IEEE P802.11
Wireless LANs

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| Proposed Resolution of TGme CIDs 6181 |
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Abstract

Proposed resolution for the comments to the first WG LB of 802.11REVme D4.0 to CID 6181 is provided.

*Discussion:*

A proposal was made in 11-23/1747r3 to provide a revised resolution:

Revised.

At 1042.1, change “Operating Class and Channel Number field” to “Operating Class and Channel Number fields”

The current draft standard clearly defines and properly uses “Operating Class and Channel Number fields”. No confusion. No need to change “and” to “And” in either “Operating Class and Channel Number fields” or “Operating Class and Channel field”.

However, the discussion of this resolution led to a conclusion that more work was required (see 11-23/1923r1 p24, 5.7.2.

The specification uses the following names:

1. Operating Class and Channel field – which is a defined field consisting of an Operating Class field and a Channel field. This field is used in several places and in some locations multiple Operating Class and Channel fields are used in elements or other fields. Hence there is a need to have this pair of fields (Operating Class and Channel fields) be a field.
2. Operating Class field – is used in many locations in the specification.
3. Channel Number field – is used in many locations in the specification.
4. The phrase “Operating Class and Channel Number fields” is also used in many locations in the specification to refer to these two fields.
5. The phrase “Operating Class and Primary Channel subfields” is also used to refer to these two subfields.

Hence it is easy to confuse the “Operating Class and Channel field” a single field with the phrase “Operating Class and Channel Number fields” which refers to two fields, particularly when the specification is referring to multiple “Operating Class and Channel fields”.

*Resolution:*

Revised.

Make the following editorial changes:

Change “Operating Class and Channel field” to be the “Operating Class And Channel field” at the following locations in D4.1: 789.26 (clause title), 40 (figure title), 28, 29, 1120.17, 21, 24, 28, 29, 30, 31, 1142.59, 61 (also field should be singular, not plural), 1816.7, 19, 2725.57, 59 – note fields is plural, 2727.48, 2729.9 (also fix capitalization of “class”).

Add the noun “field” so that the text reads: “the Operating Class and Channel Number fields together” at the following location in D4.1: 901.20, 924.39, 927.63, 938.33, 1607.36.

Change “Operating Class and Channel Number field” to be “Operating Class and Channel Number fields” at 1042.1 in D4.1.

*Details:*

Draft P802.11REVme D4.1 uses:

Operating Class and Channel field – which is defined in 9.4.1.22 (789.25) and in Figure 9-160 (789.35). This field consists of two fields: the Operating Class field and the Channel field. The Operating Class and Channel field is used in:

1. Location Indication Channels subelement – 1120.17, 21, 24, 28, 29, 30, 31
2. Channel Usage element 1142.59, 61 (should be field).
3. WUR Operation element: The WUR Operating Class subfield uses the same encoding as the Operating Class and Channel field 1504.9, the WUR Channel subfield uses the same encoding as the Channel field 1504.17.
4. WUR Discovery element: The WUR Discovery Operating Class field uses the same encoding as the Operating Class and Channel field 1510.14, WUR Discovery Channel field uses the same encoding as the Channel field 1510.20.
5. WUR Discovery frame 1816.7, 1816.19,
6. Channel usage procedures – 2725.57, 59 – note the possible plurality of fields, 2727.48, 2729.9.

Recommend renaming the “Operating Class and Channel field” to be the “Operating Class And Channel field” as it is a single field, at all the above locations.

The specification also refers to the Operating Class field and the Channel Number fields, which are two fields used in:

1. The Measurement Request field for the Channel Load request (899.32)
2. The Measurement Request field for Noise Histogram request (901.12). Note the Measurement Request field also has an Optional Subelements field which may contain a Wide Bandwidth Channel Switch subelement when it does the Operating Class and Channel Number fields specify the primary channel and primary 40 MHz channel) – Therefore the noun is missing add “fields” between “Number” and “together” 901.20.
3. The Beacon request Measurement Request Field (903.4). Also at 903.44, 907.21, 906.52, 906.54, 907.12 – capitalization and noun are correct.
4. The Directional Channel Quality Request Measurement Request field (924.39) the capitalization is correct, but the noun is missing, insert “fields” between Number and together.
5. The Directional Measurement Request Measurement Request field (927.63) the capitalization is correct, but the noun is missing, insert “fields” between Number and together.
6. The Channel Load report Measurement Report field (936.59) the capitalization is correct and at 937.7 the capitalization and noun are correct.
7. The Nose Histogram report 938.25, at 938.33 the capitalization is correct but the noun is missing, insert “fields” between Number and together.
8. The Beacon report 940.24, 940.33
9. The Frame report 943.1, 943.10
10. Directional Channel Quality report 979.23
11. Directional Measurement report 983.40
12. Directional Statistics report 985.30
13. Neighbour Report element 1042.1 – “Operating Class and Channel Number field” should be “Operating Class and Channel Number fields”
14. RIC Descriptor element 1066.50
15. Extended Channel Switch Announcement element – 1066.63 “operating class and the channel number of the new channel” looks fine, this is descriptive and not referring to the fields.
16. Multi-band element 1222.12, 16
17. Session Transition element 1234.54 the fields are in the Multi-Band element. Need to check.
18. Public Action frame 1607.27, at 1607.36 the capitalization is correct, but the noun is missing, insert “fields” between Number and together.
19. DSE Measurement Request frame – 1611.51
20. DSE Measurement Report frame – 1612.34
21. Network Channel Control frame – 1620.65
22. DCS Measurement Request frame – 1646.11 and 1647.1
23. DCS Measurement Response frame – 1647.46 and 1648.35
24. DCS Request Frame – 1649.12
25. DCS Response frame - 1649.47
26. STA procedures to transmit a GAS Query Request 2751.13
27. General FST rules 2815.7
28. FST TS switching – 2822. 55
29. Discovery assistance – 2833.11
30. NCC requesting STA – 2872.40, 2873.1,
31. NCC responding STA – 1873.1.31, 58.
32. Reduced neighbour report – 2894.9.
33. WUR Channel – 4719.28 (WUR Operating Class and WUR Channel subfields)
34. WUR Beacon frame – 4724. 23 (WUR Operating Class and WUR Channel subfields)
35. WUR discovery – 4745.54 (WUR Discovery Operating Class and WUR Discovery Channel fields)

Operating Class and Primary Channel subfields are referenced:

1. FILS Discovery frame in non-HT duplicate PPDUs – 1643.18
2. FILS Discovery frame transmission 2878.41

The specification also uses lower case to reference the concepts of operating class and channel number:

1. Basic ADDTS Request frame variant – 1587.54
2. DMG ADDTS Request frame variant – 1588.54
3. Basic ADDTS Response frame variant – 1590.2
4. DMG ADDTS Response frame variant – 1590.60
5. DELTS frame format – 1591.54
6. ADDBA Request frame format – 1596.1, 1587.13
7. DELBA frame format – 1598.16
8. GAS Initial Request frame – 1615.58
9. GAS Initial Response frame – 1617.28
10. GAS Comeback Request frame – 1618.11, 1619.39
11. Group Addressed GAS Request frame – 1653.19.
12. Group Addressed GAS Response frame – 1654.18.
13. Processing channel switch announcement – operating class– 2551.13
14. Selecting and advertising a new channel - operating class – 2555.50, 56, 65
15. Selecting and advertising a new channel in an IBSS – operating class – 2558.12, 16
16. Beacon report – 2565.49
17. Switching between 40 MHz and 20 MHz – 2611.1 – Consider change “channel” to “channel number” (if so, there are multiple instances of channel that should be changed 2611.2, 6, 8, 11.
18. Channel usage procedures - 2729.23
19. Transitioning between states – 2819.7, 2821.7, 32, 64,
20. FILS procedures – 2878.40 (operating class and primary channel)
21. Reduced neighbour report – 2894.11, 38 (operating class and primary channel),

Supported Operating Class –

1. Requesting existing BSS to migrate to a new channel – 2888.63.

In MIB –

1. 5178.39 “Operating Class and Channel octet pairs”
2. 5184.27, 5192.12, 5211.44, 5214.55, 5220.22, 5224.54, 5264.2, 5269.34, 5298.49, 5300.63, 5321.38, 5335.8, 5337.27, 5340.23, “Operating Class, and Channel Number”
3. 5683.46, 58 “operating class”

**References:**