IEEE P802.11
Wireless LANs

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| 802.11IEEE P802.11REVme/D3.0 Mandatory Draft Review (MDR) Report |
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**Abstract**

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

r0: section headings.

R1: volunteer names added

R2: ANA check

R3: Unicast/multicast (Roy Want). First batch of Edward’s findings.

R4: Added Carol’s findings.

R5: Added Emily’s findings.

R6: Added Claudio’s findings and MEC report.

R7: Comments from telecon review.

R8: Additional findings from Edward.

R9: Provided TGme Editor’s recommendations, see [TGme Editor].

R10: Yongho’s input on MIB.

R11: Joeseph’s input on set to. Highlighted editor actions. Unhighlighted everything else.

R12: Updates from 11 July Editors meeting.

R13: Provided TGme Editor’s recommendations, see [TGme Editor P2].

R14: Added Implementation notes by TGme Editors.

# Introduction

## Purpose of this document

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

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

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

## 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:

* [11-09/1034r20](https://mentor.ieee.org/802.11/dcn/09/11-09-1034-20-0000-802-11-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 editor (Robert Stacey) gratefully acknowledges the work and contribution of:

* Claudio da Silva
* Carol Ansley
* Emily Qi
* Edward Au
* Joseph Levy
* Roy Want
* Brian Hart
* Yongho Seok

# Findings

## Style

### Style Gude 2.1 – Frames

### Style Guide 2.1.1 – Frame Format Figures

Claudio

11ay amendment introduced a number of “Variable”s into the standard (change “Variable” to “variable”): Page 1401, line 17; page 1421, line 27; page 1436, line 14; page 1444, lines 23 and 60; page 1463, line 19, and a few others.

[Robert: OK. Change for consistency.]

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

11ay amendment introduced a number of figures with bit label positions that are not properly justified: page 675, line 48; page 676, line 48; page 678, lines 33, 46, 56; and a few others.

[Robert: OK. At editors discretion.]

[TGme Editor] No change. Editor tried to align them before.

Page 603, line 22: The bit position should always start with B0.

[Robert: agree. Might want to check that there are no references to absolute bit positions, e.g., B1]

Action: No change to draft. Bring as future comment.

[TGme Editor] No change. – Assigned to Emily to bring a comment in SB.

Page 605, line 29: Thickness rows/columns is not correct

[Robert: at the editor’s discretion]

[TGme Editor] change as suggested.

Emily: Couldn’t see the problem. It looks good to me.

Page 615, line 51: Title could possibly be written in 1 line

[Robert: at the editor’s discretion]

[TGme Editor] No change. It cannot be fitted in 1 line.

Page 632, lines 39 and 56 and page 633, lines 9, and 24: Thickness rows/columns is not correct

[Robert: at the editor’s discretion]

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 642, line 46 and page 649, line 22: Repeating fields should be avoided. Arrows should not be used. Suggest creating a container field with “List” in the name.

[Robert: agree but since this is legacy text we might change through comment resolution process]

Action: Resolve through comment resolution process.

[TGme Editor] No change. – Assigned to Emily to bring a comment in SB.

Page 669, lines 33 and 52: The bit position should always start with B0. Justification of bit labels is also incorrect.

[Robert: agree]

Action: Fix both figures.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 674, line 12: Bit labels missing

[Robert: agree]

Emily: Implemented in D4.0

Page 739, line 54 and page 740, line 10: Text in between two parts of the figure

[Robert: should fix]

Action: fix.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 740, line 28: Inconsistent thickness rows/colums

[Robert: at the editor’s discretion]

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 748, line 51: Number of bits line is missing

[Robert: agree]

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 906, line 25: “Data field format of the Measurement Configuration subelement format” (confirm)

[Robert: It is the format of the Data field that is defined, so “Data field format of the Measurement Configuration subelement”]

Emily: Implemented in D4.0

Page 907, line 25: “Data field format of the Extended Measurement Configuration subelement format” (confirm)

[Robert: It is the format of the Data field that is defined, so “Data field format of the Extended Measurement Configuration subelement"]

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 957, line 44: “Data field format of the Measurement Configuration subelement format” (confirm)

[Robert: It is the format of the Data field that is defined, so “Data field format of the Measurement Configuration sublement”]

Action: Fix previous 3 issues as suggested.

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1072, line 60: Wrong bit labelling (B2-B7)

[Robert: I think you mean use of dash instead of space. At the editor’s discretion.]

Emily: Implemented in D4.0

Page 1104, line 24: n and m should be in italic

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1248, line 28: Thickness of inner columns is not correct

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1282, line 54: Thickness of inner columns is not correct

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1283, line 10: Thickness of inner columns is not correct

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1411, line 62: Bit labels missing

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1427, line 53: Bit labels missing

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1475, line 36: (1) Variable -> variable; (2) Is “from WUR AP” needed/clear? Replace with “when/if sent by an WUR AP”?

[Robert: change to “WUR Parameters field format if sent by a WUR AP”]

Action: correct as suggested

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1478, line 6: Is “from WUR non-AP STA” needed/clear? Replace with “when/if sent by an WUR non-AP STA”?

[Robert: Change to “WUR Parameters field format if sent by a WUR non-AP STA”]

Action: correct as suggested

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1756, line 58: (1) “format” missing; (2) Is “of WUR Wake-up frame” needed?

[Robert: change to “Type Dependent Control field format” (delete frame reference)]

Action: correct as suggested.

TGme Editor] change as suggested.

Emily: Implemented in D4.0

Page 1758, line 39: Field -> field

[Robert: agree]

Action: as suggested.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

### Style Guide 2.1.2 – Naming Frames

Claudio

On-going. Did not identify any issues so far.

### Style Guide 2.2 – true/false

Carol

P506, L31, should be “true, false”

P509, L6, should be “true, false”

[Robert: agree, lowercase 2x]

Action: change as suggested.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

### Style Guide 2.3 – “is set to”

Joseph

There are multiple location where "is set to" is used to refer to the value of a field, element, or sub-element that is being tested. The 802.11 editorial style guide states that such a test should use "is equal to" or “is” and not "is set to". The following changes use the simpler form “is” and not the more verbose “is equal to”.

[TGme Editor P2] Change as suggested in this section (subject to further review by the editors).

Make the following changes at the following location (page.line):

1842.1 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

1881.57 - replace "is set to" with "is" and replace "contained a value of 1" with "are 1"

1881.61 - replace "is set to" with "is" and replace "contained a value of 1" with "are 1"

1882.1 - replace "is set to" with "is" and replace "contained a value of 1" with "are 1"

1882.4 - replace "is set to" with "is" and replace "contained a value of 1" with "are 1"

Emily: replaced "is set to" with "is equal to". Implemented in D4.0 .

1882.60 - replace "is set to" with "is" and replace "is equal to 1" with "is 1"

1883.1 - replace "is set to" with "is" and replace "is equal to 1" with "is 1"

1883.5 - replace "is set to" with "is" and replace "is equal to 1" with "is 1"

1883.8 - replace "is set to" with "is" and replace "is equal to 1" with "is 1"

Emily: replaced "is set to" with "is". Implemented in D4.0 .

1911.11 – reword “If the Duration field in a frame carried in an HE TB PPDU is set to 0, the HE TB PPDU shall not include any frames that solicit a control response frame from the AP.” to be: "An HE TB PPDU carrying a frame with a Duration field equal to 0 shall not include any frames that solicit a control response frame from the AP." Editorial note it may be clearer to replace "a frame" with "an MPDU" and "frames" with "MPDUs"..

1925.12 – reword: “All ACs with priority higher than that of an AC for which the ACM subfield is set to 1 should have the ACM subfield set to 1.“ to be: "All ACs with priority higher than an AC for which the ACM subfield is 1 should set the ACM subfield to 1."
Note: Question is this really a “should” or would “shall” be better.

Action (Joseph): submit this one as a comment for above two items

[TGme Editor P2] No change for this item. Assigned this item to Joseph to submit a comment in SB.

1930.61 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

1950.51 - replace "When the Block Ack Policy subfield value is set to 1 by the originator of an ADDBA Request frame between HT STAs, then the ADDBA Response frame accepting the ADDBA Request frame shall contain 1 in the Block Ack Policy subfield." with "When the Block Ack Policy subfield value is 1 in an ADDBA Request frame, the responding HT STA shall set the Block Ack Policy subfield to 1 in the ADDBA Response frame accepting the ADDBA Request frame.

Emily: Implemented in D4.0 .

1951. 64 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

1952.33 - replace "if the MPDU Modulo subfield is set to a value greater than 9; in this case,” with “, if the MPDU Modulo subfield is grater than 9”

Emily: Implemented in D4.0 .

2045.34 – replace “— APEP\_LENGTH set to 0 if AGGREGATION is set to AGGREGATED” with “— APEP\_LENGTH is set to 0 if AGGREGATION is AGGREGATED”

2045.36 – replace “— PSDU\_LENGTH set to 0 if AGGREGATION is set to NOT\_AGGREGATED” with “— PSDU\_LENGTH is set to 0 if AGGREGATION is NOT\_AGGREGATED”

Emily: Implemented in D4.0 . changed to “is equal to”.

2155.39 - replace "is set to” with "is”

Emily: Implemented in D4.0

2192.13 – replace “is set to” with “is”

Emily: Implemented in D4.0 .

2192.16 - replace "is set to a nonzero value" with "is a nonzero value"

Emily: Implemented in D4.0 .

2192.55 - replace ""is set to 0" with "is 0”

Emily: Implemented in D4.0 .

2192.58 - replace "is set to a nonzero value" with "is a nonzero value"

Emily: Implemented in D4.0 .

2195.48 - replace ""is set to 0" with "is 0”

Emily: Implemented in D4.0 .

2195.50 - replace "is set to a nonzero value" with "is a nonzero value"

Emily: Implemented in D4.0 .

2201.29 - replace ""is set to 0" with "is 0”

Emily: Implemented in D4.0 .

2203.59 - replace "is set to a value larger" with "is a value larger"

Emily: Implemented in D4.0 . changed to “is larger than”.

2210.59 - replace ""is set to 0" with "is 0”

Emily: Implemented in D4.0 .

2201.29 – replace “is set to” with “is”

Emily: Implemented in D4.0 .

2210.61 - replace "If the ComeBack Delay field is set to a nonzero value,” with: "If the ComeBack Delay field is a nonzero value,”

Emily: Implemented in D4.0 .

2265.6 - replace "is set to 0" with "is 0”

Emily: Implemented in D4.0 .

2280.14 – replace: “When management frame protection is not negotiated or the Extended S1G Action Protection field in the RSNXE transmitted by either STA is set to 0,“ with: “When management frame protection is not negotiated or the Extended S1G Action Protection field is 0 in the RSNXE transmitted by either STA,”

Emily: Implemented in D4.0 .

2290.44 – replace “is set to 1” with “is 1”

Emily: No change.

2293.20 – replace: “When management frame protection is not negotiated or the Extended S1G Action Protection field in the RSNXE transmitted by either STA is set to 0,” with: : “When management frame protection is not negotiated or the Extended S1G Action Protection field is 0 in the RSNXE transmitted by either STA,”

Emily: Implemented in D4.0 .

2295.1 – replace: “— The switching from an omnidirectional beam transmission to a sectorized beam transmission occurs when the bit position corresponding to the sector is set to 1 in the TXVECTOR parameter SECTOR\_ID.”

With: “— The switching from an omnidirectional beam transmission to a sectorized beam transmission occurs when the bit position corresponding to the sector is 1 in the TXVECTOR parameter SECTOR\_ID.”

Emily: Implemented in D4.0 .

2450.8 – replace: “The default value is set to 10 TUs.” with: “The defaule value is 10 TUs.”

Emily: Implemented in D4.0 .

2450.9 – replace: “The default value is set to 8 beacon intervals.” with: “The default value is 8 beacon intervals.”

Emily: Implemented in D4.0 .

2450.12 – replace: “The default value is set to 256 beacon intervals.” with: “The default value is 256 beacon intervals.”

Emily: Implemented in D4.0 .

2584.20 - replace "is set to 0" with "is 0"

Emily: Implemented in D4.0 .

2584.20 - replace " is set to 1" with "is 1"

Emily: Implemented in D4.0 .

2585.53 - replace " is set to 1" with "is 1"

Emily: Implemented in D4.0 .

2589.25 - replace "When the ASAP subfield is set to 0 by a responding STA, …” with "When the received ASAP subfield is 0, …”

2589.29 – replace “When the ASAP subfield is set to 1 by a responding STA, …” with “When the received ASAP subfield is 1, …”

Joseph to submit a comment for above two items. I am not sure about those changes.

2609.6 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

2629.60 - replace "is set to true" with "is true"

Emily: Implemented in D4.0 .

2688.16 - replace " is set to" with "is"

Emily: Implemented in D4.0 .

2753.55 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

2753.56 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

2764.45 – replace: “When management frame protection is not negotiated or the Extended S1G Action Protection field in the RSNXE transmitted by either STA is set to 0,“ with: “When management frame protection is not negotiated or the Extended S1G Action Protection field is 0 in the RSNXE transmitted by either STA,”

Emily: Implemented in D4.0 .

2779.13 - replace "is set to 0" with "is 0"

Emily: Implemented in D4.0 .

2790.23 - replace “is set to” with “is”

Emily: Implemented in D4.0 .

2989.47 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3026.33 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3055.14 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3102.34 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3102.38 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3105.7 - replace "When dot11MeshDelayedBeaconTxInterval is set to nonzero value,” with “When dot11MeshDelayedBeaconTxInterval is a nonzero value,”

3107.8 – replace “When the Power Management subfield in the Frame Control field is set to 1,” with “When the Power Management subfield in the Frame Control field is 1,”

Emily: Implemented in D4.0 .

