items.

Q- proceeds a question asked at the meeting

A- proceeds an answer

C- proceeds a comment

**Meeting September 11th, 2023, 1:30 p.m. to 3:30 p.m. ET**

**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 1:31 p.m. EDT.**

Agenda slide deck [11-23/1341r01](https://mentor.ieee.org/802.11/dcn/23/11-23-1341-01-00bh-agenda-tgbh-2023-september-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:**
	+ September Interim meetings: Monday, 13:30-15:30; Tuesday, 13:30-15:30; Wednesday 10:30-12:30; Thursday 8:00-10:00
	+ Approve July plenary and teleconference minutes (next slide)
	+ Timeline review (slide 18)
* **Motions record:** [**11-22/0651r23**](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-23-00bh-tgbh-motions-list.pptx)
* **Results of Initial WG LB (on D1.0): (slide 19),** [**11-23/1152r18**](https://mentor.ieee.org/802.11/dcn/23/11-23-1152-18-00bh-ieee-802-11bh-lb274-comments.xlsx)
* **Discussion topics:** [**11-23/1533r0**](https://mentor.ieee.org/802.11/dcn/23/11-23-1533-00-00bh-use-of-status-field-for-not-recognized-mismatch-and-duplicate.pptx)**,** [**11-23/1453r1**](https://mentor.ieee.org/802.11/dcn/23/11-23-1453-01-00bh-when-is-an-id-fixed.pptx) **(update/revisit?),** [**11-23/1314r3**](https://mentor.ieee.org/802.11/dcn/23/11-23-1314-03-00bh-cr-for-use-case-4-8.docx)**,** [**11-23/1536r0**](https://mentor.ieee.org/802.11/dcn/23/11-23-1536-00-00bh-cid-79-80-resolutions.docx)
* **Comment Resolution**
* **Discussion on response to WBA liaisons:** [**11-21/0703r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-0703-00-0000-2021-april-liaison-from-wba.docx)**,** [**11-21/1141r0**](https://mentor.ieee.org/802.11/dcn/21/11-21-1141-00-00bh-excerpts-of-wba-document-wi-fi-id-scope.pptx)**,** [**11-22/0668r0**](https://mentor.ieee.org/802.11/dcn/22/11-22-0668-00-0000-liaison-statement-from-wba-re-wi-fi-devices-identification-group.pdf)**,** [**11-22/0653r0**](https://mentor.ieee.org/802.11/dcn/22/11-22-0653-00-0000-2022-march-wba-whitepaper-re-device-identification.pdf)
	+ [11-23/0888r0](https://mentor.ieee.org/802.11/dcn/23/11-23-0888-00-00bh-wba-liaison-discussion.pptx) Stephen Orr

The agenda was approved with unanimous consent.

1. **Timeline Review**

The current timeline shows a recirculation letter ballot to be initiated coming out of the November meeting. The hope is to wrap up all approvals by September 2024.

1. **Results of the Initial Working Group Letter Ballot on D1.0**

The results of the letter ballot and the current state of comment resolution are tracked in [11-23/1152r18](https://mentor.ieee.org/802.11/dcn/23/11-23-1152-18-00bh-ieee-802-11bh-lb274-comments.xlsx).

1. **Using the Status field for “Not Recognized” “No Agreement” and “Duplicate IRM” CIDs 7, 21, 114, 224, 135, 257**

Graham Smith (SR Technologies) presented [11-23/1533r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1533-00-00bh-use-of-status-field-for-not-recognized-mismatch-and-duplicate.pptx) on the topic of using the status field to signal IRM and Device ID issues. For a Device ID alone that is not recognized, he suggests the AP send the not recognized status and a new Device ID in message 3 of the 4-way handshake. For an IRM alone that is not recognized, the AP sends the not recognized status in message 3, with the STA responding in message 4 with a new IRM, as though it were a new STA. For a combined IRM/Device ID in which the Device ID is not recognized but the IRM is, the AP send the negative status for the Device ID (along with a new Device ID to use going forward) and the positive status for the IRM in message 3, with the STA then sending a new IRM in message 4. Another path in this case, is that the AP signals lack of recognition for both IRM and Device ID because the uncertainty. There were concerns about whether (useful) information is leaked to an attacker based on the signaling and how serious this is. Smith has text for his proposal. He also has text to deal with mismatched but recognized identifiers. He suggests treating this as a not recognized case, not as one that needs to be signaled as an explicit mismatch. Smith believes that his approach to not recognized statuses applies to FILS and PASN as well. Smith next dealt with duplicate IRMs. He characterizes the chances of having two STAs end up with an IRM in common as being rare. He offers three different solutions for handling duplicate IRMs. They differ in how much additional specification is required.

