IEEE P802.11
Wireless LANs

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| LB 200 Comment Resolution for Channel Switching Methods |
| Date: 2014-01-01 |
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Abstract

This submission proposes resolutions for comments in clause 10.47 of TGah Draft 1.0 with the following CIDs:

1549

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** | **P.L** | **Clause** | **Comment** | **Proposed Change** | **Resolution** |
| 1549 | 228.41 | 10.47 | Channel switching methods for S1G are currenlty undefined. | Enable channel switching for S1G in a similar way as for VHT (see subclause 10.39.4 in 802.11ac D5.0. Will submit a resolution document. | Agree with the commenter. Revised – TGah editor to make changes shown in 11-14-0037-00-00ah under the heading for CIDs 1549. |

**Discussion:** *Agree with the commenter. Channel switching methods for S1G are currently missing. Proposed resolution is to enable Extended Channel Switching in a similar way as done for VHT.*

**Instruction to TGah Editor:*****Add the following subclause immediately after subclause 10.47.2:***

**10.47.2a Channel switching methods for an S1G BSS**

A S1G AP announces a switch of operating channel by using the Extended Channel Switch Announcement element, Extended Channel Switch Announcement frame or both, following the procedure described in 10.10 (Extended channel switching (ECS)).

A S1G AP may also announce a switch of operating channel width, a new Country String field (possibly including a new Operating Class table number), new operating classes or new TPC parameters for the BSS that come into effect at the same time as the switch of operating channel.

The New Channel Number field in the Extended Channel Switch Announcement element or Extended Channel Switch Announcement frame identifies the primary channel after the switch. The value of the New Channel Number field is set to the value that dot11CurrentPrimaryChannel (see 24.3.13 Channelization)) will have after the switch.

* **Extended Channel Switch Announcement frame format**

**Instruction to TGah Editor:*****Change this subclause as follows (@802.11ac D5.0):***

***Change Figure 8-449 as shown:***

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  | Zero or one | Zero or one | Zero or more |
|  | Category | Public Action | Channel Switch Mode | New Operating Class | New Channel Number | Channel Switch Count | Mesh Channel Switch Parameters element | New Country element | Wide Bandwidth Channel Switch element | New VHT Transmit Power Envelope element |
| Octets: | 1 | 1 | 1 | 1 | 1 | 1 | 6 | variable | variable | variable |
| * **Extended Channel Switch Announcement frame Action field format**
 |

***Insert the following paragraphs at the end of this subclause:***

The New Country element is present when an AP or mesh STA performs extended channel switching to a new Country, Operating Class Table or a changed set of Operating Classes relative to the contents of the Country element sent in the Beacon; otherwise this element is not present. The format of the New Country element is defined to be the same as the format of the Country element (see 8.4.2.10 (Country element)), except that no Subband Triplet fields are present in the New Country element. The Country String field in(#7134) the New Country element indicates the Country and Operating Class Table of the BSS after extended channel switching and Operating Triplet fields within the New Country element indicate the operating classes of the BSS after extended channel switching (see 10.39.1 (Basic VHT BSS functionality)).

This Wide Bandwidth Channel Switch element is present either when extended channel switching to a channel width wider than 40 MHz, or when the frame carrying the element is an S1G PPDU; otherwise this element is not present. The Wide Bandwidth Channel Switch element is defined in 8.4.2.163 (Wide Bandwidth Channel Switch element). The Wide Bandwidth Channel Switch element indicates the BSS operating channel width(#7393) after extended channel switching (see 10.39.1 (Basic VHT BSS functionality)).

Each New VHT Transmit Power Envelope element that is present is defined to have the same format as the VHT Transmit Power Envelope element (see 8.4.2.164 (VHT Transmit Power Envelope element)) and includes a distinct value of the Local Maximum Transmit Power Unit Interpretation(#7131). If present, the New VHT Transmit Power Envelope element indicates the maximum transmit powers for the BSS for the indicated bandwidths with an indicated unit interpretation(#7131) after extended channel switching (see 10.39.1 (Basic VHT BSS functionality)).

* **Wide Bandwidth Channel Switch element**

**Instruction to TGah Editor:*****Change this subclause as follows (@802.11ac D5.0):***

The Wide Bandwidth Channel Switch element is included in Channel Switch Announcement frames, as described in 8.5.2.6 (Channel Switch Announcement frame format), Extended Channel Switch Announcement frames, as described in 8.5.8.7 (Extended Channel Switch Announcement frame format), and TDLS Channel Switch Request frames, as described in 8.5.13.7 (TDLS Channel Switch Request frame format). The format of the Wide Bandwidth Channel Switch element is shown in Figure 8-401bw.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element ID | Length | NewChannel Width | NewChannel Center Frequency Segment 0 | NewChannel Center Frequency Segment 1 |
| Octets: 1 | 1 | 1 | 1 | 1 |
| * **Wide Bandwidth Channel Switch element format**
 |

The Element ID field is set to the value for the Wide Bandwidth Channel Switch element in Table 8-54 (Element IDs).

The Length field is set to 3.

If the value of the New Operating Class field in the Extended Channel Switch Announcement frame does not indicate an S1G band, the subfields New Channel Width, New Channel Center Frequency Segment 0 and New Channel Center Frequency Segment 1 have the same definition, respectively, as Channel Width, Channel Center Frequency Segment 0 and Channel Center Frequency Segment 1 in the VHT Operation Information field, described in Table 8-183x (VHT Operation Information subfields). Otherwise, the subfields New Channel Width, and New Channel Center Frequency Segment 0 have the same definition, respectively, as the Channel Width, and the Primary Channel Number in the S1G Operation Information field, described in Table 8-401eb (S1G Operation Information subfields). The New Channel Center Frequency Segment 1 subfield is reserved.