3107.10 – replace “When the Power Management subfield in the Frame Control field is set to 0,” with “When the Power Management subfield in the Frame Control field is 0,”

Emily: Implemented in D4.0 .

3111.23 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3350.65 - replace "If the SCRAMBLER\_RESET parameter is set to RESET\_SCRAMBLER,” with "If the SCRAMBLER\_RESET parameter is RESET\_SCRAMBLER,”

Emily: Implemented in D4.0 .

3358.24 – replace “If this field is set to 1,” with “If this field is 1,”

Emily: Implemented in D4.0 .

3359.2 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3395.57 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3402.35 - replace "is set to" with "is" (for both occurrences in the line)

Changed to “is equal to”

Emily: Implemented in D4.0 .

3526.26 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

3616.29 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3623.22 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3624.33 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3630.27 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3630.32 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3651.8 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3651.9 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3651.31 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3651.33 - replace "is set to" with "is”

Emily: Implemented in D4.0 .

3703.47 - replace “is set to” with “is”

Emily: Implemented in D4.0 .

4032.28 - replace "is set to" with "is"

Emily: Implemented in D4.0 .

4244.5 - replace "if the CHANNEL\_AGGREGATION parameter is set to AGGREGATE," with "if the CHANNEL\_AGGREGATION parameter is AGGREGATE,"

4244.15 - replace "if the CHANNEL\_AGGREGATION parameter is set to AGGREGATE," with "if the CHANNEL\_AGGREGATION parameter is AGGREGATE,"

Emily: Implemented in D4.0 . Changed to “equal to”.

4262.48 - replace "is set to" with "is"

4262.56 - replace "is set to" with "is"

4262.58 - replace "is set to either" with "is either"

4262.60 - replace "is set to the" with "is"

4263.39 - replace "is set to the" with "is"

4263.42 - replace "is set to" with "is"

4263.42 - replace "is set to either" with "is either"

4263.48 - replace "is set to the" with "is"

4263.51 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “equal to”.

4263.58 - replace "is set to 1" with "is 1"

Emily: Implemented in D4.0 .

4263.61 - replace "is set to 0" with "is 0"

Emily: Implemented in D4.0 .

4281.29 - replace "is set to 1" with "is 1"

4281.31 - replace "is set to 0" with "is 0"

Emily: No change for those two items. In this use, the verb “set” is used when describing how a field obtains a value.

4282.35 - replace "is set to 1" with "is 1"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4285.32 - replace "is set to 1" with "is 1"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4286.9 - replace "is set to 0" with "is 0"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4286.14 - replace "is set to 1" with "is 1"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4286.31 - replace "is set to 1" with "is 1"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4293.16 - replace "is set to 1" with "is 1"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4314.44 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4315.54 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4315.59 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4316.11 - replace "is set to 0" with "is 0"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4316.13 - replace "is set to 1" with "is 1"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4318.11 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4318.15 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4322.29 - replace "is set to" with "is"

Emily: Implemented in D4.0 . Changed to “is equal to”.

4391.5 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.9 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.15 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.16 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.17 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.23 - replace "is set to" with "is"

Emily: Implemented in D4.0

4391.28 - replace "is set to" with "is"

Emily: Implemented in D4.0. Changed to “is equal to”.

4432.38 - replace "is set to" with "is"

Emily: Implemented in D4.0. Changed to “is greater than”.

4433.37 - replace "is set to" with "is"

Emily: Implemented in D4.0. Changed to “is equal to”.

4434.62 - replace "is set to" with "is"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4435.8 - replace "is set to" with "is"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4435.11 - replace "is set to" with "is"

Emily: No change. In this use, the verb “set” is used when describing how a field obtains a value.

4435.54 - replace "is set to" with "is"

Emily: Implemented in D4.0. Changed to “is greater than”.

4437.1 - replace "is set to" with "is"

4437.12 - replace "is set to" with "is"

4437.33 - replace "is set to" with "is"

4437.48 - replace "is set to" with "is"

Emily: Implemented in D4.0. Changed to “is equal to”.

4548.45 - replace "is set to" with "is"

Emily: Implemented in D4.0.

Note: these proposed changes provide a change only where “is set to” is used in a “test” (~124 instances), there are a total of 2790 uses of “is set to” in the draft.

Action: as suggested (subject to further review by the editors)

[TGme Editor P2] Change as suggested in this section (subject to further review by the editors).

### Style Guide 2.4 – Information Elements/Subelements

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

#### Emily

No findings

#### Style Guide 2.4.2 – Definition Conventions

Emily

1414.21, there is no Channel Allocation field in figure 9-923. In figure 9-923, Channel Allocation 1 to Channel Allocation N fields are defined.

At 1414.21, change “Each Channel Allocation field starts with …” to “Each Channel Allocation *i* field (1 ≤ *i* ≤ N) starts with …”

[Robert: OK]

Action: as suggested.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0

1512.3, change “The format of a Credential Types Tuple subfield” to “The format of the Credential Types Tuple subfield”.

[Robert: definite article OK. Consider also using “defined” instead of “shown”; the figure is the format definition.]

Action: as suggested.

[TGme Editor] change as suggested.

Emily: Implemented in D4.0: changed the article. No change to “shown” since in D3.1 “shown” is used for the description of a figure in clause 9.

#### Style Guide 2.4.3 – Element Inclusion Conventions

Emily

1421.51: do not list the frames that carry the element as part of element definition.

Delete “ The EDMG Group ID Set element is transmitted in DMG Beacon frames, Announce frames or MIMO BF Selection frames.”

[Robert: agree]

Action: as suggested

Emily: Implemented in D4.0

1474.49, change “NOTE” to “NOTE 1”.

1474.62, change “NOTE” to “NOTE 2”.

Emily: Implemented in D4.0

1106.30, delete “ The FMS Request element is included in FMS Request frames, as described in 9.6.13.11 (FMS Request frame format).”

[Robert: agree]

Action: as suggested

Emily: Implemented in D4.0

1109.4, delete “The FMS Response element is included in FMS Response frames, as described in 9.6.13.12 (FMS Response frame format).”

[Robert: agree]

Action: as suggested

Emily: Implemented in D4.0

1110.19, delete “The QoS Traffic Capability element is included in Beacon frames, as described in 9.3.3.2 (Beacon frame format); Probe Response frames, as described in 9.3.3.10 (Probe Response frame format); Association Request frames, as described in 9.3.3.5 (Association Request frame format); and Reassociation Request frames, as described in 9.3.3.7 (Reassociation Request frame format).”

[Robert: agree]

Action: as suggested

Emily: Implemented in D4.0

1113.24, delete “The TFS Request element is included in TFS Request frames, as described in 9.6.13.15 (TFS Request frame format), and WNM Sleep Mode Request frames, as described in 9.6.13.19 (WNM Sleep Mode Request frame format).”

[Robert: agree]

Action: as suggested

Emily: Implemented in D4.0

1114.55, delete “The TFS Response element is included in TFS Response frames, as described in 9.6.13.16 (TFS Response frame format), and WNM Sleep Mode Response frames, as described in 9.6.13.20 (WNM Sleep Mode Response frame format).”

Emily: Implemented in D4.0

1116.7, delete “The WNM Sleep Mode element is included in WNM Sleep Mode Request frames, as described in 9.6.13.19 (WNM Sleep Mode Request frame format), and WNM Sleep Mode Response frames, as described in 9.6.13.20 (WNM Sleep Mode Response frame format).”.

Emily: Implemented in D4.0

1116.35, delete: “The TIM Broadcast Request element is included in TIM Broadcast Request frames, as described in 9.6.13.21 (TIM Broadcast Request frame format); Association Request frames, as described in 9.3.3.5 (Association Request frame format); and Reassociation Request frames, as described in 9.3.3.7(Reassociation Request frame format).”.

Action: as suggested

Emily: Implemented in D4.0

1117.39, delete: “The TIM Broadcast Response element is included in TIM Broadcast Response frames, as described in 9.6.13.22 (TIM Broadcast Response frame format); Association Response frames, as described in 9.3.3.6 (Association Response frame format); and Reassociation Response frames, as described in 9.3.3.8 (Reassociation Response frame format).”.

Action: as suggested

Emily: Implemented in D4.0

1120.33, delete: “The Channel Usage element can be included in Probe Request frames, as described in 9.3.3.9 (Probe Request frame format); Probe Response frames, as described in 9.3.3.10 (Probe Response frame format); Channel Usage Request frames, as described in 9.6.13.24 (Channel Usage Request frame format); andChannel Usage Response frames, as described in 9.6.13.25 (Channel Usage Response frame format).”

Action: as suggested

Emily: Implemented in D4.0

[TGme Editor] Accept all proposed changes in this section.

Emily: Implemented in D4.0

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

Edward

As per Section 2.5 of the IEEE 802.11 editorial guideline, “Functions and features described in the published 802.11 standard shall not be removed unless they have been marked “obsolete and subject to removal in a subsequent revision of this standard.” in a previous revision.”.

[01] The use of the dual beacon mechanism was marked “obsolete” in IEEE 802.11-2020. Please remove all the materials related to the dual beacon mechanism from REVme.

[02] The use of the dual CTS protection mechanism was marked “obsolete” in IEEE 802.11-2020. Please remove all the materials related to the dual CTS protection mechanism from REVme.

[03] The use of RIFS for a non-DMG STA was marked “obsolete” in IEEE 802.11-2020. Please remove all the materials related to the use of RIFS for a non-DMG STA from REVme.

[04] The DMG low-power SC mode was marked “obsolete” in IEEE 802.11-2020. Please remove all the materials related to the DM low-power SC mode from REVme.

[05] The CDMG low-power SC mode was marked “obsolete” in IEEE 802.11-2020. Please remove all the materials related to the CDM low-power SC mode from REVme.

[Robert: The requirement is for notice, not for timely removal. I suggest we do this through comment resolution]

Action: Do not remove now; do through comment resolution.

[TGme Editor] No change in this section review.

### Style Guide 2.6 – Capitalization

Edward

[TGme Editor] Accept all proposed changes in this section.

[01] Figure 10-140: Replace “DTIM Beacon frame” with “DTIM beacon”.

[02] 3037.1: Replace “peering Management frame body” with “peering management frame body”.

Edward: Implemented in D4.0

[03] 3037.10: Replace “peering Management frame body” with “peering management frame body”.

Edward: Implemented in D4.0

[Robert: I need to catch up. Did we decide that Management frame (generic reference) is uncapitalized? Ditto for Data frame, Control frame?]

[04] 4787.6: Replace “Protected mesh peering Management frame processing” with “Protected mesh peering management frame processing”.

Edward: Implemented in D4.0

[05] 5492.43: Replace “QoS Management Frame functionality” with “QoS management frame functionality”

Edward: Implemented in D4.0

[06] 910.54: Replace “The Subelement IDs for subelements in the Fine Timing Measurement Range request” with “The subelement IDs for subelements in the Fine Timing Measurement Range Request element”

Edward: Implemented in D4.0

[07] 947.46: Replace “The Subelement ID is equal” with “The Subelement ID field is equal”.

Edward: Implemented in D4.0

[08] 1127.25: Replace “The U-APSD coexistence element provides” with “The U-APSD Coexistence element provides”.

Edward: Implemented in D4.0

[09] Figure 9-1174: Replace “Transmit Power Envelope element (optional)” with “Transmit Power Envelope Element (optional)”.

Edward: Implemented in D4.0

[10] 2371.13: Replace “NDP Feedback Report Parameter set element” with “NDP Feedback Report Parameter Set element”.

Edward: Implemented in D4.0

[11] 2504.59: Replace “Measurement request element” with “Measurement Request element”.

Edward: Implemented in D4.0

[12] 869.49: Replace “The Requested Element IDs are” with “The Requested Element IDs field is”.

Edward: Implemented in D4.0

[13] 869.50: Replace “The Requested Element IDs are” with “The Requested Element IDs field is”.

Edward: Implemented in D4.0

[14] 869.51: Replace “The Requested Element IDs” with “The Requested Element IDs field”.

Edward: Implemented in D4.0

[15] 869.54: Replace “A given element ID is included at most once among the Requested Element IDs” with “A given element ID is included at most once among the Requested Element IDs field”.

[Robert: also “among” -> “in”]

Edward: Implemented in D4.0

Action: as suggested.

[16] 870.21: Replace “The Requested Element ID field contains one of the Element IDs used to indicate an extended element” with “The Requested Element ID field contains one of the element IDs used to indicate an extended element”.

[Robert: error in field name; should be “Requested Element IDs field”]

Action: Emily to check. Likely as suggested.

[Emily]: at 870.21, it is “The Requested Element ID field”, not “s”. The reviewer is correct.

Edward: Implemented in D4.0

[17] 955.8: Replace “The Subelement ID is equal to” with “The Subelement ID field is equal to”.

Edward: Implemented in D4.0

[18] 1356.16: Replace “Element ID values are in increasing order” with “Element ID subfield values are in increasing order”.

Edward: Implemented in D4.0

[19] 1356.32: Replace “Element ID Extension values are in increasing order” with “Element ID Extension subfield values are in increasing order”.

Edward: Implemented in D4.0

[20] 1356.34: Replace “have an Element ID value of 255” with “have an element ID value of 255”.

Edward: Implemented in D4.0

[21] 2351.1 to 2351.13: Replace “Element ID (Extension)” with “element ID (extension)”.

Edward: Implemented in D4.0

[22] 3103.54: Replace “A mesh STA may set the Status Code” with “A mesh STA may set the Status Code field”.

Edward: Implemented in D4.0

[23] 4904.22: Replace “This attribute holds the most recently transmitted Status Code” with “This attribute holds the most recently transmitted Status Code field”.