Smith ran two straw polls:

#1 Do you agree that “not recognized” status is sufficient, APs can treat IRM and device ID identifiers/states as independent or dependent? i.e., no special “mismatch” status required, treat as “not recognized” on each. Note AP behavior in Note(s) or normative if deemed required TBD.

It was deemed that everyone in the meeting was in favor.

#2 For duplicate IRM do you prefer (remember is rare event):

A. Addition of Action frames?

B. Wait for next association and use “not recognized” status?

The results were 9/7/6 (A/B/abstain), essentially no consensus.

**Meeting recessed at 3:32 p.m.**

**Meeting September 12th, 2023, 1:30 p.m. to 3:30 p.m. EDT**

**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 1:34 p.m. EDT.**

Agenda slide deck [11-23/1341r02](https://mentor.ieee.org/802.11/dcn/23/11-23-1341-02-00bh-agenda-tgbh-2023-september-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:**
* **September Interim meetings: Monday, 13:30-15:30; Tuesday, 13:30-15:30; Wednesday 10:30-12:30; Thursday 8:00-10:00**
	+ Motions record: [11-22/0651r23](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-23-00bh-tgbh-motions-list.pptx)
	+ Approve July plenary and teleconference minutes (next slide)
* **Discussion on response to WBA liaisons:**
	+ [11-21/0703r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0703-00-0000-2021-april-liaison-from-wba.docx), [11-21/1141r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1141-00-00bh-excerpts-of-wba-document-wi-fi-id-scope.pptx), [11-22/0668r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0668-00-0000-liaison-statement-from-wba-re-wi-fi-devices-identification-group.pdf), [11-22/0653r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0653-00-0000-2022-march-wba-whitepaper-re-device-identification.pdf)
	+ [11-23/0888r0](https://mentor.ieee.org/802.11/dcn/23/11-23-0888-00-00bh-wba-liaison-discussion.pptx) Stephen Orr
* **Comment Resolution**
	+ [11-23/1245r19](https://mentor.ieee.org/802.11/dcn/23/11-23-1245-19-00bh-cid-resolutions-irm-1.docx) (Smith): Return to CIDs 135, 224, 257
	+ CIDs 7, 21, 114 (Duplicate IRM): [11-23/1392r2](https://mentor.ieee.org/802.11/dcn/23/11-23-1392-02-00bh-cid-7-21-114-resolutions-for-duplicate-irm.docx) (Smith)
	+ [11-23/1453r1](https://mentor.ieee.org/802.11/dcn/23/11-23-1453-01-00bh-when-is-an-id-fixed.pptx) (update/revisit?),
	+ Continue with Comment Resolution queue
1. **Approval of Minutes**

Minutes of the July plenary ([11-23/1269r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1269-00-00bh-minutes-tgbh-plenary-meeting-july-2023.docx)), and the July 25th ([11-23/1317r01](https://mentor.ieee.org/802.11/dcn/23/11-23-1317-01-00bh-802-11bh-telecon-minutes-july-25-2023.docx)), August 1st ([11-23/1326r01](https://mentor.ieee.org/802.11/dcn/23/11-23-1326-01-00bh-802-11bh-telecon-minutes-august-1-2023.docx)), August 8th ([11-23/1366r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1366-00-00bh-802-11bh-telecon-minutes-august-8-2023.docx)), August 22nd ([11-23/1397r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1397-00-00bh-802-11bh-telecon-minutes-august-22-2023.docx)), August 29th ([11-23/1438r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1438-00-00bh-802-11bh-telecon-minutes-august-29-2023.docx)) and September 5th ([11-23/1589r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1589-00-00bh-802-11bh-telecon-minutes-september-5-2023.docx)) teleconferences were approved by unanimous consent.

1. **Discussion on response to WBA liaisons**

Deferred for later discussion. We need to flesh this out so that we can send a more comprehensive response to the WBA (Wireless Broadband Alliance).

