IEEE P802.11
Wireless LANs

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| 802.11IEEE P802.11bc/D3.0 Mandatory Draft Review (MDR) Report |
| Date: 2022-05-09 |
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**Abstract**

This document contains the report of the TGbc Mandatory Draft Review.

r0: section headings

r1: volunteers added for most section

r2: Jonathan Segev update

r3: Peter Eccleisne update

# Introduction

## Purpose of this document

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

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

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

## Process / references

The MDR process is described in:

* 11-11/615r6 – WG802.11 MEC Process

And references:

* 11-09/1034r19 – 802.11 Editorial Style Guide

A setup meeting was held, and review topics identified and assigned to volunteers. The volunteers provided their review comments, which have been compiled into this document, with some editorial changes.

## Acknowledgements

The 802.11 technical editors (Robert Stacey and Peter Ecclesine) gratefully acknowledge the work and contribution of:

* Emily Qi
* Edward Au
* Jonathan Segev
* Yongho Seok
* Mark Hamilton

# Findings

## Style

### Style Gude 2.1 – Frames

Emily Qi

### Style Guide 2.2 – Naming Frames

Emily Qi

### Style Guide 2.2 – true/false

Jonathan Segev

Complies with style guide, no findings where identified.

### Style Guide 2.3 – “is set to”

Jonathan Segev

D3.0 P.46 L.1 *If the STA is an AP with dot11MultiBSSIDImplemented set to true and the Address 1 field is*

*set to the broadcast address, then this address is the transmitted BSSID.*

Change to:

*If the STA is an AP with dot11MultiBSSIDImplemented is equal to true and the Address 1 field is*

*equal to the broadcast address, then this address is the transmitted BSSID.*

D3.0 P.51 L.27 *The TBTT Information Field Type subfield identifies, together with the TBTT Information Length subfield,*

*the format of the TBTT Information field. It is set to 0 or 1. Values of 1, 2, and 3 are reserved.*

*The TBTT Information Length subfield, when the TBTT Information Field Type subfield is set to 0, is*

*interpreted as shown in Table 9-231 (TBTT Information field contents when TBTT Information Field Type*

*subfield set to 0).*

Change to:

*The TBTT Information Field Type subfield identifies, together with the TBTT Information Length subfield,*

*the format of the TBTT Information field. It is equal to 0 or 1. Values of 1, 2, and 3 are reserved.*

*The TBTT Information Length subfield, when the TBTT Information Field Type subfield is set to 0, is*

*interpreted as shown in Table 9-231 (TBTT Information field contents when TBTT Information Field Type*

*subfield set to 0).*

D3.0 P.52 L.117 *The TBTT Information Length subfield, when the TBTT Information Field Type subfield is set to 1, is interpreted as shown in Table 9-231a (TBTT Information field contents when TBTT Information Field Type*

*subfield set to 1).*

Change to:

 *The TBTT Information Length subfield, when the TBTT Information Field Type subfield is equal to 1, is interpreted as shown in Table 9-231a (TBTT Information field contents when TBTT Information Field Type*

*subfield set to 1).*

D3.0 P.56 L.12 *In case the Association Required bit in the Control field included in the same Enhanced Broadcast Services Tuple field is set to 1, the only allowed request method is through EBCS Content Request/Response frames, therefore the EBCS Content Request Frame bit is set to 1 and EBCS Request ANQP Element bit is set to 0..*

Change to:

*In case the Association Required bit in the Control field included in the same Enhanced Broadcast Services Tuple field is equal to 1, the only allowed request method is through EBCS Content Request/Response frames, therefore the EBCS Content Request Frame bit is set to 1 and EBCS Request ANQP Element bit is set to 0..*

D3.0 P.76 L.64 *The Negotiation Address subfield contains a MAC address if the Negotiation Address Type is set to 0.*

Change to:

*The Negotiation Address subfield contains a MAC address if the Negotiation Address Type is equal to 0.*

D3.0 P.77 L.1 *The format of the Negotiation Address subfield when the Negotiation Address Type is set to 1 is shown in Figure 9-909ax (Negotiation Address subfield format for a Negotiation Address Type of 1).*

Change to:

*The format of the Negotiation Address subfield when the Negotiation Address Type is equal to 1 is shown in Figure 9-909ax (Negotiation Address subfield format for a Negotiation Address Type of 1).*

D3.0 P91 L33 *An EBCS non-AP STA should include the Frame Count field in an EBCS UL frame that it transmits to*

*reduce the possibility of a successful replay attack. When the STA provides a frame count, the Frame Count field shall carry a value that is set to 1 in the first EBCS UL frame that the STA transmits and shall be incremented for each subsequent transmission of an EBCS UL frame.*

Change to:

*An EBCS non-AP STA should include the Frame Count field in an EBCS UL frame that it transmits to*

