IEEE P802.11
Wireless LANs

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| Resolutions for some recirculation SA ballot comments |
| Date: 2020-09-07 |
| Author: |
| Name | Affiliation | Address | Phone | Email |
| Edward Au | Huawei Technologies | 303 Terry Fox Drive, Suite 400, Ottawa, Ontario K2K 3J1 |  |  |

##### This submission present a resolution for CIDs 5082 (EDITOR2), 5080 (EDITOR2), 5077 (EDITOR2), 5052 (EDITOR2), 5023 (EDITOR2), 5072 (EDITOR2), 5015 (EDITOR2), 5067 (EDITOR2), 5060 (EDITOR2), 5059 (EDITOR2), and 5012 (EDITOR). The proposed changes are based on REVmd/D4.0.

##### Revision history:

##### R0 – initial version

##### R0 – Add 5012 (EDITOR)

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| --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change |
| 5082 | 12.4.4.2.3 | 2560 | 59 | The two lines starting "Otherwise" need to be indented as much as the line starting "Assign" above | As it says in the comment |

***Discussion:***

The following is the paragraph of interest:

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**Proposed resolution for CID 5082 (EDITOR2):**

Accept.

*Note to the Editors: The alignment is shown below for reference.*



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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5080 |  |  |  | CDMG AP or PCP Capability Information and CMMG AP or PCP Capability Information should be "… Or …" as for DMG AP or PCP Capability Information | Change "MG AP or PCP Capability Information" to "MG AP Or PCP Capability Information" throughout (~12 instances) |

***Discussion:***

The commenter is correct about the capitalization of “of” for the following fields:

* CDMG AP Or PCP Capability Information field
* CMMG AP Or PCP Capability Information field

**Proposed resolution for CID 5080 (EDITOR2):**

Accept.

*Note to the Editors: the location of these instances is shown below for reference.*

At 1443.18 (Figure 9-730—CDMG Capabilities element format), replace “CDMG AP or PCP Capability Information” with “CDMG AP Or PCP Capability Information”.

At 1434.45 (Title of subclause 9.4.2.219.3), replace “CDMG AP or PCP Capability Information field” with “CDMG AP Or PCP Capability Information field”.

At 1434.47, replace “The CDMG AP or PCP Capability Information field” with “The CDMG AP Or PCP Capability Information field”.

At 1434.47 and 1434.63, replace “CDMG AP or PCP Capability Information field format” with “CDMG AP Or PCP Capability Information field format”.

At 1445.15 (Figure 9-753—CMMG Capabilities element format), replace “CMMG AP or PCP Capability Information” with “CMMG AP Or PCP Capability Information”.

At 1453.34 (Title of subclause 9.4.229.6), replace “CMMG AP or PCP Capability Information field” with “CMMG AP Or PCP Capability Information field”.

At 1453.36, replace “The CMMG AP or PCP Capability Information field” with “The CMMG AP Or PCP Capability Information field”.

At 1453.37 and 1453.56, replace “CMMG AP or PCP Capability Information field format” with “CMMG AP Or PCP Capability Information field format”.

At 1454.1, 1454.3, 1993.16, and 1993.20, replace “CMMG AP or PCP Capability Information field” with “CMMG AP Or PCP Capability Information field”.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5077 | B.4 |  |  | I think we have managed to agree that however many antennas we might have for tx and/or for rx, we have a single transmit antenna connector and a single receive antenna connector (which may be the same antenna connector). So we should only talk of connector(s) when it's about both tx and rx | Change "antenna connector(s)" to "antenna connector" in B.4 (2x). Also change the reference for \*HRDS13 and HRDS13.1 to 16.3.6.11 Transmit and receive impedance at the antenna connector, not 16.3.6.7 (Transmit and receive in-band and out-of-band spurious emissions |

***Discussion:***

There are 4 instances of “antenna connector(s)” in Draft 4.0:

At 3089.58:



At 3473.23:



At 3642.19:



At 3672.34:



These 4 instances can be replaced by “antenna connector” and “Antenna connector” accordingly.

The commenter is also correct that the reference to HRDS13 and HRDS13.1 is subclause 16.3.6.11 (Transmit and receive impedance at the antenna connector), not 16.3.6.7 (Transmit and receive in-band and out-of-band spurious emissions).