1. **Comment resolutions**

Graham Smith (SRT Wireless) presented the revised [11-23/1245r19](https://mentor.ieee.org/802.11/dcn/23/11-23-1245-19-00bh-cid-resolutions-irm-1.docx), starting at CIDS 135, 224, and 257. He is proposing that for a Device ID/IRM mismatch, the status “not recognized” be sent, requiring the non-AP STA to start again. The AP signals “not recognized” when it cannot unequivocally identify the non-AP STA. There were comments from the participants on the optionality of providing new identifiers and the ordering of the modified text in the larger context of the document. After rewording of the resolution text, the group agreed it was acceptable.

Smith then offered the updated [11-23/1392r03](https://mentor.ieee.org/802.11/dcn/23/11-23-1392-03-00bh-cid-7-21-114-resolutions-for-duplicate-irm.docx) to deal with duplicate identifiers for different STAs. Options are: 1) signal “not recognized” if there are duplicates; 2) have the AP send a to-be-defined Action frame for IRM Duplicate and expect a to-be-defined New IRM Action frame from the non-AP STA. The group did not select between the two options yesterday. The group was amenable to option 2, although there is a lot of discussion and wordsmithing to be done on the Action frames definitions and usage. In the text where the word “network” occurs, a different, more accurate term is needed. It was further noted that PASN doesn’t support class 3 Action frames because of where it occurs in the state machine. Class 1a Action frames are needed for PASN. Okan Mutgan (Nokia) will send details on that to Smith.

Smith then returned to [11-23/1245r19](https://mentor.ieee.org/802.11/dcn/23/11-23-1245-19-00bh-cid-resolutions-irm-1.docx), this time to start at CID 108. Questions arose whether the APs in the ESS need to have a consistent configuration for the IRM Active field. The use of passive language in this specification text is also problematic as it doesn’t explain which entity is responsible for enforcement of the requirement for consistency. After much discussion, a revised resolution was reached that indicates that IRM operations depend on all APs in the ESS being configured with a dot11IRMActivated value of true.

**Meeting recessed at 3:29 p.m.**

**Meeting September 13th, 2023, 10:30 a.m. to 12:30 p.m. EDT**

**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 10:34 a.m. EDT.**

Agenda slide deck [11-23/1341r03](https://mentor.ieee.org/802.11/dcn/23/11-23-1341-03-00bh-agenda-tgbh-2023-september-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:**
	+ September Interim meetings: Monday, 13:30-15:30; Tuesday, 13:30-15:30; Wednesday 10:30-12:30; Thursday 8:00-10:00
	+ Motions record: [11-22/0651r23](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-23-00bh-tgbh-motions-list.pptx)
* **Discussion on response to WBA liaisons:**
	+ [11-21/0703r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0703-00-0000-2021-april-liaison-from-wba.docx), [11-21/1141r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1141-00-00bh-excerpts-of-wba-document-wi-fi-id-scope.pptx), [11-22/0668r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0668-00-0000-liaison-statement-from-wba-re-wi-fi-devices-identification-group.pdf), [11-22/0653r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0653-00-0000-2022-march-wba-whitepaper-re-device-identification.pdf)
	+ [11-23/0888r0](https://mentor.ieee.org/802.11/dcn/23/11-23-0888-00-00bh-wba-liaison-discussion.pptx) Stephen Orr
* **Comment Resolution**
1. **WBA liaisons status**

Stephen Orr (Cisco) has received some offline edits to [11-23/0888r00](https://mentor.ieee.org/802.11/dcn/23/11-23-0888-00-00bh-wba-liaison-discussion.pptx), the response to the WBA’s liaisons. He’s incorporating those, but he would like to receive more input and will have a longer status update tomorrow.

1. **CIDs 7, 21, 114**

Graham Smith (SRT Wireless) gave revised resolutions for CIDs 7, 21, and 114, as shown in [11-23/1392r04](https://mentor.ieee.org/802.11/dcn/23/11-23-1392-04-00bh-cid-7-21-114-resolutions-for-duplicate-irm.docx). These resolutions incorporate all of the changes requested yesterday, except for dealing with the word “network”. A new version of the resolutions will be required for at least some editorial updates as well. The “network” term encompasses something slightly different than “ESS” or “all of the APs in the ESS”, but the group has not decided upon a precise term that is completely satisfactory. Consensus was eventually reached to use the term “IEEE 802 LAN”, which can encompass multiple ESSes and IEEE 802.3 LANs used in conjunction with IEEE 802.11 WLANs. There are some updates needed to make sure the word “Action” doesn’t appear in uses when discussing a specific frame such as “New IRM frame” or “Duplicate IRM frame”. Fields for those frames do need to contain the word “Action”. With that, the group agreed with the resolutions to the CIDs as found in [11-23/1392r05](https://mentor.ieee.org/802.11/dcn/23/11-23-1392-05-00bh-cid-7-21-114-resolutions-for-duplicate-irm.docx).