[Robert: “…recently transmitted Status Code field value”]

Edward: Implemented in D4.0

[23] 4910.34: Replace “This attribute holds the most recently transmitted Status Code” with “This attribute holds the most recently transmitted Status Code field”.

Edward: Implemented in D4.0

[24] 4911.24: Replace “This attribute holds the most recently transmitted Status Code” with “This attribute holds the most recently transmitted Status Code field”.

Edward: Implemented in D4.0

[25] 1570.40: Replace “the Status Code is REQUEST\_DECLINED” with “the Status Code field is REQUEST\_DECLINED”.

Edward: Implemented in D4.0

[26] 938.17: Replace “STA Floor Number values” with “STA Floor Number field values”.

Edward: Implemented in D4.0

[27] 2084.51: Replace “is Poll transmission” with “is poll transmission”.

Edward: Implemented in D4.0

[28] 1164.34: Replace “The EDCA Access Factor is expressed as” with “The EDCA Access Factor field is expressed as”.

Edward: Implemented in D4.0

[29] 1164.34: Replace “When the EDCA Access Factor is greater than” with “When the EDCA Access Factor field value is greater than”.

Edward: Implemented in D4.0

[30] 4581.47: Replace “The WUR PN Update procedure” with “The WUR PN update procedure”.

Edward: Implemented in D4.0

[31] 1135.14: Replace “The Alert Identifier Hash (AIH) contains” with “The Alert Identifier Hash field contains”. Note that I delete “(AIH)” because abbreviation is not allowed for a field’s name.

Edward: Implemented in D4.0

[32] 2649.59: Replace “The Emergency Alert Identifier element provides an Alert Identifier Hash value,” with “The Emergency Alert Identifier element provides an Alert Identifier Hash field value,”.

Edward: Implemented in D4.0

[33] 2649.60: Replace “The Alert Identifier Hash value allows” with “The Alert Identifier Hash field value allows”.

Edward: Implemented in D4.0

[34] 2650.10: Replace “The Alert Identifier Hash in the Emergency Alert Identifier element” with “The Alert Identifier Hash field in the Emergency Alert Identifier element”.

Edward: Implemented in D4.0

[35] 2650.14: Replace “After receiving an Alert Identifier Hash value” with “After receiving an Alert Identifier Hash field value”.

Edward: Implemented in D4.0

[36] 2650.17: Replace “transmit the Alert Identifier Hash of the desired message” with “transmit the Alert Identifier Hash field of the desired message”.

Edward: Implemented in D4.0

[37] 2650.26: Replace “the hexadecimal numerals of the Alert Identifier Hash” with “the hexadecimal numerals of the Alert Identifier Hash field”.

Edward: Implemented in D4.0

[TGme Editor] Accept all proposed changes in this section.

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

Edward

No issues identified.

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

[Volunteer name]

#### normative, non-normative, ensure

#### [TGme Editor] Accept all proposed changes in this section.

#### Carol

(Mark Rison has done a substantial amount of review on this topic)

**May**

P190, L56, “In an implementation, a single logical portal function ~~may~~ can be provided”

[Robert: I think “might is a better substitute in most cases (can = ability to do action; might = possibility of action). Change to “…a single portal function might be provided”]

Emily: Implemented in D4.0

P203, L63, “A power management mode of an associated station (STA) in which an access point (AP) ~~may~~ can transmit physical layer (PHY) protocol data units (PPDUs) to an associated STA at any time.

[Robert: “may” -> “might”]

Action: change “may” to “might”

Emily: Implemented in D4.0

P204, L1, “it is a mesh power management mode in which a neighbor peer mesh STA ~~may~~ can transmit PPDUs to the mesh STA at any time.”

Action: change “may” to “might”

Emily: Implemented in D4.0

P345, L9, “NOTE—In implementations, the (#1429)DA address filtering function ~~may~~ can be done “lower in the stack.””

Action: change “may” to “might”

Emily: Implemented in D4.0

P2379, L11, “NOTE 3—A STA ~~may~~ can use both WNM sleep mode and PS mode simultaneously.”

Action: change “may” to “might”

Emily: Implemented in D4.0

P2417, L33, “NOTE 1—A DMG STA in doze state ~~may need to~~ can perform beamforming to restore its links with other DMG STAs as needed.”

[Robert: “may need to” -> “might need to” (no “as needed”)]

Action: change “may” to “might”

Emily: Implemented in D4.0

P2421, L18, “NOTE 2—A DMG STA in doze state ~~may need to~~ can perform beamforming to restore its links with other DMG STAs as needed.”

Action: change “may” to “might”

Emily: Implemented in D4.0

P2421, L56, “NOTE 2—The PCP ~~may need to~~ can behave as if it is in active mode or in an A-BI to some associated STAs for a number of planned successive PCP D-BIs if it has not been able to confirm the reception of its WS by each associated STA, and it has not transmitted its WS through DMG Beacon or Announce frames over dot11MaxLostBeacons successive beacon intervals.”

[Robert: “may need to behave as it is” -> “might need to behave as if it is”]

Action: Change as suggested by Robert.

Emily: Implemented in D4.0

P2427, L50, **“**However, GLK STAs that find PS mode useful ~~may~~ can utilize PS mode while performing behaviors in this subclause.”

Action: change “may” to “might”

Emily: Implemented in D4.0

\*check P2738, L6, seems to be an incorrect link “(see (NOTE-For operating mode…))”

🡺 Emily to submit a comment.

P3874, L48, “NOTE 6—The frame type of MPDUs ~~may~~ can be different across A-MPDUs within the same HE TB PPDU subject to A-MPDU context.”

Action: change “may” to “might”

Emily: Implemented in D4.0

**"Will” should not be used**

P173, L6, “that ~~will~~ can statically support”

[Robert: “can” is appropriate here since it refers to ability]

Action: as suggested.

Emily: Implemented in D4.0

P521, L24, “a non-AP STA ~~will have~~ complete~~d~~s the network selection process”

Action: as suggested.

Emily: Implemented in D4.0

P597, L2, “In group addressed mesh Data frames, the Mesh Power Save Level subfield is set to 0 to indicate that none of the peer-specific mesh power management modes of the mesh STA ~~will be~~ are deep sleep mode.”

Action: as suggested.

Emily: Implemented in D4.0

P609, L56,

“)The CMMG NDP Announcement subfield of the CMMG variant HT Control field indicates a CMMG NDP ~~will~~ may be transmitted (according to the rules described in 10.32 (CMMG beamforming)). It is set to 1 to indicate that an NDP follows; otherwise, it is set to 0.”

Action: no change; resolve through comment resolution process.

🡺Emily to submit a comment.

P869, L52, “The Requested Element IDs within a Request element transmitted in an Information Request frame do not include an element ID that corresponds to an element ~~that will be~~ to be included in the Information Response frame even in the absence of the Request element”

Action: as suggested.

Emily: Implemented in D4.0

P869, L58, “Some implementations might unnecessarily include in a Probe Request frame a Request element that contains the element ID of an element ~~that will be~~ to be included in the Probe Response frame”

Action: as suggested.

Emily: Implemented in D4.0

P870, L28, “The requested elements within an Extended Request element transmitted in a Probe Request frame do not identify ~~an~~ elements ~~that will be~~ included in the Probe Response frame even in the absence of the Request element, or ~~will be~~ excluded from the Probe Response frame even in the presence of the Extended Request element as described by the notes in Table 9-67 (Probe Response frame body). The requested elements within an Extended Request element transmitted in an Information Request frame do not identify ~~an~~ elements ~~that will be~~ included in the Information Response frame even in the absence of the Extended Request element,"

Action: as suggested.

Emily: Implemented in D4.0

P980, L27,

“NOTE—A STA need not insert a PMKID in the PMKID List field if the STA ~~will not be~~ is not using that PMKSA.”

Action: as suggested.

Emily: Implemented in D4.0

P1130, L59,

“If the Query Response Length Limit field is larger than the maximum MMPDU size, the Query Response ~~will~~ spans multiple MMPDUs”

Action: as suggested.

Emily: Implemented in D4.0

P1131, L13,

: “When this field contains a vendor-specific advertisement protocol ID, then this field ~~will be~~ is structured per the Vendor Specific element defined in 9.4.2.24 (Vendor Specific element)”

Action: as suggested.

Emily: Implemented in D4.0

P1145, L33,

“The mesh STA transmitting the MCCA Setup Request element is the MCCAOP owner of the MCCAOPs ~~that will be~~ scheduled with this reservation setup request.”

Action: as suggested.

Emily: Implemented in D4.0

P1226, L51,

“NOTE 8—A receiving STA in which dot11VHTExtendedNSSBWCapable is false ~~will~~ ignores the Extended NSS BW Support subfield and effectively evaluates this table only at the entries where Extended NSS BW Support is 0.”

Action: as suggested.

Emily: Implemented in D4.0

P1272, L10,

“ If it is equal to 1, the AP ~~will~~ transmits a Resource Allocation frame”

Action: as suggested.

Emily: Implemented in D4.0

P1279, L23,

“The (group) listen interval ~~will~~ starts from the first TBTT or TSBTT that follows the expiration of the AID switch counter obtained from the AID Switch Count field of this element”

Action: as suggested.

Emily: Implemented in D4.0

P1280, L37,

 “It is expected that during the association, STAs receive a nonzero group ID, which ~~will~~ restricts their activity to a particular sector interval or during omnidirectional time interval.”

Action: as suggested.

Emily: Implemented in D4.0

P1286, L34,

“then the TWT requesting STA or TWT scheduled STA ~~will~~ rejects the TWT setup.”

Action: as suggested.

Emily: Implemented in D4.0

P1292, L11,

“the TWT SP(s) corresponding to the TWT flow identifier(s) of the TWT element ~~will be~~ are protected by”

\*Side note: line 44 has wrong sized text on this page

Action: as suggested.

Emily: Implemented in D4.0

P1293. L2,

“The Min Sleep Duration field in the NDP Paging Request indicates in units of SIFS the minimum duration ~~that STA will be in the~~ of the STA’s doze state after receiving an NDP Paging frame with a matching P-ID.”

Action: as suggested.

Emily: Implemented in D4.0

P1301, L57,

“The Extended Supported S1G-MCS and NSS Set field not being present ~~will~~ conveys that neither S1G-MCS 11 nor S1G-MCS 12 are supported.”

Action: as suggested.

Emily: Implemented in D4.0

P1321, L51,

 “The Header Compression element is used by a STA to inform its intended receiver ~~regarding~~ the frame header fields ~~that will~~ to be compressed and that it needs to store.”

Action: no change; resolve through comment resolution process.

Emily to submit a comment.

P1391, L5,

 “and the new BSS color ~~that will~~ to take effect after the BSS color change”

[Robert: “that takes effect”]

Action: no change; resolve through comment resolution process.

Emily to submit a comment.

P1488, L60,

“a query for that element ~~will~~ returns that element with all optional fields not present.”

Action: as suggested.

Emily: No change. The text was updated by CID 4066.

P1564, L62,

“The value 0 ~~will be~~ is returned by the STA when a Query Response is provided in this frame.”

Action: as suggested.

Emily: Implemented in D4.0

P2008, L40,

“MFB = 127, MFSI in the range 0 to 6: the responder is not ~~now~~ providing~~, and will never provide,~~ feedback for the request ~~that had the~~ with the MSI value that matches the MFSI value.”

Action: as suggested.

Emily: Implemented in D4.0

P2011, L3,

 “: the responder is not ~~now~~ providing~~, and will never provide,~~ feedback for the request ~~that had~~ with the MSI value that matches the MFSI value.”

Action: as suggested.

Emily: Implemented in D4.0

P2013, L46,

“the responder is not ~~now~~ providing~~, and will never provide,~~ feedback for the request ~~that had~~ with the MSI value that matches the MFSI value.”

Action: as suggested.

Emily: Implemented in D4.0

P2019, L12,

 “In general, bidirectional implicit beamforming ~~will~~ does not function as described here when the steering matrices have nonorthonormal columns.”

Action: as suggested.

Emily: Implemented in D4.0

P2265, L32.==>P2266

 ““Demand TWT” indicates that the requesting STA ~~will~~ currently accepts only the indicated TWT parameters for a TWT agreement.”

Action: as suggested.

Emily: Implemented in D4.0

P2266, L20,

“The TWT response sent by the TWT responding STA containing the TWT Setup Command field of Accept TWT ~~will~~ indicates whether”

Action: as suggested.

Emily: Implemented in D4.0

P2266, L32,

““Demand TWT” indicates that the requesting STA ~~will~~ currently accepts only the indicated TWT parameters for a TWT agreement.”

Action: as suggested.

Emily: Implemented in D4.0

P2271, L25,

 “Examples of frames ~~that will~~ to solicit a Next TWT Info/Suspend Duration field include”

Action: delete “will”, i.e., reads: “…frames that solicit a…”

Emily: Implemented in D4.0

P2284, L1,

“At the end, STA B sends a PPDU with the Response Indication 2 (Normal Response) and STA A ~~will~~ terminates the BDT exchange by sending a PPDU with the Response Indication equal to 0 (No response)”

Action: as suggested.

Emily: Implemented in D4.0

P2294, L9,

“STAs receive a nonzero group ID, which ~~will~~ restricts their activity to a particular sector interval and omnidirectional time interval”

Action: as suggested.

Emily: Implemented in D4.0

P2350, L64,

“Similar considerations ~~will~~ apply for the Nontransmitted BSSID Profile subelement for BSSID M (not shown”

Emily: Implemented in D4.0

P2352, L9,

“This countdown value ~~will~~ allows a STA associated with an AP in the set to receive the announcement during the DTIM beacon”

Action: delete “will” (don’t insert “countdown value”).