**Proposed resolution for CID 5077 (EDITOR2):**

Revised.

At 3089.58 and 3473.23, replace “antenna connector(s)” with “antenna connector”.

At 3642.19 and 3672.34, replace “Antenna connector(s)” with “Antenna connector”,

At 3672.34 and 3672.39, replace “16.3.6.11 (Transmit and receive impedance at the antenna connector)” with “16.3.6.7 (Transmit and receive in-band and out-of-band spurious emissions)”.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5052 |  | 135 |  | Figures 9-983 and 9-892 are in the wrong order | Sort numerically |

***Discussion:***

The wrong order appears in the table of contents:



**Proposed resolution for CID 5052 (EDITOR2):**

Accept.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5023 | 11.44 | 2517 | 35 | The MLME primitive name has a hyphen, "ESTIMATED-THROUGHPUT" | Insert a hyphen, to read "MLME-ESTIMATED-THROUGHPUT.request" |

***Discussion:***

The paragraph of interest is shown as follows:



**Proposed resolution for CID 5023 (EDITOR2):**

Accept.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5072 |  |  |  | Followup to CID 4671. The change made under this CID (tagged as 4726 for some reason) suggests that we don't need to say "shall be set to 1" but just "shall be set" | At 1891.24 change "The NonERP\_Present bit shall be set to 1" to "The NonERP\_Present bit shall be set" |

***Discussion:***

CID 4671 is shown as follows:

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| CID | Comment | Proposed Change | Proposed Change |
| 4671 | "the SAE hash-to-PWE bit" - no such bit, and they're called subfields anyway. And set to what? | Change to "to 1 the SAE hash-to-element subfield". In 12.4.4.2.2/3 change "indicate support for the SAE hash-to-element in its Extended RSN Capabilities field" to "set the SAE hash-to-element subfield in its Extended RSN Capabilities field to 1". In 12.4.4.2.3 change "setting the SAE hash-to-element bit in the Extended RSN Capabilities field" to "setting to 1 the SAE hash-to-element subfield in the Extended RSN Capabilities field" | REVISED (PHY: 2020-07-15 21:51:16Z)Relative to D3.3 at 2731.13, change"SAE hashto-PWE"to"SAE hash-to-element"Note to Commenter: It’s called a “bit field”, a field composed of bits. Table 9-321, which describes this field of bits, has a column “Bit”. So there is a bit and it’s bit number 5 according to table 9-321. |

In CID 4671, the proposed change of using “setting” the bit “to 1” is not accepted. In Draft 4.0, the sentence is written as:

*An SAE peer, e.g. a mesh STA or an AP, indicates support for direct hashing to obtain an ECC password element by setting the SAE hash-to-element bit in the Extended RSN Capabilities field in all Beacon and* *Probe Response frames.*

The paragraph of interest under CID 5072 is as follows:



For the other 5 instances of “NonERP\_Present bit” in subclause 10.27, “set to 1” is used. Actually, we use “set to 1” for bit fields. Therefore, there exists a conflict of editorial style.

**Proposed resolution for CID 5072 (EDITOR2):**

Revised.

At 2559.47, replace

*An SAE peer, e.g. a mesh STA or an AP, indicates support for direct hashing to obtain an ECC password element by setting the SAE hash-to-element bit in the Extended RSN Capabilities field in all Beacon and* *Probe Response frames.*

with

*An SAE peer, e.g. a mesh STA or an AP, indicates support for direct hashing to obtain an ECC password element by setting the SAE hash-to-element bit to 1 in the Extended RSN Capabilities field in all Beacon and* *Probe Response frames.*

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5015 | 23.3.18.1 | 3426 | 43 | 256QAM 5/6 is not supported in 2MHz | Replace -67 with N/A |

***Discussion:***

256-QAM 5/6 is actually supported in 2 MHz for *NSS* = 3 as shown below:



**Proposed resolution for CID 5015 (EDITOR2):**

Rejected.

256QAM 5/6 is supported in 2 MHz as shown in Table 23-47.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5067 | 10.24.2.8 |  |  | It's not clear what the vertical dotted lines represent in Figures 10-26 and 10-27, apart from the ones at each side (which represent the limits of the TXOP) | Delete the vertical dotted lines from Figures 10-26 and 10-27, except the leftmost and rightmost one in each case |

***Discussion:***





The corresponding description of these two figures is located at 1826.33:



Following the figures such as Figure 10-13 below, the vertical dot lines are not required:



**Proposed resolution for CID 5067 (EDITOR2):**

Accept.