1. **Clause 6 editorials**

Joseph Levy (InterDigital) gave resolutions for CIDs 79 and 80, as given in [11-23/1536r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1536-00-00bh-cid-79-80-resolutions.docx). Both CIDs are resolved in principle with resolutions that are slightly different than those proposed by the commenter. Levy notes that there’s more than the device ID in the Device ID element, but he’s not sure whether we have to go beyond the device ID portion of the element. Some of this also comes down to if the MLME is building the element or just supplying the parameters that go in that element. The final revisions that were acceptable to the group are found in [11-23/1536r01](https://mentor.ieee.org/802.11/dcn/23/11-23-1536-01-00bh-cid-79-80-resolutions.docx).

1. **CRs for CIDs relevant to device ID part 1**

Jay Yang (ZTE) continued with comment resolutions found in [11-23/1316r07](https://mentor.ieee.org/802.11/dcn/23/11-23-1316-07-00bh-cr-for-cids-relevant-to-device-id-part-1.docx), starting with CID 133, which was previously deferred. Yang has received offline input that has caused him to rewrite the resolution to that CID, which notes some strange wording. Confusingly, the resolved text includes reference to MLD (from another CID that affects the same text), but that might change if IEEE 802.11be is excluded from the baseline for IEEE 802.11bh. The punctuation in the resolution is also confusing, but that will be left to the technical editor to amend. Yang will work on revising the resolutions that mention CID 133. These will be returned to at a later date. Yang continued with CID 91, the resolution of which points to the resolution to CID 105 (that does “shall not send a device ID means…”). Due to difficulty in reading the resolutions, the remainder of this set of resolutions are deferred.

1. **CID18 and CID111 Resolution for LB274**

Okan Mutgan (Nokia) presented his resolutions for CIDs 18 and 111 as found in [11-23/1427r00](https://mentor.ieee.org/802.11/dcn/23/11-23-1427-00-00bh-cid18-and-cid111-resolution-for-lb274.pptx). Both CIDs deal with communications and identification between non-AP STAs. These are for things like Wi-Fi Miracast and TDLS (tunnel direct-link setup). Mutgan gave a recap of how TDLS works, basically allowing two STAs that are associated with an AP to setup a link between each other so that they can communicate without passing traffic through the AP. The trick is that the STAs do not identify each other and RCM will complicate things. Mutgan is proposing to pass device ID or IRM elements in the TDLS Setup Request and Response Action frames so that the two STAs can recognize each other. The device ID and IRM that are used here are both STA generated for TDLS. There doesn’t really seem to be a need for both device IDs and IRMs given that they are both STA generated. Use of IRM only would be preferable because device ID is elsewhere only generated by the network. On a different point, Miracast shouldn’t necessarily require any special handling, but TDLS does. Protection of the identification in TDLS might be better done later in the TDLS protocol exchange to allow for better protection – TDLS itself can be run over open networks or WEP, which provide minimal protection. There’s also a question of how both sides know that IRM is mutually supported.