Emily: Implemented in D4.0

P2352, L36,

“which ~~will~~ results in a different BSSID in the set taking over the role of the transmitted BSSID.”

Emily: Implemented in D4.0

Action: as suggested.

P2353, L25,

“Indication of buffered group addressed frames for each BSSID belonging to the multiple BSSID set (as described in 9.4.2.5 (TIM element)) ~~will~~ follows the newly assigned multiple BSSID index values updated according to this subclause”

Action: as suggested.

Emily: No change. the cited text was updated by CID 4003.

P2353, L29,

“then an iaf of 6 ~~will~~ converts the BSSID 8c-fd-0f-7f-1e”

Action: as suggested.

Emily: Implemented in D4.0

P2365, L10,

“IBSS: At least one STA ~~will be~~ is awake to respond to (#3751)Probe Request frames”

Action: as suggested.

Emily: Implemented in D4.0

P2381, L61,

“AID 0 (zero) is reserved to indicate the presence of buffered non-GCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA but that are not delivered using group AID.”

Action: as suggested.

Emily: Implemented in D4.0

P2382, L13,

“After a DTIM, the AP shall transmit buffered nonGCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA, before transmitting any individually addressed frames.”

Action: as suggested.

Emily: Implemented in D4.0

P2386, L9,

“The non-AP STA may transmit multiple ADDTS Request frames to the AP where the last received ADDTS Request frame ~~will~~ overrides any previously received ADDTS Request frame.”

Action: as suggested.

Emily: Implemented in D4.0

P2388, L9,

“ the presence of further buffered non-GCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA”

Action: as suggested.

Emily: Implemented in D4.0

P2388, L11,

“to transmit all of the buffered non-GCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA”

Action: as suggested.

Emily: Implemented in D4.0

P2388, L18,

“, until all buffered non-GCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA have been transmitted”

Action: as suggested.

Emily: Implemented in D4.0

P2388, L21,

 “the AP shall retransmit all nonGCR-SP group addressed BUs ~~that will~~ to be delivered using MPDUs with an RA other than a SYNRA”

Action: as suggested.

Emily: Implemented in D4.0

P2395, L54,

“(this transmission ~~will be~~ is preceded by the transmission of a Peer Traffic Indication frame and the subsequent receipt of a trigger frame that starts a service period)”

Action: as suggested.

Emily: Implemented in D4.0

P2397, L23,

“More than one FMSID may have the same delivery interval and therefore ~~will~~ share the same FMS counter.”

Action: as suggested.

Emily: Implemented in D4.0

P2400, L5,

” The AP ~~will~~ terminates the use of FMS transmission rules for any FMS stream identified by FMSID.”

Action: as suggested.

Emily: Implemented in D4.0

P2427, 56, “NOTE 2—The net effect of the above is that any GLK non-AP STA in PS mode will, for all traffic for which the PS STA is a recipient, result in MPDUs that are buffered and, if there are multiple receivers, potentially duplicated.”

\*\*The ‘will’ should be removed, but the sentence doesn’t make sense even with ‘will’ in it, so I’m not sure how to fix it.

Action: no change.

Emily: Implemented in D4.0

P2458, L36,

“The delay bound ~~that will be~~ provided by the HC in the TSPEC response is”

Action: as suggested.

Emily: Implemented in D4.0

P2501, L26,

“The duration over which the measurement was made ~~will be~~ is included in the measurement duration field of the measurement report.”

Action: as suggested.

Emily: Implemented in D4.0

P2543, L3,

“The New Channel Number field of the Extended Channel Switch Announcement element represents the new channel (when the BSS after relocation/width change ~~will be~~ is a 20 MHz BSS) or the primary channel of the new pair of channels (when the BSS after relocation/width change ~~will be~~ is a 20/40 MHz BSS).”

Action: as suggested.

Emily: Implemented in D4.0

P2596, L45,

“The AP selects TXVECTOR parameters ~~that will be~~ used for transmission to the currently associated STAs”

Action: change “that will be” to “to be”

Emily: Implemented in D4.0

P2645, L1,

“Authentication ~~will~~ then occurs between the non-AP STA and the SSP through a protected tunnel. ”

Action: as suggested.

Emily: Implemented in D4.0

P2650, L1,

“The same value of hash ~~will be~~ is computed by each AP in an ESS and by each AP in different ESSs”

Action: as suggested.

Emily: Implemented in D4.0

P2651, L23,

 “The AP’s SME causes the QoS mapping to be available to higher layer protocols or applications so they ~~will be able to~~ may set the correct priority in an MA-UNITDATA.request primitive.”

Action: change “will be able to” to “are able to”

Emily: Implemented in D4.0

P2651, L38,

 “Upon receiving the QoS Map element, the non-AP STA’s SME causes the QoS mapping to be available to higher layer protocols or applications so they ~~will be able to~~ may set the correct priority in an MA-UNITDATA.request primitive.”

Action: change “will be able to” to “are able to”

Emily: Implemented in D4.0

P2652, L49,

“Then determine the bit positions in the Bloom Filter Array field ~~that will~~ to be set to 1 for each service in the list.”

Action: as suggested.

Emily: Implemented in D4.0

P2658, L60,

“that the requesting QMF STA ~~will~~ uses for transmitting Management frames to the peer QMF STA”

Action: as suggested.

Emily: Implemented in D4.0

P2790, L59,

 “A PMKSA created as part of an RSNA ~~will~~ contains the MAC address used to create the PMKSA.”

Action: as suggested.

Emily: Implemented in D4.0

P2814, L57,

“at least one of which ~~will~~ represents an abscissa of a point on the curve.”

Action: as suggested.

Emily: Implemented in D4.0

P2818, L17,

“This ~~will~~ ensures PT is a generator of order either 1”

Action: as suggested.

Emily: Implemented in D4.0

P2821, L46,

“Use of other AKMs with the hash-to-element method(#344) ~~will~~ requires definition of the length of the PMK.”

Action: as suggested.

Emily: Implemented in D4.0

P2821, L51,

“(if only one sent a Rejected Groups element then the salt ~~will~~ shall consist of that list)”

Action: change “will consist” to “consists”

Emily: Implemented in D4.0

P2869, L61,

“In the initial 4-way handshake this third message (and the fourth message sent in response) ~~will be~~ is unprotected and in a rekeying 4-way handshake the third (and the fourth) message ~~will be~~ is (are) protected with the old key.”

Action: change “will be” to “are” (2x)

Emily: Implemented in D4.0

P2878, L26,

“NOTE 3—~~The~~ A STA ~~will not be~~ is not sent any protected individually addressed robust Management frames. ~~The~~ A STA might be sent a protected group addressed robust Management frame by a peer STA that has negotiated management frame protection for links with other STA”

Action: change “will not be” to “is not” (don’t change article).

Emily: Implemented in D4.0

P2878, L49,

“NOTE 6— ~~The~~ A STA ~~will not be~~ is not sent any protected individually addressed robust Management frames before ~~the~~ a PTKSA has been established.”

Action: as suggested.

Emily: change “will not be” to “is not” (don’t change article).

Emily: Implemented in D4.0

P2948, L24,

“After exchanging Authentication frames, the STA and AP derive a shared and secret key ~~that will be~~ used to derive a set of secret keys”

Action: as suggested.

Emily: Implemented in D4.0

P3084, L44,

“~~there will not be~~ a loop is not formed”

Action: as suggested.

 Emily: Implemented in D4.0

P3097, L60,

“the mesh STA shall adjust its TSF timer so that the next TBTT ~~will be~~ is delayed for the duration of the”

Action: as suggested.

Emily: Implemented in D4.0

P3097, L61,

“Otherwise, it shall adjust its TSF timer so that the next TBTT ~~will be~~ is delayed for the duration of”

Action: as suggested.

Emily: Implemented in D4.0

P3217, L1,

“—A Class 2 ERP STA ~~will not be~~ is not able to operate in a BSS”

Action: as suggested.

Emily: Implemented in D4.0

P3231, L29,

“—A Class 2 HT STA ~~will not be~~ is not able to operate in a BSS whose AP includes in the basic rate/HT-MCS set”

Action: as suggested.

Emily: Implemented in D4.0

P3449, L7,

 “The number of pad bits added ~~will always be~~ is 0 to 7 per user”

Action: as suggested.

Emily: Implemented in D4.0

P3451, L50,

 “In the case that rate 5/6 coding is selected, the puncturing scheme ~~will be~~ is the same as described in”

Action: as suggested.

Emily: Implemented in D4.0

P3463, L12,

“~~will be~~ are transmitted on two data tones that are separated by”

Action: as suggested.

Emily: Implemented in D4.0

P3500, L57, “the maximum A-MPDU length will be limited by the Maximum A-MPDU Length Exponent”

Should be “the maximum A-MPDU length ~~will be~~ is limited by the Maximum A-MPDU Length Exponent”

Action: as suggested.

Emily: Implemented in D4.0

P3633, L63,

“the bits ~~will be~~ are input serially”

Action: as suggested.

Emily: Implemented in D4.0

P3654, L44,

 “which ~~will~~ corresponds to a single column V matrix having elements with equal magnitude”

Action: as suggested.

Emily: Implemented in D4.0

P3682, L17,

” CCA levels ~~will~~ impact system behavior and performance increasingly with loading,”

Action: as suggested.

Emily: Implemented in D4.0

P3832, L18,

“the STA ~~will~~ does not respond”

Action: as suggested.

Emily: Implemented in D4.0

P3908, L53

 “The responding STA ~~will~~ does not create any new individual TWT agreement with the requester at this time.”

Action: as suggested.

Emily: Implemented in D4.0

P3909, l60,

“The unsolicited TWT response with TWT Setup Command field of Accept TWT ~~will~~ may indicate new TWT parameters that are different from the previously negotiated TWT parameters for that TWT agreement.”\*\*should this be ‘may’ or ‘does’?

Action: change “will indicate” to “indicates”

Emily: Implemented in D4.0

P3948, L38,

“then multiple STAs identified by STA-IDs in the parameter STA\_ID ~~will~~ use the same resource unit”

Action: as suggested.

Emily: Implemented in D4.0

P3957, L45,

 “: the responder ~~will~~ does not provide feedback for the request that had the MSI value”

Action: as suggested.

Emily: Implemented in D4.0

P3980, L15,

“if it does not expect additional (not yet associated) STAs ~~will~~ need to discover the BSS.”

Action: change “expect additional (not yet associated) STAs will need to discover the BSS” to “expect that additional (not yet associated) STAs need to discover the BSS”

Emily: Implemented in D4.0

P4128, L18,

“The number of pre-FEC pad bits added by the MAC ~~will always be~~ is a multiple of 8.”

Action: as suggested.

Emily: Implemented in D4.0

P4128, L20,

“The number of pre-FEC pad bits added by the PHY ~~will always be~~ is 0 to 7.”

Action: as suggested.

Emily: Implemented in D4.0

P4129, L28,

“When rate 5/6 coding is selected, the puncturing scheme ~~will be~~ is the same as described”

Action: as suggested.

Emily: Implemented in D4.0

P4132, L25,

” The number of pre-FEC pad bits added by PHY ~~will always be~~ is 0 to 7.”

Action: as suggested.

Emily: Implemented in D4.0

P4938, L52,

 “When true, this attribute indicates a STA that ~~will~~ does not accept associations from or peer with a non-GLK capable STA. When false, it indicates a STA that ~~will~~ does peer with or accept associations from a non-GLK capable STA.”

Action: as suggested.

Emily: Implemented in D4.0

P4939, L12, “"When true, this attribute indicates a STA that ~~will~~ only associates, direct links, or peers with a STA supporting EPD. When false, it indicates a STA that ~~will~~ associates, direct links, or peers with a STA that does not support EPD.”

Action: as suggested.

Emily: Implemented in D4.0

P5000, L52,

“The Burst Interframe(#1460) interval value is set to 0 to indicate that frames ~~will be~~ are transmitted with no target interframe(#1460) delay.”

Action: as suggested.

Emily: Implemented in D4.0

P5001, L1,

 “If the Tracking Duration value is a nonzero value the STA ~~will~~ sends Location Track Notification frames, based on the Normal and In-Motion Report Interval field values, until the duration ends. If the Tracking Duration is 0 the STA ~~will~~ continuously sends Location Track Notification frames”

Action: as suggested.

Emily: Implemented in D4.0

P5125, L16 missing word “B4 indicates that the STA will be disassociated from the ESS.”

Action: as suggested (missing work added, will remains).

Emily: Implemented in D4.0

P5185, L26,

“"When SAE authentication is the selected AKM suite, this table is used to locate the binary representation of a shared, secret, and potentially low-entropy word, phrase, code, or key ~~that will~~ to be used as the authentication credential between a TA/RA pair”

Action: as suggested.

Emily: Implemented in D4.0

P5187, L22,

 “More preferred Group Identifiers ~~will~~ have a lower index in the Group Entry.”

Action: as suggested.

Emily: Implemented in D4.0

P5402, L14,

“A6 was previously used for street names in IETF RFC 5139 [B46], it ~~will not be~~ is no longer used, the RD element ~~will be~~ is used for thoroughfare data. However, without additional information these fields ~~will not be~~ are not interchanged when converting between different civic formats. Where Civic address information is obtained from another format, such as the DHCP form IETF RFC 4776 [B44], the A6 element ~~will be~~ is copied directly from the source format.”

Action: as suggested.

Emily: Implemented in D4.0

P5692, L60,

“The value used in an HCCA TSPEC might be different~~, as will now be explained~~.”

Action: as suggested.

Emily: Implemented in D4.0

P5707, L9,

 “A NULL virtualBitMap ~~will~~ still adds a single octet of 0”

Action: as suggested.

