IEEE P802.11
Wireless LANs

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| LB 200 cluase 7.3 comment resolution |
| Date: 2013-12-18 |
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Abstract

This submission proposes comment resolutions of the clause 7.3 from TGah Draft 1.0.

* CIDs: 1032, 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791, 1824

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** | **Page** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1032 | 27.19 | 7.3.5.11.2 | ", a TVHT STA" -- why is this insertion here? .11af has no business (i.e. it is outside the scope of the .11ah PAR) to modify the TVWS operation. | Remove cited text. | Accepted- Agree with the comment. |
| 1033 | 28.10 | 7.3.5.11.2 | I don't understand why secondary40 is at all relevant to a "secondary 4 MHz channel". | Give S1G its own secondary 4 and secondary 8 entries. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1412 | 28.30 | 7.3.5.11.2 | The relationship of the channel-list parameter elements to the 1MHz, 4MHz, ..." Shouldn't 2MHz be included as well? | As in comment. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1577 | 27.40 | 7.3.5.11.2 | the reference is wrong in this table | change the reference to "24.3.18.5.4 (CCA sensitivity for signals occupying the primary 2MHz channel and/or primary 1MHz channel" | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1578 | 27.53 | 7.3.5.11.2 | the reference is wrong in this table | change "...according to the rules specified in 24.3.18.5.3 (CCA sensitivity for signals occupying the primary 2MHz channel)." to"according to the rules specified in 24.3.18.5.5 (CCA sensitivity for signals not occupying the primary 2MHz channel)." in row "secondary";change" 24.3.18.5.4" to "24.3.18.5.5" in this table. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1579 | 28.10 | 7.3.5.11.2 | the reference is wrong in this table | Modify the reference to "24.3.18.5.5" to all added text. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1773 | 27.24 | 7.3.5.11.2 | No technical reason why names of channel list elements must be shared with those of 11n/11ac. For example, it makes it more confusing when secondary20 actually corresponds to secondary 2MHz channel. Additionally, "primary" element needs to be split to distinguish Primary 1MHz and Primary 2MHz. Current naming and definitions of channel list parameters don't match those defined in CCA section, 24.3.18.5 | Create separate table to define elements specific for 11ah, rather than share terminology with 11n/11ac. Separate definitions for Primary2 and Primary1, since EDCA for 1 and >=2MHz transmissions are separate procedures. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1787 | 27.54 | 7.3.5.11.2 | The meaning for the "secondary" channel list element in Table 7-5 is wrong. "For an S1G STA, indicates that the secondary 2MHz channel is busy according tothe rules specified in 24.3.18.5.3 (CCA sensitivity for signals occupying the primary2MHz channel)." | The statement should instead read as "For an S1G STA, indicates that the secondary 2MHz channel is busy according tothe rules specified in 24.3.18.5.3 5 (CCA sensitivity for signals not occupying the primary2MHz channel). | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1788 | 28.23 | 7.3.5.11.2 | The meaning for the "secondary1" channel list element in Table 7-5 is wrong. It should have a separate rule for CCA sensitivity for signals not occuping the primary 1 MHz signal, | The meaning should instead read as "For an S1G STA, indicates that the secondary 1MHz channel is busy according tothe rules specified in 24.3.18.5.4x (CCA sensitivity for signals not occupying the primary21MHz channel)."Also an appropriate clause for this needs to be added in 24.3.18.5.x. | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1789 | 27.41 | 7.3.5.11.2 | Incorrect mention of clause number in meaning of primary CCA in Table 7-5 | Clause number should be 24.3.18.5.4 instead of 24.3.18.5.3 | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1790 | 28.11 | 7.3.5.11.2 | Incorrect mention of clause number in meaning of secondary40 CCA in Table 7-5 | Clause number should be 24.3.18.5.5 instead of 24.3.18.5.4 | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1791 | 28.19 | 7.3.5.11.2 | Incorrect mention of clause number in meaning of secondary80 CCA in Table 7-5 | Clause number should be 24.3.18.5.5 instead of 24.3.18.5.4 | Revised- TGah editor to make changes shown in 11-13-1522r0 under the heading for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791 |
| 1824 | 50.31 | 7.3.5.11.2 | Not sure why "by example" is included here. Suggest delete | Delete "by example" | Rejected-Figure 7-1a just shows one example of channel-list parameter element. |

**Discussion:**

Comment asked to define the new channel-list elements for a S1G operation. I agree with the comment. There is no technical reason of reusing the existing channel-list elements defined in 11n and 11ac.

**Propose:**

Revised for CID 1033, 1412, 1577, 1578, 1579, 1773, 1787, 1788, 1789, 1790, 1791, per discussion and editing instructions in 11-13/1522r0.

***TGah editor: Modify the sub-clause 7.3 as the following:***

**7.3.5.11 PHY-CCA.indication**

**7.3.5.11.2 Semantics of the service primitive**

***Change the following paragraph in the subclause 7.3.5.11.2 of TGac D5.0 as follows:***

When STATE is IDLE or when, for the type of PHY in operation, CCA is determined by a single channel, the channel-list parameter is absent. Otherwise, it carries a set indicating which channels are busy. The channel-list parameter in a PHYCCA.indication primitive generated by a VHT STA~~, a TVHT STA,~~ and an S1G STA contains at most a single element. Table 7-5 (Channel-list parameter elements) defines the members of this set.