**Meeting recessed at 12:30 p.m.**

**Meeting September 14th, 2023, 8:00 a.m. to 10:00 a.m. EDT**

**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 8:01 a.m. EDT.**

Agenda slide deck [11-23/1341r04](https://mentor.ieee.org/802.11/dcn/23/11-23-1341-04-00bh-agenda-tgbh-2023-september-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:**
	+ September Interim meetings: Monday, 13:30-15:30; Tuesday, 13:30-15:30; Wednesday 10:30-12:30; Thursday 8:00-10:00
	+ Motions record: [11-22/0651r24](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-24-00bh-tgbh-motions-list.pptx)
* **Teleconference and November planning (slides 25,26)**
* **Motion on completed resolutions (**[**11-22/0651r24**](https://mentor.ieee.org/802.11/dcn/22/11-22-0651-24-00bh-tgbh-motions-list.pptx)**, Motion #21)**
* **Discussion on response to WBA liaisons:**
	+ [11-21/0703r0](https://mentor.ieee.org/802.11/dcn/21/11-21-0703-00-0000-2021-april-liaison-from-wba.docx), [11-21/1141r0](https://mentor.ieee.org/802.11/dcn/21/11-21-1141-00-00bh-excerpts-of-wba-document-wi-fi-id-scope.pptx), [11-22/0668r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0668-00-0000-liaison-statement-from-wba-re-wi-fi-devices-identification-group.pdf), [11-22/0653r0](https://mentor.ieee.org/802.11/dcn/22/11-22-0653-00-0000-2022-march-wba-whitepaper-re-device-identification.pdf)
	+ [11-23/0888r0](https://mentor.ieee.org/802.11/dcn/23/11-23-0888-00-00bh-wba-liaison-discussion.pptx) Stephen Orr
* **Comment Resolution**
1. **November Planning and Teleconferences**

Four meeting slots are planned during the November plenary session with the hope to complete comment resolution then. There will also be work on the delayed WBA liaison response.

Teleconferences are expected weekly on Tuesdays at 9:30. Currently, these will be September 26th, 3rd, 10th, 24th, 31st, and November 7th. October 17th may be added if there are task group officers available to convene the meeting, but there’s an expected conflict with a Wi-Fi Alliance meeting. October 3rd will be used solely for work on the WBA liaison response.

1. **Motion on completed resolutions**

The motion reads: ‘Move to approve the resolutions of LB274 comments, and incorporate the text changes into the P802.11bh draft, as indicated in [11-23/1152r19](https://mentor.ieee.org/802.11/dcn/23/11-23-1152-19-00bh-ieee-802-11bh-lb274-comments.xlsx) for CIDs marked “Ready for motion”:

* CIDs 155, 64, 66, 68, 69, 81, 147, 108, 228, 14, 179, 16, 175, 73, 7, 21, 114, 224, 135, 257, 79, 80.’

The motion was made by Jerome Henry (Cisco) and seconded by Carol Ansley (Cox Communications). The motion passed by unanimous consent.

1. **WBA Liaison Response**

Stephen Orr has not received any substantive inputs for the WBA liaison response. Based on that, Orr will generate a response that will be discussed during the October 3rd teleconference.

1. **CIDs 18 and 111 (client to client)**

Okan Mutgan presented his latest work on resolving CIDs 18 and 111, as found in [11-23/1427r02](https://mentor.ieee.org/802.11/dcn/23/11-23-1427-02-00bh-cid18-and-cid111-resolution-for-lb274.pptx). Device ID has been removed from the resolutions. IRM Action frames are now used instead of TDLS Action frames. These IRM Action frames are shown as flowing via the AP, but in fact must be sent within Data frames directly exchanged between the peer STAs after completion of the TDLS Setup. It’s a question as to whether the STAs use different IRM addresses between themselves and with the AP. IRMs are best not shared with more than one entity otherwise there’s a risk of spoofing. Duplicate IRM handling will also need to be added to the scheme presented here as well. Overall, it might be easier to use upper layer authentication then to rely on TDLS IRM authentication.

Mutgan ran a straw poll asking, “Do you think 802.11bh should address identification between two non-AP STAs using TDLS?” The result of the straw poll was 5/14/1/4 (Yes/No/Don’t care/Abstain).

1. **CR for CIDs relevant to device ID – part 1**

Jay Yang gave his updated resolution for CID 133 ([11-23/1316r08](https://mentor.ieee.org/802.11/dcn/23/11-23-1316-08-00bh-cr-for-cids-relevant-to-device-id-part-1.docx)) based on yesterday’s input. Lengthy discussion of the resolution finally arrived at acceptable instructions to the editor. The resolution also applies to CID 105. For CID 248, 246, and 174, the first part of the resolution given should probably be changed to just deleting the paragraph in question – it’s not clear why we need it at all. For the second part, Yang supplies a rewrite of the paragraph. This text implies that a new subclause might be needed to deal with the lifetime of device IDs and their management. These CIDs will be deferred until new text has been generated. Yang proposes that CIDs 247 and 13 are accepted in revised form. The resolution loses the concept of activation of the device ID, which needs to be added back.

**The meeting was adjourned at 10:00 a.m. EDT.**