Emily: Implemented in D4.0

P5712, L37,

“unless the GLK STA ~~will~~ joins only BSSs limited to EPD STAs.”

Action: as suggested.

Emily: Implemented in D4.0

P5712, L59,

“there ~~will be~~ are two sequential length fields or,”

Action: as suggested.

Emily: Implemented in D4.0

P5741, L63,

“The use of DSCP Exception fields ~~will~~ maps a DSCP to a UP.”

Action: as suggested.

Emily: Implemented in D4.0

P5741, L64,

 “Mapping by range ~~will~~ requires the setting of DSCP ranges”

Action: as suggested.

Emily: Implemented in D4.0

P5746, L60,

 “The AP ~~will~~ uses this information for authorization requests from the STA”

Action: as suggested.

Emily: Implemented in D4.0

P5750, L45,

 “Using this type of association means the AP and non-AP STA ~~will~~

 exchange unprotected frames”

Action: as suggested.

Emily: Implemented in D4.0

P5799, L1,

“This ~~will~~ ensures that STAs associated with that profile are able to receive the update.”

Action: as suggested.

Emily: Implemented in D4.0

**“Must”**

P1260, L16,

“The assignment of the cache identifier is outside the scope of the standard but its value ~~must be~~ is unique per Authenticator”

Action: resolve through comment resolution process.

Emily to submit a comment.

P1325, L44,

“The requested vendor specific information sequence ~~must~~ starts with an Organization Identifier field”

Action: as suggested.

Emily: Implemented in D4.0

P1512, L23,

“The Validation subfield indicates the minimum type of credential validation ~~that must occur~~ for the credentials to be deemed valid.”

Action: as suggested.

Emily: Implemented in D4.0

P1866, L52,

 “The MSDU in the MA-UNITDATA.request.primitive ~~must~~ shall start with the octets specified in the LLC Header Copy field.”

Action: no change; use comment resolution process.

Emily to submit a comment.

P2351, L13,

“including Vendor Specific element carrying “Content (1)” which ~~must~~ shall be replicated in order to still apply to BSSID N”

Action: no change; use comment resolution process.

Emily to submit a comment.

P2510, L40,

 “The STA requesting a Beacon report ~~must~~ supports Reported Frame Body subelement (de)fragmentation”

**Or** this text must be changed from a NOTE to normative text: “The STA requesting a Beacon report ~~must~~ shall support Reported Frame Body subelement (de)fragmentation”

Action: no change; use comment resolution process.

Emily to submit a comment.

P4980, L6,

” dot11DSEEnablementFailHoldTime indicates the number of seconds that a dependent STA ~~must~~ shall not transmit in a DSE frequency band”

Action: no change; use comment resolution process.

Emily to submit a comment.

P5293, L1,

“during which the STA ~~must~~ shall transmit at least one DMG STA Directional Transmit Activity Report frame”

Action: no change; use comment resolution process.

Emily to submit a comment.

**“May not” should not be used.**

P382, L40,

“when the primitives may ~~not~~ be unclear from the descriptions in those clauses.”

[Robert: I think the use of “may” here is inappropriate since we are taking about the spect content.]

Action: Change to “when the primitives might not be clear from the descriptions in those clauses”

Emily: Implemented in D4.0

P2361, L16,

“STA A may ~~or may not~~ be a member of a PBSS.”

[Robert: agree]

Action: as suggested.

Emily: Implemented in D4.0

P2625, L17,

” The receiving STA may ~~or may not~~ respond to the GAS Query Request.”

Action: as suggested.

Emily: Implemented in D4.0

P4570, L57,

“The WUR non-AP STA may ~~or may not~~ wake up to receive Beacon frame if the WUR non-AP STA is in PS mode”

Action: as suggested.

Emily: Implemented in D4.0

**“Only”** used as a constraint

Extras

Misc. NOTE related:

P580, L40 – NOTE has wrong font size.

P629 – NOTEs are not sequentially numbered

P687 – NOTE 2 should be NOTE.

P746 – “NOTE 2—Values for the Address Extension Mode subfield are defined in see Table 9-35”

Should be “NOTE 2—Values for the Address Extension Mode subfield are defined in ~~see~~ Table 9-35”

P1373, L19 – the note says “It is mandatory for …” – does that mean the text should not be a note?

Emily: location is 1374.19. Emily to submit a comment.

[TGme Editor] Accept all proposed changes in this section.

Emily: Implemented in D4.0

#### Style Guide 2.8.1 – which/that

Joseph

Carol

(decide between yourself who does which section)

#### Style Guide 2.8.2 – articles

Check with Mark Rison

#### Style Guide 2.8.3 – missing nouns

Check with Mark Rison

#### Style Guide 2.8.4 – unnecessary nouns

Check with Mark Rison

#### Style Guide 2.8.5 – unicast and multicast

#### Roy Want

Unicast (11 occurrences: 7 changes proposed, 4 ok)

[TGme Editor P2] No change in this section. Some of words “unicast” and “multicast” in the identified locations are referred to upper layers (i.e. IP layer). In the IP layer, “unicast” and “multicast” are used, instead of “individually addressed” and “group addressed”.

Need further discussion for those items. Assigned to Emily to submit comments in SB.

#1 P208 L15: If the target matches the address of an associated non-AP STAs, the Proxy ARP service can either respond on behalf of the non-AP STA, or preferably send the frames as unicast transmissions to the target STA(s) only. -> If the target matches the address of an associated non-AP STAs, the Proxy ARP service can either respond on behalf of the non-AP STA, or preferably send the frames as ~~unicast~~ individually addressed transmissions to the target STA(s) only.

Action: as suggested.

[TGme Editor] No change.

#2 P2602 L13: If the target address is known, the Proxy ARP service can either respond directly on behalf of a STA or forward the request as a unicast frame to the intended STA. -> If the target address is known, the Proxy ARP service can either respond directly on behalf of a STA or forward the request as ~~a unicast~~ an individually addressed frame to the intended STA.

Action: as suggested.

[TGme Editor] No change.

#3 P2602 L17: Otherwise, forwarding as unicast is recommended, to avoid responding with misleading information. -> Otherwise, forwarding as ~~unicast~~ an individually addressed frame is recommended, to avoid responding with misleading information.

Action: as suggested.

[TGme Editor] No change.

#4 P2602 L20:

(#1208) For IPv4, when the address being resolved in the ARP request (IETF RFC 826) is used by a non-AP STA currently associated to the BSS, the proxy ARP service shall either respond on behalf of the STA to an ARP request or an ARP probe (IETF RFC 5227) or preferably turn the ARP request into a unicast frame sent to that STA. ->

(#1208) For IPv4, when the address being resolved in the ARP request (IETF RFC 826) is used by a non-AP STA currently associated to the BSS, the proxy ARP service shall either respond on behalf of the STA to an ARP request or an ARP probe (IETF RFC 5227) or preferably turn the ARP request into ~~a unicast~~ an individually addressed frame sent to that STA.

Action: as suggested.

[TGme Editor] No change.

#5 P2604 L2:

NS messages are sent as IP layer unicast for neighbor unreachability detection (NUD) (section 7 of IETF RFC 4861). ->

NS messages are sent as IP layer ~~unicast~~ individually addressed frames for neighbor unreachability detection (NUD) (section 7 of IETF RFC 4861).

Action: as suggested.

[TGme Editor] No change.

#6 P2604 L3:

The proxy ARP function shall not operate on IP layer unicast NS messages.->

The proxy ARP function shall not operate on IP layer ~~unicast~~ individually addressed NS messages.

Action: as suggested.

[TGme Editor] No change.

#7 P2604 L20:

Preferably, though, the Proxy ARP service should transmit the IP layer multicast NS message as a unicast frame to the STA and let the STA respond, as recommended in IETF RFC 8929.->

Preferably, though, the Proxy ARP service should transmit the IP layer ~~multicast~~ group addressed NS message as ~~a unicast~~ an individually addressed frame to the STA and let the STA respond, as recommended in IETF RFC 8929.

Action: as suggested.

[TGme Editor] No change.

#8 & #9 P5381 L23: (MIB Detail: OK – but duplicated?)

Dot11InterworkingEntry ::= SEQUENCE { dot11NonAPStationMacAddress MacAddress, dot11NonAPStationUserIdentity DisplayString, dot11NonAPStationInterworkingCapability BITS, dot11NonAPStationAssociatedSSID OCTET STRING, dot11NonAPStationUnicastCipherSuite OCTET STRING, dot11NonAPStationUnicastCipherSuite OCTET STRING,

[Emily to review]

[Emily]: no change to a MIB variable

[TGme Editor] No change.

#10 P5383 L14: (Appendix C: MIB Detail: OK)

dot11NonAPStationUnicastCipherSuite OBJECT-TYPE

Action: no change

[TGme Editor] No change.

#11 P5746 L13: (Appendix R: Interworking with external networks: OK)

The following is used: — dot11NonAPStationUnicastCipherSuite

Action: no change

[TGme Editor] No change.

Multicast (383 occurrences: 3 changes proposed, 380 OK)

#1 P280 L14:

(#1208) The Proxy ARP service enables an AP to avoid forwarding to the BSS broadcast ARP frames for IPv4 (IETF RFC 826) and IP layer multicast packets IPv6 ND messages for IPv6 (IETF RFC 4861 and IETF RFC 4862) which target not match the address of an associated STA. ->

(#1208) The Proxy ARP service enables an AP to avoid forwarding to the BSS broadcast ARP frames for IPv4 (IETF RFC 826) and IP layer ~~multicast~~ group addressed packets IPv6 ND messages for IPv6 (IETF RFC 4861 and IETF RFC 4862) which target not match the address of an associated STA.

Action: no change

[TGme Editor] No change.

#2 P602 L63: (?)

(#1208) IPv6 ND uses IP layer multicast Internet Control Message Protocol version 6 (ICMPv6) Neighbor Solicitation (NS) messages (section 4.3 of IETF RFC 4861) for address resolution (section 7.2 of IETF RFC 4861), which is the equivalent of ARP request, and for duplicate address detection (DAD). ->

(#1208) IPv6 ND uses IP layer ~~multicast~~ group addressed Internet Control Message Protocol version 6 (ICMPv6) Neighbor Solicitation (NS) messages (section 4.3 of IETF RFC 4861) for address resolution (section 7.2 of IETF RFC 4861), which is the equivalent of ARP request, and for duplicate address detection (DAD).

Action: no change

[TGme Editor] No change.

#3 P2604 L17:

(#1208)When the target IPv6 address of a IP layer multicast NS message corresponds to an associated STA, the Proxy ARP service may respond on behalf of an associated low-power STA with a neighbor advertisement (NA) message (section 4.4 of IETF RFC 4861) with the override flag set to zero, to conserve energy. ->

(#1208)When the target IPv6 address of a IP layer ~~multicast~~ group addressed NS message corresponds to an associated STA, the Proxy ARP service may respond on behalf of an associated low-power STA with a neighbor advertisement (NA) message (section 4.4 of IETF RFC 4861) with the override flag set to zero, to conserve energy.

Action: no change

[TGme Editor] No change.

Action on Emily: submit as comment during SA ballot

Action on Robert: Update style guide so that it is clear we are concerned only with MAC frames.

[TGme Editor P2] No change in this section. Emily to submit a comment in SB. Robert will update style guide so that it is clear we are concerned only with MAC frames.

### Style Guide 2.9 – Numbers

Brian Hart (will review what he can) – focus on LSB/MSB

Edward will do the rest

[01] 607.44: Given “0s”, “1s” and “2s”, **not** “zeros”, “ones” and “twos”, please replace “a sequence of zeros” with “a sequence of 0s”.

Edward: Implemented in D4.0

[02] 798.52: Replace “up to seven zeros are appended” with “up to seven 0s are appended”.

Edward: Implemented in D4.0

[03] 2819.33: Replace “a salt of all zeros” with “a salt of all 0s”.

Edward: Implemented in D4.0

[04] 3361.16: Replace “concatenating 504-LH zeros” with “concatenating 504-LH 0s”.

Edward: Implemented in D4.0

[05] 3362.45: Replace “The data are padded with zeros” with “The data are padded with 0s”.

Edward: Implemented in D4.0

[06] 3363.59: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[07] 3364.56: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[08] 3365.21: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[09] 3372.27: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[10] 3373.8: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[11] 3730.53: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[12] 3777.14: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[13] 3786.58: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[14] 3792.7: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[15] 3792.41: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[16] 5616.49: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[17] 5618.57: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[18] 5618.58: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[19] 5620.33: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[20] 5621.21: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[21] 5622.8: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[22] 5623.39: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[23] 5625.39: Replace “zeros” with “0s”.

Edward: Implemented in D4.0

[24] 4067.58: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[25] 4069.2: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[26] 4070.48: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[27] 4085.39: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[28] 4126.55: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[29] 4128.2: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[30] 4128.9: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[31] 4128.24: Replace dot with multiplication sign.

Edward: Implemented in D4.0

[Robert: changes look ok to me]

Action: accept all changes

[TGme Editor P2] Accept all suggested changes in this section.

### Style Guide 2.10 – Maths operators and relations

Edward

[01] As per Section 2.10 of the IEEE 802.11 editorial guideline, “Any use of “up to and including” should be avoided”. How about “up to and excluding” in 225.11?

[Emily to review]

[02] 967.34: Please replace “up to and including” with an appropriate phrase.

[Emily to make suggestion]

[TGme Editor] no change in this section review. The rule in Section 2.10 is for Maths operators and relations. The cited sentences are not math operators/relations.

### Style Guide 2.11 – Hyphenation

Edward

[01] 1910.9: Replace “non-dynamic” with “nondynamic”.

Edward: Implemented in D4.0

[02] 1910.13: Replace “non-dynamic” with “nondynamic”.