*reduce the possibility of a successful replay attack. When the STA provides a frame count, the Frame Count field shall carry a value that is set to 1 in the first EBCS UL frame that the STA transmits and shall be incremented for each subsequent transmission of an EBCS UL frame.*

D3.0 P.95 L.24 *if the Frame Signature Type subfield of the EBCS UL frame is set to a nonzero value, then one of the following public key algorithms is used to generate the frame signature.*

*— RSASSA-PSS*

*— ECDSA*

*— Ed25519*

Change to:

*if the Frame Signature Type subfield of the EBCS UL frame is equal to a nonzero value, then one of the following public key algorithms is used to generate the frame signature.*

*— RSASSA-PSS*

*— ECDSA*

*— Ed25519*

Other (not related to “is set to”):

D3.0 P.46 L.53 the highlighted reference has a typo *The HT Control field is defined in 4.2.4.6 (HT Control field).The presence of the HT Control field is*

*determined by the +HTC subfield of the Frame Control field, as specified in 9.2.4.1.10 (+HTC subfield).*

Should be 9.2.4.6.

### Information Elements/Subelements

Edward Au

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

#### Style Guide 2.4.2 – Definition Conventions

#### Style Guide 2.4.3 – Element Inclusion Conventions

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

Jonathan Segev

Complies with style guide, no findings where identified.

### Style Guide 2.6 – Capitalization

Edward Au

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

Edward Au

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

#### normative, non-normative, ensure

#### which/that

#### articles

#### missing nouns

#### unnecessary nouns

#### unicast and multicast

### Style Guide 2.9 – Numbers

Edward Au

### Style Guide 2.10 – Maths operators and relations

Edward Au

### Style Guide 2.11 – Hyphenation

Edward Au

### Style Guide 2.12 – References to SAP primitives

Peter Eccelsine

No issue found

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

Emily Qi

### Style Guide 2.14 – References to MIB variables/attributes

Jonathan Segev

D3.0 P.109 L.38 *dot11EBCSRelayingServiceSupported TruthValue,*

Change to:

*dot11EBCSRelayingServiceImplemented TruthValue* andall of usages of the MIB change to reflected the name modification refer to 11-15-0355 section 3 patterns (3.1 dot11xxx implemented Static implementation capability. Also consider other option *dot11EBCSRelayingServiceActivated* if the variable is intended to be dynamically changing.

D3.0 P.111 L.65 *dot11EBCSTIMInBeacon … This attribute when true, indicates that the EBCS TIM element is included in the Beacon*

*frame.* – this is a dynamic capability control variabgle and hence name should include an Activated suffix; refer to 11-15-355r13 clause 3.2 dot11xxxActivated Dynamically operational capability.

Change to:

*dot11EBCSTIMInBeaconAcitvated* andalign all uses of the variable in the draft accordingly.

D3.0 P.112 L.63 *dot11EBCSTrafficStreamBufferable*

According to its definition: *This variable, when true, the EBCS traffic stream is buffered and transmitted*

*in EBCS DTIM period.* Hence this variable is a dynamic capability and should have an Activated suffix.

Change to: *dot11EBCSTrafficStreamBufferableActivated* andalign all uses of the variable in the draft accordingly.

D3.0 P.112L.64 *dot11EBCSTrafficStreamEnabled*

According to its definition: *“This variable, when false, indicates that the EBCS receiver filters the*

*EBCS traffic stream.”* Hence this variable is a dynamic capability and should have an Activated suffix.

Change to: *dot11EBCSTrafficStreamActivated* and align all uses of the variable in the draft accordingly.

### Style Guide 2.15 – Hanging Paragraphs

Emily Qi

### Style Guide 2.16 – Abbreviations

Edward Au

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

N/A

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

#### Definitions (Clause 3)

Peter Ecclesine

**enhanced broadcast services (EBCS) Info MAC Address: and**

**enhanced broadcast services (EBCS) Content MAC Address:**

MAC addressing should refer to **11.55.2** **EBCS Addressing,** not 11.55.1a

#### General Description (Clause 4)

Peter Ecclesine

No issues noted

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

Emil Qi

#### SAP interfaces (Clause 6)

Mark Hamilton

#### New top level clauses

#### Annex A – Bibliography

Not applicable. There are neither normative nor informative references.

#### Annex B – PICS

#### Annex G – Frame exchange sequences

N/A

## ANA

Check for correct use of numbers against database.

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

Robert Stacey

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| --- | --- | --- | --- |
| **Resource** | **Value** | **Name** | **Status** |
|  |  |  |  |
|  |  |  |  |
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Additional Actions:

## MIB

Conformance to 09/533r1 and 15/355r13

The compiled MIB is embedded as the following. Please refer the proposed changes in the following section to fix errors.

Yongho Seok

### Detailed proposed changes

* MIB Detail

# Collateral findings

# IEEE-SA MEC

At the time of writing this report, the IEEE-SA mandatory editorial coordination (MEC) is ongoing. When complete, the findings will be added to this report.

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