IEEE P802.11  
Wireless LANs

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| IEEE P802.11bh/D3.0 Mandatory Draft Review (MDR) Report Response | | | | |
| Date: 2024-03-13 | | | | |
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**Abstract**

This document contains the TGbh response(s) to the report of the IEEE P802.11bh D3.0 Mandatory Draft Review.

r0: Initial draft

r1: Updated to capture TGbh consensus from Denver session

# Introduction

## Purpose of this document

This document is the report from the group of volunteers that participated in the P802.11bh/D3.0 mandatory draft review.

This document contains recommendations for changes to the P802.11bh draft to bring it into improved compliance to IEEE-SA and WG11 style.

The recommended changes need to be reviewed by TGbh and approved, or ownership of the issues taken by TGbh.

## Process / references

The MDR process is described in:

* [11-11/615r6](https://mentor.ieee.org/802.11/dcn/11/11-11-0615-06-0000-wg802-11-mec-process.doc) – WG802.11 MEC Process

And references:

* [11-09/1034r21](https://mentor.ieee.org/802.11/dcn/09/11-09-1034-21-0000-802-11-editorial-style-guide.docx) – 802.11 Editorial Style Guide

A setup meeting will be held with and review topics assigned to volunteers. The review comments from the volunteers will be compiled into this document.

## Acknowledgements

The 802.11 technical editors (Robert Stacey and Emily Qi) gratefully acknowledge the work and contribution of the members listed in the authors list.

# Findings

## Style

### Style Gude 2.1 – Frames

#### Style Guide 2.1.1 – Frame Format Figures

#### Style Guide 2.1.2 – Naming Frames

Emily

### Style Guide 2.2 – true/false

Emily

### Style Guide 2.3 – “is set to”

Joseph Levy

No findings of incorrect “is set to” or “set to” found in the draft.

### Style Guide 2.4 – Information Elements/Subelements

#### Style Guide 2.4.1 – Information Elements/subelements – Naming

Ross

No issues found.

#### Style Guide 2.4.2 – Definition Conventions

#### Style Guide 2.4.3 – Element Inclusion Conventions

Mark

No issues found.

### Style Guide 2.5 – Removal of functions and features

Not applicable

### Style Guide 2.6 – Capitalization

Ross

Page 24, line 23, please change “Wrapped data element” to “Wrapped Data element”.

Page 24, line 33, please change “Wrapped data element” to “Wrapped Data element”.

[Editors: accept]

### Style Guide 2.7 – Terminology: frame vs packet vs PPDU vs MPDU

Ross

No issues found.

### Style Guide 2.8 – Use of verbs & problematic words

#### normative, non-normative, ensure

Mark

P35.20 (12.2.12.1) has a “should” in the NOTE. ~~Replace this with “It is recommended that a STA not send …”~~

[Editors: Looks like linebreak is missing; add line break to separate sentence from NOTE]

P24.26 “PASN Encrypted Data element may be present” – normative verb in clause 9. (Note that 11az started this problem, with “Timeout Interval element may be present.”) Change this to “is optionally present”. Same thing at P24.38.

[Editors: accept]

P34.20, “can” in an (arguably) normative statement. Change it to “may”.

P37.44, “can” in an (arguably) normative statement. Change to “a device ID that, when sent over the air, will not expose the underlying device identity …”

P37.46, “can” in a normative statement. ~~Change to “may”.~~

Original:

For the purpose of creating a device ID that can be sent over the air without exposing the underlying device

identity, the procedure in Annex AD, or any procedure (including nothing if the device ID is encrypted), can

optionally be used by the AP to keep the device ID content private (opaque) from third parties.[141, 75]

Proposed New:

"An AP may use the procedure in Annex AD, or any procedure (including nothing if the device ID is encrypted), to keep the device ID content private (opaque) from third parties when sent over the air."

P50.58, “can” in a normative statement. ~~Change to “may”.~~

Just delete “that can be added”

P51.49, “can” in a statement that is not a statement of capability nor a reference to a normative statement elsewhere in the standard.. ~~Change to “might”.~~

“The AP might use different amounts of padding …”

[Editors: review with TG]

P35.15, “ensure” is an evil word. Replace with “For correct operation …” (since there is a “need to” later in the sentence).

P39.31, “ensure” is still an evil word. Replace with “To enhance STA privacy, “

P51.22, “ensure” still evil… ~~Replace with “validate”.~~

This identifier is checked to validate the received opaque identity is the current one

[Editors: accept]

#### Style Guide 2.8.1 – which/that

Joseph

[01] 35.45: Correct as follows: “When a non-AP STA sends a device ID to an AP, it shall use the device ID most recently received from any AP belonging to the same ESS .”

[Editors: accept]

[02] 38.46: Missing coma, correct as follows: “The non-AP STA may then respond with a New IRM frame (see 9.6.35.3 (New IRM)), which provides a new IRM to the AP.”

[Editors: accept]

[03] 39.23: Awkward and incorrect use of which: “When a A non-AP STA may send an Authentication frame, to any AP in an ESS, with the TA set to an IRM that it had previously provided to any AP in an ESS.

an AP in that ESS previously provided, The AP receiving the Authentication frame can then identify the non-AP STA before

association is started or completed.”

If a non-AP STA has previously provided an IRM to an AP in an ESS, and the non-AP STA sends an Authentication frame using that IRM as the TA to any AP in the ESS, then the AP receiving the Authentication frame is able to identify the non-AP STA before association is started or completed.