Edward: Implemented in D4.0

[03] 1910.51: Replace “non-dynamic” with “nondynamic”.

Edward: Implemented in D4.0

[04] 1996.28: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[05] 1997.47: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[06] 1997.51: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[07] 1997.53: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[08] 1997.60: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[09] 1997.62: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[10] 1997.64: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[11] 1998.30: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[12] 1998.38: Replace “non-fragmentable” with “nonfragmentable”.

Edward: Implemented in D4.0

[13] 2241.62: Replace “non-beamforming” with “nonbeamforming”.

Edward: Implemented in D4.0

[14] 618.22: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[15] 3836.64: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[16] 3848.26: Replace “pre-association” with “preassociation”.

Edward: Implemented in D4.0

[17] 3849.25: Replace “Pre-association” with “Preassociation”.

Edward: Implemented in D4.0

[18] 4011.12: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[19] 4011.15: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[20] 4155.60: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[21] 4155.63: Replace “pre-corrections” with “precorrections”.

Edward: Implemented in D4.0

[22] 4155.64: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[23] 4156.2: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[24] 4156.4: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[25] 4156.7: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[26] 4157.5: Replace “pre-correction” with “precorrection”.

Edward: Implemented in D4.0

[27] 5554.12: Replace “re-unites” with “reunites”.

Edward: Implemented in D4.0

[28] 5583.35: Replace “re-unites” with “reunites”.

Edward: Implemented in D4.0

[29] 5595.18: Replace “re-unites” with “reunites”.

Edward: Implemented in D4.0

[30] 3929.63: Replace “(Re-)Association Request” with “(Re)Association Request”.

Edward: Implemented in D4.0

[31] 1487.1: Replace “Access network query protocol (ANQP) elements” with “Access network query protocol (ANQP)-elements”.

Edward: Implemented in D4.0

[32] 2914.48: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[33] 2952.54: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[34] 3862.44: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[35] 306.47: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[36] 998.63: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[37] 1230.37: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[38] 1396.28: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[39] 1991.4: Replace “implementation-specific” with “implementation specific”.

Edward: Implemented in D4.0

[40] Consider adding “timing-related” to the grandfather list.

[41] 3750.31: Replace “Time-related” with “Timing-related”.

Edward: Implemented in D4.0

[42] 3750.37: Replace “Time-related” with “Timing-related”.

Edward: Implemented in D4.0

[43] 360.5: Replace “MIB-related” with “MIB related”.

Edward: Implemented in D4.0

Action: as suggested for all.

[TGme Editor] Accept all suggested changes in this section.

### Style Guide 2.12 – References to SAP primitives

No volunteer

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

Emily took a look at the new subclauses (added by 11ax, 11ay and 11ba). They seem okay.

### Style Guide 2.14 –MIB attributes

Mark Hamilton

### Style Guide 2.15 – Hanging Paragraphs

No volunteer

### Style Guide 2.16 – Abbreviations

Emily

No findings.

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

No volunteer

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

#### Definitions (Clause 3)

Carol

P182, L19, beamforming has a defined acronym [BF]

Edward: Implemented in D4.0

P186, L14, delete (IBSS), not needed immediately before [IBSS]

Edward: Implemented in D4.0

P188, L50, missing ] after acronym

Edward: Implemented in D4.0

P189, L25, needs [noninfrastructure BSS] after :

Edward: Implemented in D4.0

P189, L44, should be “transmit beacons.”

Edward: Implemented in D4.0

P190, L26, should be “peer-to-peer (PTP) link: [PTP link] …”

Edward: Implemented in D4.0

P190, L31, should be “peer-to-peer (PTP) traffic specification (TSPEC):”

Edward: Implemented in D4.0

P192, L5, should be “receive (RX) chain: [RX chain]”

Edward: Implemented in D4.0

P192, L10, should be receive (RX) power: [RX power]”

Edward: Implemented in D4.0

P194, L49, should be “transmit (TX) chain: [TX chain]”

Edward: Implemented in D4.0

P213, L1, should be “group addressed quality-of-service (QOS) management frame: [GQMF]”

Edward: Implemented in D4.0

P220, L17, should be “nonextended rate physical layer (PHY): [non-ERP]”

Edward: Implemented in D4.0

P220, L28, should be “nongroupcast with retries service period (SP): [non-GCR-SP]”

Edward: Implemented in D4.0

P220, L40, should be “non-high-throughput: [non-HT]”

Edward: Implemented in D4.0

P222, L22, should be “non-spatial reuse group: [non-SRG]”

Edward: Implemented in D4.0

P226, L15, L18, L22, L27, L32, all need “(QOS)” added to the term being defined

Edward: Implemented in D4.0

P226, L60, should be “receive (RX) sector sweep: [RXSS]”

Edward: Implemented in D4.0

P234, L1, L5, L10 should be “transmit (TX)”

Edward: Implemented in D4.0

P237, L40, should be “uplink: [UL]”

Edward: Implemented in D4.0

P239, L1, should be “wake-up radio (WUR) duty cycle service period (SP):”

Edward: Implemented in D4.0

P192, L40, reassembly is out of order

Edward: Implemented in D4.0

P201, L52, L58, P202, 10, L15, the 2.16 entries are out of order, they belong after the 2MHz entries

Edward: Implemented in D4.0

P202, L26, L31, 42, L48, the 4.32 entries are out of order, they belong after the 4-way handshake entry

Edward: Implemented in D4.0

P202, L60, P203, L1, the 6.48 entries are out of order, they belong after the 6 GHz band entry

Edward: Implemented in D4.0

P203, L13, L17, the 8.64 entries are out of order, they belong after the 8 MHz entries

Edward: Implemented in D4.0

P207, L51, delivery-enabled access category is out of order, should be before delivery traffic indication map entries

Edward: Implemented in D4.0

P208, L1, direct sequence spread spectrum (DSSS) physical layer (PHY) protocol data unit is out of order should be after direct sequence spread spectrum (DSSS) complementary code keying entries

Edward: Implemented in D4.0

P224, L54, peer trigger frame is out of order, should be after peer-specific mesh power management mode

Edward: Implemented in D4.0

P226, L1, physical layer (PHY) protocol data unit (PPDU)[+SigExt] is out of order

Edward: Implemented in D4.0

P228, L10, sub 1 GHz (S1G) band is out of order

Edward: Implemented in D4.0

P228, L17, L22, secondary1 channel and secondary2 channel are out of order

Edward: Implemented in D4.0

P234, L37, trigger-enabled access category (AC) is out of order

Edward: Implemented in D4.0

P238, L31, very high throughput (VHT) single-user (SU) physical layer (PHY) protocol data unit (PPDU) should come after very high throughput (VHT) single-user-only entries

Edward: Implemented in D4.0

3.4

P240, L 32, A-PPDU is out of order

Edward: Implemented in D4.0

P241, L39, BIP is out of order

Edward: Implemented in D4.0

[TGme Editor] Accept all suggested changes in this section.

#### General Description (Clause 4)

No volunteer

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

Emily

610.62: NOTE 2 describes the actions of a STA amd should not be included in clause 9.

Edward: Implemented in D4.0

1401.11, Delete “The EDMG Capabilities element contains a fixed length Core Capabilities field, which is followed by a variable length Optional Subelements fields.”.

Edward: Implemented in D4.0

1480.35, change “The Key Info field is 1 octet and is illustrated in” to “The format of the Key Info field is shown in”.

Edward: Implemented in D4.0

Edward: Implemented in D4.0

1480.53, change “The PN field is 6 octets and is illustrated in” to “The format of the PN field is shown in”.

The length of the field is already shown in the figure. No need to repeat in the text:

Edward: Implemented in D4.0

747.30, delete “The length of the Authentication Algorithm Number field is 2 octets.”

Edward: Implemented in D4.0

747.59,delete “The length of the Authentication Transaction Sequence Number field is 2 octets.”.

Edward: Implemented in D4.0

748.11, delete “The length of the Beacon Interval field is 2 octets”.

Edward: Implemented in D4.0

748.31, delete “The length of the Capability Information field is 2 octets.”

Edward: Implemented in D4.0

750.30, delete “TheLength of the Current AP Address field is 6 octets.”

Edward: Implemented in D4.0

750.51, delete “The length of the Listen Interval field is 2 octets.”

Edward: Implemented in D4.0

751.44, delete “The length of the Reason Code field is 2 octets.”

Edward: Implemented in D4.0

755.1, delete “The length of the AID field is 2 octets.”

Edward: Implemented in D4.0

761.5, delete “The length of the Timestamp field is 8 octets”.

Edward: Implemented in D4.0

764.34, delete “The length of the Dialog Token field is 1 octet.”.

Edward: Implemented in D4.0

764.49, delete “The length of the Block Ack Parameter Set field is 2 octets.”

Edward: Implemented in D4.0

766.30, delete “The length of the Block Ack Timeout Value field is 2 octets.”.

Edward: Implemented in D4.0

765.49, delete “The length of the Originator Preferred MCS field is 2 octets.”

Edward: Implemented in D4.0

766.37, delete “The length of the DELBA Parameter Set field is 2 octets.”

Edward: Implemented in D4.0

766.37, delete “The length of the Measurement Pilot Interval field is 1 octet.”

Edward: Implemented in D4.0

769.14, delete “The length of the field is 1 octet.”

Edward: Implemented in D4.0

786.4, delete “The length of the Target Channel field is 1 octet.

Edward: Implemented in D4.0

786.18, delete “The length of the Operating Class field is 1 octet.”

Edward: Implemented in D4.0

864.1, delete “The Length subfield is 1 octet.”

Edward: Implemented in D4.0

[TGme Editor] Accept all suggested changes in this section.

#### SAP interfaces (Clause 6)

No volunteer

#### New top level clauses

No volunteer

#### Annex A – Bibliography

No volunteer

#### Annex B – PICS

Edward

[01] Please add the abbreviation WURM (Wake Up Radio (WUR) medium access control (MAC) features) to B.2.2.

Edward: Implemented in D4.0

[02] Please add the abbreviation WURP (Wake Up Radio (WUR) physical layer (PHY) features) to B.2.2.

Edward: Implemented in D4.0

[03] Please add the abbreviation TDD-M (Time division duplex (TDD) medium access control (MAC)

features) to B.2.2.

Edward: Implemented in D4.0

[04] Please add the abbreviation EDMG-M (Enhanced direct multi-gigabit (EDMG) medium access control (MAC) features) to B.2.2.

Edward: Implemented in D4.0

[05] Please add the abbreviation EDMG-P (Enhanced direct multi-gigabit (EDMG) physical layer (PHY) features) to B.2.2.

Edward: Implemented in D4.0

[06] Please add the abbreviation HEM (High-efficiency (HE) medium access control (MAC) features) to B.2.2.

Edward: Implemented in D4.0

[07] Please add the abbreviation HEP (High-efficiency (HE) physical layer (PHY) features) to B.2.2.

Edward: Implemented in D4.0

[08] 4635.49: Replace “CFAVT.” with “CFAVT”, i.e., remove the fullstop.

Edward: Implemented in D4.0

[09] 4637.29: Prepend “\*” to CF2G4n6G because it is referenced by HEM12.2.

Edward: Implemented in D4.0

[10] 4637.31: Prepend “\*” to CF5Gn6G because it is referenced by HEM12.2.

Edward: Implemented in D4.0

[11] 4637.57: Prepend “\*” to CFPAD because it is referenced by others in B.4.32.

Edward: Implemented in D4.0

[12] 4638.49: Prepend “\*” to PC1.

Edward: Implemented in D4.0

[13] 4639.26: Replace “Random Backoff function” with “Random backoff function”.

Edward: Implemented in D4.0

[14] 4639.29: Replace “DCF Access procedure” with “DCF access procedure”.

Edward: Implemented in D4.0

[15] 4639.33: Replace “Random Backoff procedure” with “Random backoff procedure”.

Edward: Implemented in D4.0

[16] 4640.19: Add “PC4 Reserved” and “PC5 reserved”.

Edward: Implemented in D4.0

[17] 4641.50: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[18] 4643.50: PC2 is reserved. Why does PC15.2 need to reference it?

[19] 4645.28: Prepend “\*” to PC34.1.

Edward: Implemented in D4.0

[20] 4645.34: Prepend “\*” to PC34.1.2.1.

Edward: Implemented in D4.0

[21] 4645.46: Prepend “\*” to PC34.1.2.2.

Edward: Implemented in D4.0

[22] 4647.40: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[23] 4649.52: Replace “Resource Request Procedures” with “Resource request procedures”.

Edward: Implemented in D4.0

[24] 4649.56: Replace “Resource Request Procedures” with “Resource request procedures”.

Edward: Implemented in D4.0

[25] 4649.59: Replace “Resource Request Procedures” with “Resource request procedures”.

Edward: Implemented in D4.0

[26] 4650.15: Replace “SA Query Procedure” with “SA Query procedure”.

Edward: Implemented in D4.0

[27] 4650.37: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[28] 4651.8: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[29] 4651.41: Replace “Multi-band Discovery Assistance” with “Multi-band discovery assistance”.

Edward: Implemented in D4.0

[30] 4652.6: Prepend “\*” to PC45.

Edward: Implemented in D4.0

[31] 4652.6: Replace “Operating Channel Information Validation” with “Operating channel information validation”.

Edward: Implemented in D4.0

[32] 4652.45: Replace “OCI Element” with “OCI element”.

Edward: Implemented in D4.0

[33] 4655.37: Replace “Timing Advertisement frame” with “Timing Advertisement”.

Edward: Implemented in D4.0

[34] 4656.60: Remove “frame”. Note: from [34] to [82], I suggested to remove “frame” because the phrase “frame” was not present most of the “legacy” PICS items in FT. The phrase “frame” was added to mainly the 11ba-related PICs.

