IEEE P802.11
Wireless LANs

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| Comment Resolution for Subclause 8.4.2.170w |
| Date: 2014-03-12 |
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Abstract

This submission proposes resolutions for comments in clause 8.4.2.170w of TGah Draft 1.0 with the following CIDs: 1151, 1152, 1440, 1784, 2044, 2045, 2046, 2047, 2304, 2305, 2552 and 2737.

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGah Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGah Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGah Editor: Editing instructions preceded by “TGah Editor” are instructions to the TGah editor to modify existing material in the TGah draft. As a result of adopting the changes, the TGah editor will execute the instructions rather than copy them to the TGah Draft.***

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| **CID** | **Clause Num** | **P** | **L** | **Comment** | **Propose Change** | **Resolution** |
| 1151 | 8.4.2.170w | 124 | 36 | A TBD gets my automatic "no" vote. | Resolve all TBDs in the draft. | Revised.TGah editor to make changes shown in 11-14-r0359r0 |
| 1152 | 8.4.2.170w | 125 | 6 | "Bitmap of B0-B4 indicates the operating channel "If this field is actually a structure, show them. | Show a figure for this field that has named subfields. Define the subfields in the usual way. | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 1440 | 8.4.2.170w | 124 | 24 | There are many TBDs in the S1G Operation element which need to be addressed. Also the Primary Channel Number refers to the 2MHz primary channel. What about BSS operating only in a 1MHz channel? | Address TBDs and clarify PCN for 1Mhz BSS. | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 1784 | 8.4.2.170 | 124 | 52 | The bitwidth for the Primary channel number in the S1G Operation information field is TBD. Additionally, method for computing physical channel frequency for S1G is inflexible. Because countries may eventually have more than one band of operation, consider including Global operating class field (in addition to channel index field) to aid in determining starting frequency in channel frequency calculation | Fill in the TBD value for the Primary channel number bitwidth. Modify definition for computing physical channel frequency from contents of this field in the S1G, to make starting frequency a function of Global operating class. Modify Global operating class tables in Annex E to be consistent for all countries and fill in Behavior limits (which are currently TBD). | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2044 | 8.4.2.170w | 124 | 36 | TBDs in the S1G Operation element format | Define the TBD octets | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2045 | 8.4.2.170w | 124 | 53 | TBDs in the S1G Operation Informatrion field | Define the TBD octets | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2046 | 8.4.2.170w | 125 | 30 | TBDs in the table | Define the TBD encoding | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2047 | 8.4.2.170w | 125 | 48 | TBDs in the Basic S1G-MCS and NSS Set | Define the TBD bits | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2304 | 8.4.2.170w | 124 | 6 | "B1 is set to 1 when the S1G BSS allows the 2MHz PPDU transmission"Can an AP set B1 to 0 and B4 to1 which allows 16MHz transmission and not allow 2MHz transmission? | Clarify it. | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2305 | 8.4.2.170w | 124 | 24 | 11n/11ac allows an AP removes low MCS from Basic MCS Set. But 11ah removes the feature. | Add the related feature. | Revised.TGah editor to make changes shown in 11-14-359r0 |
| 2592 | 8.4.2.170w | 125 | 38 | A term "Basic VHT-MCS and NSS Set field" shall be "Basic S1G-MCS and NSS Set field". | Replace "Basic VHT-MCS and NSS Set field" by "Basic S1G-MCS and NSS Set field". | Agree. |
| 2737 | 8.4.2.170w | 124 | 24 | TBD are found | provide the specific number for TBDs | Revised.TGah editor to make changes shown in 11-14-359r0 |

***Editorial instruction: Change subclause 8.2.170w as following:***

* S1G Operation element(#863,866)

The operation of S1G STAs in the BSS is controlled by the S1G Operation element. The format of the S1G Operation element is defined in Figure 8-401ea (S1G Operation element format).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Element ID | Length | S1G Operation Information | Basic S1G-MCS and NSS Set |
| Octets: | 1 | 1 | 4 | 2 |
| * S1G Operation element format
 |

The Element ID field is set to the value for S1G Operation element defined in Table 8-55 (Element IDs).