[Editors: TG to review changes along the lines suggested]

[04] 51.15: Incorrect use of which: “All APs in an ESS use the same tweak length for all opaque identifiers that are generated and parsed.” ~~Or “All APs in an ESS that generate and parse opaque identifiers use the same tweak length for all opaque identifiers.”~~

[Editors: accept]

#### Style Guide 2.8.2 – articles

Mark

#### Style Guide 2.8.3 – missing nouns

Roy

#### Style Guide 2.8.4 – unnecessary nouns

Roy

#### Style Guide 2.8.5 – unicast and multicast

Emily

### Style Guide 2.9 – Numbers

Edward

No findings.

### Style Guide 2.10 – Maths operators and relations

Edward

[01] Globally replace “-“ with endash for items “167-220” at 25.49, “2-255” at 28.55, “2-255” at 29.38, “2-220” at 30.33, “222-255” at 30.37, “2-255” at 31.41, and “<ANA>-255” at 40.16.

[Editors: accept]

### Style Guide 2.11 – Hyphenation

Edward

[01] 17.7: Replace “non-access-point” with “non-access point”.

[02] 17.15: Replace “non-access-point” with “non-access point”.

[Editors: accept]

### Style Guide 2.12 – References to SAP primitives

Mark

No issues found.

### Style Guide 2.13 – References to the contents of a field/subfield

### Style Guide 2.18 – Deprecation of subfield

Carol

### Style Guide 2.14 – MIB attributes

Mark

P49.52: “This attribute, when true, indicates that the STA implementation is capable of transmitting a device ID.” This makes it sound like a capability (“Implemented”) not “Activated”. Reword as, “indicates support for device ID operation.”

P49.64: “This attribute, when true at a non-AP STA, indicates that the STA implementation is capable of transmitting an IRM.” Like above, makes it sounds like a capability. Reword as, “indicates support for IRM operation at the STA.”

[Editors: accept]

### Style Guide 2.15 – Hanging Paragraphs

Emily

### Style Guide 2.16 – Abbreviations

Edward

[01] 26.33: Replace “0f” with “0F”.

[Editors: accept]

### Style Guide 2.17 – Format for code/pseudocode

Edward

No findings.

### Style guide 3 – Style applicable to specific Clauses

#### Definitions (Clause 3)

#### Mark

P17.15: Strictly speaking, “AP” has not been expanded in this definition. Change “to another AP” to “to another access point (AP)”.

[Editors: accept]

#### General Description (Clause 4)

#### Emily

#### Frame formats (Clause 9) – shall or may?

#### Edward

No findings

#### SAP interfaces (Clause 6)

Mark

No issues found (beyond those already noted in 2.1.8.1 of this document, above).

#### New top level clauses

Not applicable

#### Annex A – Bibliography

Not applicable

#### Annex B – PICS ###

Po-Kai

[01] Typically, each amendment has additional subclause to list the amendment feature on top of the list in IUT configuration. For example, B.4.39 Enhanced Broadcast Services (EBCS) features(11bc), B.4.39 Light communications (LC) features(11bb), B.4.38 NGV features(11bd), B.4.37 Enhanced positioning (Ranging) features(11az), etc. Perhaps, the right approach is to have high level “Identifying a non-AP STA with changing MAC address” in IUT configuration and move existing two rows in IUT configuration to additional subclause to list device ID and IRM.

TG agreement: we don’t have any configuration details for our new features, so we don’t need a B.4.x where those are listed. No change needed.

[Editors: TG to review]

[2] IUT configuration needs to have subclause number B.4.3

[Editors: accept]

[3] Need to update B.2.2 for acronym used in B.4. For example, insert “IRM identifiable random MAC address”.

[Editors: accept]

[4] For B.4.4.2, I think the item number is not under <ANA>. Please update the number to the latest unused number of revme D5.0.

[Editors: the editor chooses next available number]

#### Annex G – Frame exchange sequences

Not applicable

## ANA

Check for correct use of numbers against database.

Check names against database (update database if names have changed).

Robert Stacey

|  |  |  |  |
| --- | --- | --- | --- |
| **Resource** | **Ref** | **Value** | **Status** |
|  |  |  |  |

Additional Actions:

## MIB

Yongho Seok

The compiled MIB is embedded as the following.

[Embed MIB after compilation]

### Detailed proposed changes

* MIB Detail

# Collateral findings

# IEEE-SA MEC

|  |
| --- |
| **From:** Michelle Turner <[m.d.turner@ieee.org](mailto:m.d.turner@ieee.org)>  **Sent:** Monday, March 11, 2024 4:59 PM **To:** Stacey, Robert <[robert.stacey@intel.com](mailto:robert.stacey@intel.com)> **Cc:** Christy Bahn <[c.bahn@ieee.org](mailto:c.bahn@ieee.org)> **Subject:** MEC for 802.11bh    Please let this email serve as the MEC for IEEE P802.11bh.  This draft meets all editorial requirements and can proceed to ballot.  NOTE the Definitions clause needs editorial instructions. I assume they are being added. Therefore instructions need to be included before the final recirc.    --  Michelle Turner Senior Manager, Content Production and Management  IEEE Standards Association e-mail: [m.d.turner@ieee.org](mailto:m.d.turner@ieee.org) PH: +1 732 562 3825; FAX: +1 732 562 1571  Cell: +1 732 540 2992 |