Edward: Implemented in D4.0

[35] 4657.6: Remove “frame”.

Edward: Implemented in D4.0

[36] 4657.13: Remove “frame”.

Edward: Implemented in D4.0

[37] 4657.19: Remove “frame”.

Edward: Implemented in D4.0

[38] 4657.26: Remove “frame”.

Edward: Implemented in D4.0

[39] 4657.32: Remove “frame”.

Edward: Implemented in D4.0

[40] 4657.38: Remove “frame”.

Edward: Implemented in D4.0

[41] 4658.40: Remove “frame”.

Edward: Implemented in D4.0

[42] 4658.46: Remove “frame”.

Edward: Implemented in D4.0

[43] 4658.53: Remove “frame”.

Edward: Implemented in D4.0

[44] 4658.59: Remove “frame”.

Edward: Implemented in D4.0

[45] 4659.6: Remove “frame”.

Edward: Implemented in D4.0

[46] 4659.13: Remove “frame”.

Edward: Implemented in D4.0

[47] 4659.19: Remove “frame”.

Edward: Implemented in D4.0

[48] 4659.25: Remove “frame”.

Edward: Implemented in D4.0

[49] 4659.32: Remove “frame”.

Edward: Implemented in D4.0

[50] 4659.38: Remove “frame”.

Edward: Implemented in D4.0

[51] 4659.45: Remove “frame”.

Edward: Implemented in D4.0

[52] 4659.51: Replace “Header compression frame” with “Header Compression frame”.

Edward: Implemented in D4.0

[53] 4659.56: Remove “frame”.

Edward: Implemented in D4.0

[54] 4660.6: Remove “frame”.

Edward: Implemented in D4.0

[55] 4660.11: Remove “frame”.

Edward: Implemented in D4.0

[56] 4660.15: Remove “frame”.

Edward: Implemented in D4.0

[57] 4660.17: Remove “frame”.

Edward: Implemented in D4.0

[58] 4660.19: Remove “frame”.

Edward: Implemented in D4.0

[59] 4660.23: Remove “frame”.

Edward: Implemented in D4.0

[60] 4660.28: Remove “frame”.

Edward: Implemented in D4.0

[61] 4660.33: Remove “frame”.

Edward: Implemented in D4.0

[62] 4660.39: Remove “frame”.

Edward: Implemented in D4.0

[63] 4661.16: Remove “frame”.

Edward: Implemented in D4.0

[64] 4661.21: Remove “frame”.

Edward: Implemented in D4.0

[65] 4661.27: Remove “frame”.

Edward: Implemented in D4.0

[66] 4661.32: Remove “frame”.

Edward: Implemented in D4.0

[67] 4662.12: Remove “frame”.

Edward: Implemented in D4.0

[68] 4662.17: Remove “frame”.

Edward: Implemented in D4.0

[69] 4662.24: Remove “frame”.

Edward: Implemented in D4.0

[70] 4662.28: Remove “frame”.

Edward: Implemented in D4.0

[71] 4662.33: Remove “frame”.

Edward: Implemented in D4.0

[72] 4662.40: Remove “frame”.

Edward: Implemented in D4.0

[73] 4662.44: Remove “frame”.

Edward: Implemented in D4.0

[74] 4662.51: Remove “frame”.

Edward: Implemented in D4.0

[75] 4662.57: Remove “frame”.

Edward: Implemented in D4.0

[76] 4663.13: Remove “frame”.

Edward: Implemented in D4.0

[77] 4663.28: Remove “frame”.

Edward: Implemented in D4.0

[78] 4663.34: Remove “frame”.

Edward: Implemented in D4.0

[79] 4663.40: Remove “frame”.

Edward: Implemented in D4.0

[80] 4663.45: Remove “frame”.

Edward: Implemented in D4.0

[81] 4663.51: Remove “frame”.

Edward: Implemented in D4.0

[82] 4663.56: Remove “frame”.

Edward: Implemented in D4.0

[83] 4684.5: Remove “\*” from DS5.6 since it is not referenced by any other PICS item.

Edward: Implemented in D4.0

[84] 4685.60: Replace “Energy Only” with “Energy only”.

Edward: Implemented in D4.0

[85] 4693.36: Replace “Timing related” with “Timing-related”.

Edward: Implemented in D4.0

[86] 4720.37: ERP4 says “Support of ERP3 required PPDU formats as described in reference” but ERP3 is reserved!

[87] 4729.32: Add “OC5.1” to the item.

Edward: Implemented in D4.0

[88] 4729.41: Add “OC6.1” to the item.

Edward: Implemented in D4.0

[89] 4730.6: Add “OC7.1” to the item.

Edward: Implemented in D4.0

[90] 4732.44: Remove “\*” from QB4.2 since it is reserved.

Edward: Implemented in D4.0

[91] 4733.28: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[92] 4637.42: For CFCDMG, it is cross-referenced itself. It does not make sense.

[93] 4637.46: For CFCMMG, it is cross-referenced itself. It does not make sense.

[94] 4638.6: For CFEDMG, it is cross-referenced itself. It does not make sense.

Action: For 92, 93 and 94 make the changes through comment process.

[95] 4638.23: Remove the “\*” because CFWUR2G4 is not cross referenced by others.

Edward: Implemented in D4.0

[96] 4638.30: Remove the “\*” because CFWUR5G is not cross referenced by others.

Edward: Implemented in D4.0

[97] 4641.48: Remove “PC11.10”.

Edward: Implemented in D4.0

[98] 4643.55: Remove the “\*” because PC15.4 is not cross referenced by others.

Edward: Implemented in D4.0

[99] 4650.28: Prepend “\*” to PC39.

Edward: Implemented in D4.0

[100] 4667.27: Prepend “\*” to FT46.2.

Edward: Implemented in D4.0

[101] 4667.27: Prepend “\*” to FT47.11.

Edward: Implemented in D4.0

[102] 4656.60: Prepend “\*” to FT45.

Edward: Implemented in D4.0

[103] 4657.51: Prepend “\*” to FT46.

Edward: Implemented in D4.0

[104] 4658.39: Prepend “\*” to FT47.

Edward: Implemented in D4.0

[105] 4662.6: Prepend “\*” to FT52.

Edward: Implemented in D4.0

[106] 4664.48: Prepend “\*” to FR10.

Edward: Implemented in D4.0

[107] 4667.15: Prepend “\*” to FR46.

Edward: Implemented in D4.0

[108] 4676.31: Prepend “\*” to AD12.

Edward: Implemented in D4.0

[109] 4676.38: Prepend “\*” to AD13.

Edward: Implemented in D4.0

[110] 4676.44: Prepend “\*” to AD14.

Edward: Implemented in D4.0

[111] 4677.6: Prepend “\*” to AD15.

Edward: Implemented in D4.0

[112] 4734.20: Prepend “\*” to QD6.

Edward: Implemented in D4.0

[113] 4735.12: Prepend “\*” to QP2.

Edward: Implemented in D4.0

[114] 4736.10: Replace “Radio Measurement Capability” with “Radio measurement capability”.

Edward: Implemented in D4.0

[115] 4736.38: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[116] 4745.24: Remove the “\*” because DSE1 is not cross referenced by others.

Edward: Implemented in D4.0

[117] 4753.18: Prepend “\*” to HTM11.

Edward: Implemented in D4.0

[118] 4752.6: Prepend “\*” to HTM4.4.

Edward: Implemented in D4.0

[119] 4753.22: Remove the “\*” because HTM10 is not cross referenced by others.

Edward: Implemented in D4.0

[120] 4753.53: Replace “HTM13.1:O” with “HTM12.1:O”. There is no such PICS item HTM13.1.

Edward: Implemented in D4.0

[121] 4753.58: Replace “HTM13.3:M” with “HTM12.3:M”. There is no such PICS item HTM13.3.

Edward: Implemented in D4.0

[122] 4754.6: Replace “HTM13.2:O” with “HTM12.2:O”. There is no such PICS item HTM13.2.

Edward: Implemented in D4.0

[123] 4754.12: Replace “HTM13.4:M” with “HTM12.4:M”. There is no such PICS item HTM13.4.

Edward: Implemented in D4.0

[124] 4754.17: Replace “HTM13.1:O” with “HTM12.1:O”.

Edward: Implemented in D4.0

[125] 4754.22: Replace “HTM13.5:M” with “HTM12.5:M”. There is no such PICS item HTM13.5.

Edward: Implemented in D4.0

[126] 4754.26: Replace “HTM13.2:O” with “HTM12.2:O”.

Edward: Implemented in D4.0

[127] 4754.29: Replace “HTM13.6:O.1” with “HTM12.6:O.1”. There is no such PICS item HTM13.6.

Edward: Implemented in D4.0

[128] 4754.35: Replace “HTM13.6:O.1” with “HTM12.6:O.1”. There is no such PICS item HTM13.6.

Edward: Implemented in D4.0

[129] 4754.42: Replace “HTM13.6:O.1” with “HTM12.6:O.1”. There is no such PICS item HTM13.6.

Edward: Implemented in D4.0

[130] 4754.50: Replace “HTM13:O” with “HTM12:O”. Calibration procedure is not related to HTM13.

Edward: Implemented in D4.0

[131] 4755.24: Prepend “\*” to HTM15.

Edward: Implemented in D4.0

[132] 4768.16: Replace “HTM14.7:M” with “HTM12.7:M”. There is no such PICS item HTM14.7.

Edward: Implemented in D4.0

[133] 4755.47: Replace “HTM17.2:M” with “HTM16.2:M”. There is no such PICS item HTM17.2.

Edward: Implemented in D4.0

[134] 4755.53: Replace “HTM17.1:M” with “HTM16.1:M”. There is no such PICS item HTM17.1.

Edward: Implemented in D4.0

[135] 4755.57: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[136] 4756.14: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[137] 4778.47: Prepend “\*” to WNM17.

Edward: Implemented in D4.0

[138] 4780.12: Replace “WNM21:M” with “WNM22:M”. Calibration procedure is not related to WNM21.

Edward: Implemented in D4.0

[139] 4780.18: Replace “WNM21:M” with “WNM22:M”. Calibration procedure is not related to WNM21.

Edward: Implemented in D4.0

[140] 4780.6: Prepend “\*” to WNM22.

Edward: Implemented in D4.0

[141] 4780.23: Prepend “\*” to WNM23.

Edward: Implemented in D4.0

[142] 4781.10: Prepend “\*” to IW1.

Edward: Implemented in D4.0

[143] 4781.32: Prepend “\*” to IW2.

Edward: Implemented in D4.0

[144] 4781.49: Prepend “\*” to IW2.2.2.

Edward: Implemented in D4.0

[145] 4783.34: Prepend “\*” to IW2.2.21.

Edward: Implemented in D4.0

[146] 4784.27: Prepend “\*” to IW3.

Edward: Implemented in D4.0

[147] 4785.6: Prepend “\*” to IW4.

Edward: Implemented in D4.0

[148] 4787.64: Replace “MCCAOP Advertisement” with “MCCAOP advertisement”.

Edward: Implemented in D4.0

[149] 4788.7: Replace “Neighbor MCCAOP Recognition” with “Neighbor MCCAOP recognition”.

Edward: Implemented in D4.0

[150] 4788.12: Replace “MCCAOP Setup” with “MCCAOP setup”.

Edward: Implemented in D4.0

[151] 4733.26: Prepend “\*” to QB5.

Edward: Implemented in D4.0

[152] 4794.6: Prepend “\*” to AVT4.

Edward: Implemented in D4.0

[153] 4794.20: Prepend “\*” to AVT5.

Edward: Implemented in D4.0

[154] 4794.27: Prepend “\*” to AVT5.1.

Edward: Implemented in D4.0

[155] 4794.30: Prepend “\*” to AVT5.2.

Edward: Implemented in D4.0

[156] 4794.46: Prepend “\*” to AVT5.3.

Edward: Implemented in D4.0

[157] 4798.60: Replace “Transmission of Request” with “Transmission of request”.

Edward: Implemented in D4.0

[158] 4799.5: Replace “Reception of Request” with “Reception of request”.

Edward: Implemented in D4.0

[159] 4799.12: Replace “Transmission of Response” with “Transmission of response”.

Edward: Implemented in D4.0

[160] 4799.18: Replace “Reception of Response” with “Reception of response”.

Edward: Implemented in D4.0

[161] 4799.31: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[162] 4799.48: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[163] 4800.10: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[164] 4801.6: Replace “Random Backoff function” with “Random backoff function”.

Edward: Implemented in D4.0

[165] 4801.11: Replace “DCF Access procedure” with “DCF access procedure”.

Edward: Implemented in D4.0

[166] 4801.19: Replace “Random Backoff procedure” with “Random backoff procedure”.

Edward: Implemented in D4.0

[167] 4803.9: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[168] 4803.24: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[169] 4806.10: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[170] 4806.32: Remove the underline from the reference subclause.

Edward: Implemented in D4.0

[171] 4810.33: Replace “DMG BSS Peer and Service Discovery” with “DMG BSS peer and service discovery”.

Edward: Implemented in D4.0

[172] 4810.51: Replace “DMG Coexistence with” with “DMG coexistence with”.

Edward: Implemented in D4.0

[173] 4811.11: Replace “Power Save Configuration” with “Power save configuration”.

Edward: Implemented in D4.0

[174] 4811.24: Replace “Information Request/Response” with “Information Request/Response frame”.

Edward: Implemented in D4.0

[175] 4813.20: Add “The DMG low-power SC mode is obsolete. Support for this mechanism might be removed in a later revision of the standard.”

Edward: Implemented in D4.0

[176] 4828.8: Replace “BSS Operation” with “BSS operation”.