***Change Table 7-5 in the subclause 7.3.5.11.2 of TGac D5.0 as follows:***

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| --- |
| **Table 7-5 - Channel-list parameter elements** |
| **Channel-list elements** | **Meaning** |
| primary | For an HT STA that is not a VHT STA, indicates that the primary 20 MHz channel is busy.For a VHT STA, indicates that the primary 20 MHz channel is busy according to the rules specified in 22.3.19.5.3 (CCA sensitivity for signals occupying the primary 20 MHz channel).For a TVHT STA, indicates that the primary channel is busy according to the rules specified in 23.3.19.5.3 (CCA sensitivity for signals occupying the primary channel).~~For an S1G STA, indicates that the primary 2MHz channel is busy according to the rules specified in 24.3.18.5.3 (CCA sensitivity for signals occupying the primary 2MHz channel).~~ |
| secondary | For an HT STA that is not a VHT STA, indicates that the secondary channel is busy.For a VHT STA, indicates that the secondary 20 MHz channel is busy according to the rules specified in 22.3.19.5.4 (CCA sensitivity for signals not occupying the primary 20 MHz channel).For a TVHT STA, indicates that the secondary channel is busy according to the rules specified in 23.3.19.5.4 (CCA sensitivity for signals not occupying the primary channel).~~For an S1G STA, indicates that the secondary 2MHz channel is busy according to the rules specified in 24.3.18.5.3 (CCA sensitivity for signals occupying the primary 2MHz channel).~~ |
| secondary40 | For a VHT STA, indicates that the secondary 40 MHz channel is busy according to the rules specified in 22.3.19.5.4 (CCA sensitivity for signals not occupying the primary 20 MHz channel).For a TVHT STA, indicates that the secondaryTVHT\_2W channel is busy according to the rules specified in 23.3.19.5.4 (CCA sensitivity for signals not occupying the primary channel).~~For an S1G STA, indicates that the secondary 4MHz channel is busy according to the rules specified in 24.3.18.5.4 (CCA sensitivity for signals not occupying the primary 2MHz channel).~~ |
| secondary80 | For a VHT STA, indicates that the secondary 80 MHz channel is busy according to the rules specified in 22.3.19.5.4 (CCA sensitivity for signals not occupying the primary 20 MHz channel).~~For an S1G STA, indicates that the secondary 8MHz channel is busy according to the rules specified in 24.3.18.5.4 (CCA sensitivity for signals not occupying the primary 2MHz channel).~~ |
| primary1 | For a S1G STA, indicates that the primary 1 MHz channel is busy according to the rules specified in 24.3.18.5.4 (CCA sensitivity for signals occupying the Primary 2MHz and/or Primary 1MHz Channel). |
| primary2 | For a S1G STA, indicates that the primary 2 MHz channel is busy according to the rules specified in 24.3.18.5.4 (CCA sensitivity for signals occupying the Primary 2MHz and/or Primary 1MHz Channel). |
| secondary2 | For an S1G STA, indicates that the secondary 2 MHz channel is busy according to the rules specified in 24.3.18.5.5 (CCA sensitivity for signals not occupying the primary 2MHz channel). |
| secondary4 | For an S1G STA, indicates that the secondary 4 MHz channel is busy according to the rules specified in 24.3.18.5.5 (CCA sensitivity for signals not occupying the primary 2MHz channel). |
| secondary8 | For an S1G STA, indicates that the secondary 8 MHz channel is busy according to the rules specified in 24.3.18.5.5 (CCA sensitivity for signals not occupying the primary 2MHz channel). |

***Insert the following paragraph and Figure at the end of the subclause 7.3.5.11.2 of TGac D5.0 as follows:***

For a S1G STA, the relationship of the channel-list parameter elements to the 1 MHz, 2 MHz, 4 MHz, 8 MHz and 16 MHz BSS operating channel is illustrated by example in Figure 7-1a (The channel-list parameter elements to the 1 MHz, 2 MHz, 4 MHz, 8 MHz and 16 MHz channel width).

***ReplaceFigure 7-1a with the followingfigure:***



**Figure 7-1a—The channel-list parameter elements to the 1MHz, 2 MHz, 4 MHz, 8 MHz and 16 MHz channel width**

***TGah editor: Modify the sub-clause 9.20.2.9 as the following:***

**9.20.2.9 EDCA channel access in an S1G BSS**

***Change the following table (Table 9-20a) as follows:***

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| **Table 9-20a—Channels indicated idle by the channel-list parameter** |
| **PHY-CCA.indication channel-list element** | **Idle channels** |
| primary1 | None |
| ~~secondary1~~ | ~~Primary 1 MHz channel~~ |
| primary2 | Primary 1 MHz channel |
| secondary2 | Primary 2 MHz channel |
| secondary4~~0~~ | Primary 2 MHz channel and secondary 2 MHz channel |
| secondary8~~0~~ | Primary 2 MHz channel, secondary 2 MHz channel and secondary 4 MHz channel |