The structure of the S1G Operation Information field is defined in Figure 8-401eb (S1G Operation Information field).

|  |  |  |
| --- | --- | --- |
| Channel Width | Operating Class | Primary Channel Number |

 Octets: 1 2 1

|  |  |  |
| --- | --- | --- |
|  |  |  |
|  |  |  |
| * S1G Operation Information field
 |

The subfields of the S1G Operation Information field are defined in Table 8-191n (S1G Operation Information subfields).

|  |
| --- |
| * S1G Operation Information subfields
 |
| **Fields** | **Definition** | **Encoding** |
| Channel Width  | This field defines the BSS operating channel width (see 10.47.1 (Basic S1G BSS functionality) also).  | Bitmap of B0-B4 indicates the operating channel widths, 1/2/4/8/16MHz.B0 to B4 are defined in Table 10-22.B6 is reserved.B7 is set to 1 to indicate MCS10 is permitted. B7 is set to 0 to indicate MCS10 is permitted but not recommended.  |
| Operating Class | This field defines the oprating class that the BSS is operating in. | The operating class of the BSS |
| Primary Channel Number | Primary Channel Number field indicates the channel number of 2MHz primary channel or 1MHz primary channel. | Channel number of the primary channel |

The Basic S1G-MCS and NSS Set field indicates the S1G-MCSs for each number of spatial streams in S1G PPDUs that are supported by all S1G STAs in the BSS.

Each Max S1G-MCS combined with the related Min S1G-MCS indicate the supported S1G-MCS set for NSS from 1 to 4.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Min S1G-MCS For 1 SS | Max S1G-MCS For 1 SS | Min S1G-MCS For 2 SS | Max S1G-MCS For 2 SS | Min S1G-MCS For 3 SS | Max S1G-MCS For 3 SS | Min S1G-MCS For 4 SS | Max S1G-MCS For 4 SS |

Bits: 2 2 2 2 2 2 2 2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Bits: |  |  |  |  |
| * Basic S1G-MCS and NSS Set
 |

The Max S1G-MCS For *n* SS subfield (where *n*=1,...,4) is same as the field defined in S1G Capabilities element.

The Min S1G-MCS For *n* SS subfield (where *n*=1,...,4) is encoded as follows:

— 0 indicates no minimum MCS restriction for *n* spatial streams

— 1 indicates S1G-MCS 0 for *n* spatial streams is not recommended

— 2 indicates S1G-MCS 0 and 1 for *n* spatial streams is not recommended

— 3 is reserved

In a sensor-only BSS, there is no minimum MCS restriction.

***Editorial instruction: Add a new subclause in 9.7.12:***

**9.7.12.3 Additional rate selection constraints for S1G PPDUs**

The following apply for a STA that transmits a S1G PPDU:

— If the channel width of the PPDU is equal to CBW1, CBW2, CBW4, CBW8 or CBW16, then the STA should not use a <S1G-MCS, NSS> tuple if the S1G-MCS is equal to 0 and the Min S1G-MCS For n SS subfield in the Basic S1G-MCS and NSS Set field of the S1G Operation element of the receiver STA is equal to 1.

— If the channel width of the PPDU is equal to CBW1, CBW2, CBW4, CBW8 or CBW16, then the STA should not use a <S1G-MCS, NSS> tuple if the S1G-MCS is equal to 0 or 1 and the Min S1G-MCS For n SS subfield in the Basic S1G-MCS and NSS Set field of the S1G Operation element of the receiver STA is equal to 2.

— If the channel width of the PPDU is equal to CBW1, then the STA should not use a <S1G-MCS, NSS> tuple if the S1G-MCS is equal to 10 and the B7 of the Channel Width subfield in the S1G Operation Information field of the S1G Operation element of the receiver STA is equal to 0.