Edward: Implemented in D4.0

[177] 4835.55: Add “FILS 3.2  *Reserved*”.

Edward: Implemented in D4.0

[178] 4856.25: Prepend “\*” to RL1.

Edward: Implemented in D4.0

[179] 4856.28: Prepend “\*” to RL2.

Edward: Implemented in D4.0

[180] 4856.28: Replace “S1G relay Support” with “S1G relay support”.

Edward: Implemented in D4.0

[181] 4856.36: Replace “(RL2)” with “RL2”.

Edward: Implemented in D4.0

[182] 4856.40: Prepend “\*” to RL6.

Edward: Implemented in D4.0

[183] 4859.42: Prepend “\*” to CDMG-P2.1.

Edward: Implemented in D4.0

[184] 4859.44: Prepend “\*” to CDMG-P2.2.

Edward: Implemented in D4.0

[185] 4859.47: Prepend “\*” to CDMG-P2.3.

Edward: Implemented in D4.0

[186] 4861.8: Prepend “\*” to CMMG-P2.1.

Edward: Implemented in D4.0

[187] 4861.12: Prepend “\*” to CMMG-P2.2.

Edward: Implemented in D4.0

[188] 4861.16: Prepend “\*” to CMMG-P2.3.

Edward: Implemented in D4.0

[189] 4862.32: Replace “Service Information Response” with “Service information response”.

Edward: Implemented in D4.0

[190] 4864.56: Replace “CFHEM6.1” with “HEM6.1”.

Edward: Implemented in D4.0

[191] 4864.59: Replace “CFHEM6.2” with “HEM6.2”.

Edward: Implemented in D4.0

[192] 4865.64: Prepend “\*” to HEM11.1.

Edward: Implemented in D4.0

[193] 4866.12: Prepend “\*” to HEM11.2.

Edward: Implemented in D4.0

[194] 4877.6 and 4877.12: There are two “EDMG-M8.3” with different protocol capabilities. Please fix it.

Edward: Implemented in D4.0

[195] 4881.16: Replace “Support of one spatial streams” with “Support of one spatial stream”.

Edward: Implemented in D4.0

[196] 4883.8: Replace “?” with \pi.

Edward: Implemented in D4.0

[197] 4883.11: Replace “?” with \pi.

Edward: Implemented in D4.0

[198] 4890.6: Replace “WUR PN Update procedure” with “WUR PN update procedure”.

Edward: Implemented in D4.0

[199] 4890.18: Replace “WUR Discovery” with “WUR discovery”.

Edward: Implemented in D4.0

Action: Change as suggested except for 18, 92, 93 and 94 which we will do through comment process.

[TGme Editor P2] Change as suggested except for 18, 92, 93 and 94 which we will do through comment process.

#### Annex G – Frame exchange sequences

No volunteer – Robert to fix style guide

## ANA

Check for correct use of numbers against database.

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

Robert Stacey

|  |  |  |
| --- | --- | --- |
| **Resource** | **Reference** | **Notes** |
| AKM suite selectors | 9.4.2.23.3 | OK |
| Authentication algorithm numbers | 9.4.1.1 | Value 1 should be released. Draft is OK. |
| Behavior limits | E.1 | No longer applicable. |
| Capabilities | 9.4.1.4 | Values 2, 3, 4, 6, 14, 15 should be released. Draft is OK. |
| Categories | 9.4.1.11 | Value 33 allocated but not used in draft. Was a TGay allocation. |
| Cypher suites | 9.4.2.23.2 | OK |
| Protocol Version | 9.2.4.1.2 | OK |
| Frame types | 9.2.4.1.3 | OK |
| Control subtypes | 9.2.4.1.3 | Value 15 should be released. Draft is OK. |
| Data subtypes | 9.2.4.1.3 | OK |
| Management subtypes | 9.2.4.1.3 | OK |
| Extended subtypes | 9.2.4.1.3 | OK |
| Extended Control values | 9.2.4.1.3 | Rename value 7 to “Grant Ack”. Rename value 0 to “Sector Ack”. Rename value 1 to “Block Ack Schdule”. Allocate value 11 as “TDD Beamforming”. |
| Element IDs | 9.4.2.1 | Values 17-31 should be released. Value 77 should be released. Draft OK. |
| Element ID Extension 1 | 9.4.2.1 | Value 0 should be released. Draft OK. |
| RSNXE | 9.4.2.240 | OK |
| RSNE | 9.4.2.23.4 | OK |
| Extended Capabilities | 9.4.2.25 | Value 76 is reserved in draft but allocated (TGaq) in database. Otherwise OK. |
| FT sublement IDs | Table 9-219 | Rename value 1 to “PMK-R1”. Remame value 3 to “PMK-R0”. Allocate: 5 = OCI, 6 = BIGTK, 7 = WIGTK. |
| FILS Discovery Frame Control subfield | Figure 9-1127 | OK |
| ANQP Info ID | Table 9-412 | 280 was released but shown in draft as Network Authentication Type with Timestamp. 283, 284, 285 conflict with TGbc. 286 without allocation. |
| Public Action frames | 9.6.7.1 | Values 35-38 rename: DCT -> DCS. Otherwise OK. |
| Reason codes | 9.4.1.7 | Value 69 is TIME\_SYNC\_LOST in draft, but reserved in database (previous TGak allocation). Value 70 in database is TIME\_SYNC\_LOST. Otherwise OK. |
| Status codes | 9.4.1.9 | Value 48 should be released. Some names missing in database. Otherwise OK. |
| PV1 frame types | 9.8.3.1 | OK |
| PV1 Control frame subtypes | 9.8.4.1 | OK |
| PV1 Management frame subtypes | 9.8.5.1 | OK |
| Subelement neighbor report | 9.4.2.35 | OK |
| Spectrum management action frames | 9.6.2.1 | OK. Should be released from ANA control. |
| TLV encodings |  | Release 4, 5, and 6. (no reference in draft) |
| WNM notification type | 9.6.13.29 | OK |
| USA operating classes | Table E-1 | OK |
| Europe operating classes | Table E-2 | OK |
| Japan operating classes | Table E-3 | Release 2-7, 9-10, 12-16, 18-19, 21-24, 27-28, 35, 38, 40, 43, 45, 47-50, 52-55. Draft OK. |
| Global operating classes | Table E-4 | Release 61-63. Allocate 77. Release 112-114. |
| Dot11smt | C | OK |
| Dot11phy | C | OK |
| Dot11StationConfig | C | 189 dot11UnsolicitedBAActivated used without allocation. |
|  |  |  |

Actions:

Robert will allocation new numbers for the numbers in conflict for ANQP Info IDs. REVme editor will update draft with new numbers.

Robert will update the database for the remaining issues so that the database aligns with REVme.

[TGme Editor] Accept all suggested changes in this section. Note that those changes have already been incorporated in D3.1.

## MIB

Yongho Soek

### Detailed proposed changes

* MIB Detail

The compiled MIB is embedded as the following.

* Original MIB file



* Fixed MIB file after compilation



The following two error will be fixed by updating the revision dates before the publication.

* mibs/IEEE802dot11-MIB:34: [3] {revision-after-update} revision date after last update
* mibs/IEEE802dot11-MIB:52: [3] {revision-missing} revision for last update is missing

TGme editor refers the following diff file to fix the MIB errors.



NOTE- I removed the followings.

< dot11CountersGroup6Subset1(12),

< dot11CountersGroup6Subset1(13),

< dot11CountersGroup6Subset1(14),

< dot11CountersGroup6Subset1(15),

< dot11CountersGroup6Subset1(12),

< dot11CountersGroup6Subset1(13),

< dot11CountersGroup6Subset1(14),

< dot11CountersGroup6Subset1(15),

Please refer the below error messages. Because I couldn’t understand the intention of the above definitions, I removed those redundant definitions for compiling.

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:6853: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

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mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

mibs/IEEE802dot11-MIB:8609: [2] {enum-name-redefinition} redefinition of name `dot11CountersGroup6Subset1' in number enumeration

[Robert: The problem is that the name “dot11CountersGroup6Subset1” is being used for different values. The name needs to be unique. The CID tag in the draft references a comment that does not seem to pertain to the change. We might have to track down the origin of this change to determine the intent. The enum name does not seem to be referenced in the draft but the numbers (11, 12, …, 15) are referenced. The most appropriate change seems to be to to make the names unique. I would suggest: dot11CountersGroup6Subset1, dot11CountersGroup6Subset2, etc.]

[TGme Editor P2] at page 5019 and page 5053, change cited texts to:

< dot11CountersGroup6Subset1(12),

< dot11CountersGroup6Subset2(13),

< dot11CountersGroup6Subset3(14),

< dot11CountersGroup6Subset4(15),

Emily: Implemented in D4.0

# Collateral findings

# IEEE-SA MEC

|  |
| --- |
| Dear Robert Stacey:I have completed the pre-ballot review of Draft 3 of IEEE P802.11™, and I have made comments (below) that will help ensure your draft is ready for ballot.Section I comments shall be resolved before the ballot begins. The draft *cannot* be balloted or recirculated until these issues are resolved.Section II comments shall be resolved before the final recirculation. These issues have to be resolved, then reviewed by balloters.Please note that comprehensive formatting and editing (i.e., spelling, punctuation, grammar) will take place after the draft has been approved. This MEC addresses only issues that may stand in the way of IEEE SA Standards Board approval.Thank you for the opportunity to review this draft. If you have any queries about the comments in this MEC, please contact Michelle Turner via email (m.d.turner@ieee.org).Your OPM Program Manager, Christy Bahn will assist you with next steps**SECTION I: Shall be resolved before the ballot begins.****COPYRIGHT1****Permission letters for borrowed content2**Copyright permission letters for borrowed text (including definitions), tables, and figures shall be submitted to IEEE prior to the start of ballot. Submit all copyright permission letters to your OPM Program Manager.**SECTION II: Shall be resolved before the final recirculation.****TRADEMARKS or SERVICE MARKS3****ACTION:**References to commercial equipment or products in a standard shall be generic and shall not include trademarks or other proprietary designations.IEEE standards shall not include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical or scientific in nature.I may have not identified all, however, please review to help ensure commercial terms/trademarks are not used in the draft to help ensure it is in compliance with the policy.1. Wi-Fi Alliance
2. Museum of Modern Art
3. Narita’s Hotspot

**REGISTRATION OBJECTS4**Drafts containing a registration of objects shall be submitted to the IEEE Registration Authority (IEEE RA) for mandatory coordination. The text containing the registration information should be highlighted in the draft, and the clause should be noted in the email to the IEEE RA.5**NORMATIVE REFERENCES and BIBLIOGRAPHY6** **Normative references**References listed in Clause 2 shall be cited in normative text within the document so that their role and relationship is understood by the user for implementation of the standard.Documents published by other organizations may be cited provided the document is publicly available at a reasonable cost and it includes the edition or date of publication. Normative references within the standard, are not permitted to contain commercial terms.8802.3-2018 is cited in the normative reference clause. There is a 2022 version, if the intent is to cite a specific part of the dated document do you want to use the 2022 version? Or if you want to user to refer to the latest edition only the date can be left off.**METRICATION**Standards submitted for approval should use metric units exclusively in the normative portions of the standard. Metric units shall be the primary unit of measurement where applicable. Inch-pound units may be included in parentheses after the metric units if the Standards Committee believes that the users of the document would benefit from the inclusion of inch-pound units, based on concerns for safety or clarity.9,10**GRAPHICS**Quality of line art and photos shall comply with minimum requirements for print reproduction.11Separate electronic files of figures shall be supplied (unless created in Microsoft® Word® or Adobe® Framemaker®). |

[Edward to review MEC ]

[01] As referred to subclause 5.1.4, it said “There are two LLC sublayer protocols used (see IEEE Std 802): LLC Protocol Discrimination (LPD) (see ISO/IEC 8802-2:1998) and (#2186)EtherType Protocol Discrimination (EPD) (see IEEE Std 802.3-2018). MSDUs are formatted in accordance with LPD or with EPD, as determined by the first condition below that is true. After a true condition has been found, subsequent conditions are ignored”. As per IEEE SA staff’s comment, can we replace “IEEE Std 802.3-2018” with “IEEE Std 802.3-2022”?

[02] As per Annex M.2, it said “If the DS uses LPD and the portal connects to a network that uses EPD, for example IEEE Std 802.3-2018, the integration function converts MSDUs exiting the DS from LPD to EPD format and those entering the DS from EPD to LPD”. As per IEEE SA staff’s comment, can we replace “IEEE Std 802.3-2018” with “IEEE Std 802.3-2022”?

Action on 1 and 2: submit as comments

[03] 175.38: Replace “IEEE Std 802.1AS™” with “IEEE Std 802.1AS™-2020”.

Edward: Implemented in D4.0

[04] 175.45: It seems that “IEEE Std 802.1Q™-2003, IEEE Standard for local and metropolitan area networks—Virtual Bridged Local Area Networks” is a duplicated (or outdated) one of “IEEE Std 802.1Q™, IEEE Standard for Local and Metropolitan Area Networks—Bridges and Bridged Networks”.

Edward: Implemented in D4.0

[05] 176.39: re “References listed in Clause 2 shall be cited in normative text within the document”, “IETF RFC 3490, Internationalizing Domain Names in Applications (IDNA), Mar. 2003” is not cited in normative text. It is cited in a NOTE only at 2763.8.

Action on 5: submit as comment

[06] 341.61: Replace “described in ISO/IEC Technical Report 11802-5:1997” with “described in ISO/IEC 11802-5:1997”.

Edward: Implemented in D4.0

Action on 3, 4 and 6: as suggested.

[TGme Editor P2] change as suggested for Item 3, 4, and 6. Edward will submit SB comments for 1,2, and 5.