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5060 | O.3 |  |  | Something awful has happened to Figure O-2 | Fix the horror that has befallen Figure O-2. |

***Discussion:***

The following is the figure of interest:

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**Proposed resolution for CID 5060 (EDITOR2):**

Accept.

*Note to the Editors: The revised figure is shown as follows:*



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| --- | --- | --- | --- | --- | --- |
| CID | Clause | Page | Line | Comment | Proposed Change |
| 5059 |  |  |  | ASCII glyphs for <= and >= should be proper Unicode ones | Change “<=” to “≤” in 9.2.5.2 Setting for single and multiple protection under enhanced distributed channel access (EDCA) (2x), 10.54.5.4 Relay-shared TXOP protection mechanisms (2x), Figure 11-35—Example negotiation and measurement exchange sequence, ASAP=0, and FTMs Per Burst = 2, Figure 11-36—Example negotiation and measurement exchange sequence, ASAP=1 FTMs Per Burst = 2 (and also add “, and” before “FTMs”), Figure 11-37—Example negotiation and measurement exchange sequence for a single burst instance, ASAP=1, and FTMs Per Burst = 3, Table 12-1—Hash algorithm based on length of prime (4x), 12.4.4.2.2 Generation of the password element with ECC groups by looping, 23.3.20 PHY receive procedure (2x), Table D-4—Maximum STA transmit power and maximum BW allowed (4x).Change “>=” to “≥” in Figure 11-35—Example negotiation and measurement exchange sequence, ASAP=0, and FTMs Per Burst = 2, Figure 11-36—Example negotiation and measurement exchange sequence, ASAP=1 FTMs Per Burst = 2 (and also add “, and” before “FTMs”), Figure 11-37—Example negotiation and measurement exchange sequence for a single burst instance, ASAP=1, and FTMs Per Burst = 3, 11.22.6.4 Measurement exchange body, Figure 23-5—Timing boundaries for S1G PPDU fields (and put a space after) (2x).Change “-” to a minus glyph in the last bullet in 9.2.5.2 Setting for single and multiple protection under enhanced distributed channel access (EDCA). |

**Proposed resolution for CID 5059 (EDITOR2):**

Revised:

Change “<=” to “≤” in the following locations:

824.26 (twice), 2116.5 (twice), 2368.8, 2369.15, 2370.9, 2555.41 (twice), 2555.43 (twice), 2558.33, 3444.37 (twice), 4379.55 (twice), and 4379.59 (twice).

Change “>=” to “≥”in the following locations:

2368.21, 2369.19, 2370.15, 2371.5, 3355.13, 3355.30

Add a space after “≥”in the following locations:

3355.13, 3355.30

Change “-” to a minus glyph in the following location:

824.26

At 2369.54, replace “Example negotiation and measurement exchange sequence, ASAP=1 FTMs Per Burst = 2” with “Example negotiation and measurement exchange sequence, ASAP=1, and FTMs Per Burst = 2”.

Note to the commenter: 11.22.6.4 (Measurement exchange body) should be 11.21.6.4 (Measurement exchange body)

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| CID | Clause | Page | Line | Comment | Proposed Change |
| 5012 | 6.3.7.4.2 | 364 | 36 | The valid range of OperationalRateSet for DMG BSS should be 0-12, 9.1, 12.1-12.6, or 25-31, after DMG OFDM mode has been obsoleted. | as in comment |

***Discussion:***

The following is the paragraph of interest:



As per subclause 20.1.1 (Scope of DMG PHY services), the following MCSs are supported:



**Proposed resolution for CID 5012 (EDITOR):**

Revised:

At 324.55, 342.10, 364.36, 384.33, 397.60, replace

“DMG BSS: 0-24, 9.1, or 12.1-12.6, for each member of the set” with

“DMG BSS: 0-12, 9.1, 12.1-12.6, or 25-31 for each member of the set”.

At 328.46, replace

“DMG BSS: 0-12, 9.1, or 12.1-12.6, for each member of the set” with

“DMG BSS: 0-12, 9.1, 12.1-12.6, or 25-31 for each member of the set”.