IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Comment Resolutions for Subclause10.47 | | | | |
| Date: 2014-07-17 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Liwen Chu | Marvell |  |  | liwenchu@marvell.com |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Abstract

This submission proposes comment resolutions for subclause 10.47:

3196, 3197, 3198, 3199, 3201, 3865, 3866, 3995, 4080.

The 802.11 baseline is based on 802.11REVmc D3.0.

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.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Clause Num** | **P** | **L** | **Comment** | **Propose Change** | **Resolution** |
| 3196 | 10.47.1 | 334 | 47 | Why is it that only the AP declares its channel width capability? This applies to any STA so remove " that is an S1G AP" from P334L47. Also note that the field in the S1G Cap element is called Supported Channel Width. Hence "Set" is redundant so remove it (idem in P335L2). | As in comment. | Accept. |
| 3197 | 10.47.1 | 334 | 55 | Table 10-25b contains the possible values of B0-B4 of the Channel Width field while B5-B7 are not described anywhere. Similarly the BSS BW field of the S1G Beacon frame and setting the last bit of the FC field of the Short Probe Response frame is missing. Also fix the reference to Table 10-22 is instead the Table 10-25b. | Clarify in this paragraph how B5 is set. Also how the BSS BW of the S1G Beacon (in this paragraph) and the Primary 1MHz location field of the Short Probe Responses that are transmitted by the AP that sets up the BSS (probably at the end of 10.47.2). Replace 10-22 with 10-25b in P334l57. | Revise.  Discussion: per the comment, we need to add the related description of B5 to B7 per the definition in subclause 8.4.2.170v. S1G Beacon uses BSS Bandwidth field to indicate BSS operation bandwidth also. The text about making this field consistent with S1G Operation element should be added in 10.47.1.  TGah Editor: TGah editor to make changes shown in 11-14/959r5 under CID 3197 |
| 3198 | 10.47.1 | 335 | 31 | Subclause 10.22.6.4.2 needs to be amended accordingly to add normative text for S1G STAs. Clarify how the procedures Dynamic AID assignment, use of PV1 frames etc work here. | As in comment. | Revise. See CID 3966 resolution.  Discussion: the resolution of CID 3966 aready covers CID 3198. |
| 3199 | 10.47.1 | 335 | 38 | The exception of 1 MHz control response frames is missing. | Add the exception of 1 MHz control response frames. | Revise.  Discussion: the text about where to transmit 1MHz control response frames with >=2MHz BSS operation channels is missing in the paragraph.  TGah Editor: TGah editor to make changes shown in 11-14/959r5 under CID 3199, 3865 |
| 3201 | 10.47.6 | 337 | 64 | Clarify that in <S1G-MCS, NSS> tuple the S1G MCS refers to the Max S1G-MCS subfield and that Min S1G-MCS indicates recommented values as described in 9.7.12a.1. | As in comment. | Revise.  Discussion: 8.4.2.170v and 9.7.12a define basic S1G-MCS and NSS Set. Add text in 10.47.6 for this clarification.  TGah Editor: TGah editor to make changes shown in 11-14/959r2 under CID 3201 |
| 3865 | 10.47.1 | 335 | 35 | It is not possible that a BSS has 1MHz operation channel and 2MHz primary channel.  It is ok to transmit 1MHz PPDU in a BSS with 2/4/8/16 operation channel. | Fix the problems mentioned in the comment. | Revise.  Discussion: 1MHz operation channel should be removed from the sentence.  TGah Editor: TGah editor to make changes shown in 11-14/959r5 under CID 3199, 3865 |
| 3866 | 10.47.1 | 335 | 59 | "An S1G STA that is a member of an S1G BSS with a 16 MHz operating channel width shall not transmit a 16 MHz S1G PPDU that does not use the primary 8 MHz channel and the secondary 8 MHz channel of the BSS, except for a 16 MHz S1G PPDU transmission either on an off-channel TDLS direct link or on a permitted channel of the SST operation."  It seems this is not possible. | Remove the paragraph. | Revise.  Discussion: agree with the commenter.  TGah Editor: TGah editor to make changes shown in 11-14/959r5 under CID 3866 |
| 3955 | 10.47.3 | 336 | 63 | As a Channel Switch Wrapper element is not included in an S1G Beacon nor Probe Response frame, it is not possible to use an Extended Channel Switch Announcement element in an S1G Beacon or Probe Response frame to announce a switch to an 8 MHz or 16 MHz operating channel. | Insert a following text at the end of the first paragraph of the subclause 10.47.3 (Channel Switching methods for an S1G BSS); --- If the S1G AP announces a switch to an 8 MHz or 16 MHz operating channel, the S1G AP shall use the Extended Channel Switch Announcement frame. | Revise  Discussion: it is better to allow 8MHz/16MHz channel switch through S1G Beacon and Probe Response in 11ah. The S1G Beacon, Probe Response should be allowed to include Wide Bandwidth Channel Switch element. Last-1 in S1G Beacon already allows this inclusion.  TGah Editor: TGah editor to make changes shown in 11-14/959r5 under CID 3955 |
| 4080 | 10.47 |  |  | I object to the resolution of CID 2531. resolution refers to non-existent Annex B material on 11ah Rev 2 | See comment. | Reject  Discussion: this comment is not resolvable. |

10.44c S1G BSS operation

10.44c.1 Basic S1G BSS functionality

*802.11ah Editor: change 3rd(for CID 3196), 4th ( for CID 3197) paragraph in subclause 10.44c.1 as following:*

An S1G STA declares its channel width capability in the Supported Channel Width subfield of the S1G Capabilities element S1G Capabilities Info field as described in Table 8-240f (Subfields of the S1G Capabilities Info field).

An S1G STA that is an S1G AP shall set the Channel Width subfield in the S1G Operation Information field of the S1G Operation element to indicate the BSS operating channel width as defined in Table 10-25b (S1G BSS operating channel width) , the location of 1MHz primary channel as defined in Table 8-240q and whether MCS10 is permitted but not recommended as defined in Table 8-240q. Table 10-25b (S1G BSS operating channel width) is the only combination allowed in an S1G BSS operation. The Channel Width field in the S1G Operation element not listed in Table 10-25b shall not be declared by an S1G STA that is an S1G AP.

*802.11ah Editor: change the 7th paragraph in subclause 10.44c.1 as following (for CID 3199, 3865):*

An S1G STA that is a member of an S1G BSS with a 2 MHz, 4 MHz, 8 MHz or 16 MHz operating channel width and 2 MHz primary channel width shall not transmit a 1 MHz S1G PPDU in a 1MHz channel that is not the 1MHz channel indicated by B5 of the Chanel Bandwidth subfield in the S1G Operation element as defined in 8-240q, except for a 1 MHz S1G PPDU transmission on an off-channel TDLS direct link or a 1 MHz S1G PPDU transmission by an SST STA as constrained by 9.47 (Subchannel Selective Transmission (SST)).

*802.11ah Editor: change the 11th paragraph in subclause 10.44c.1 as following (for CID 3866):*

An S1G STA that is a member of an S1G BSS with a 16 MHz operating channel width shall not transmit a 16 MHz S1G PPDU that does not use the primary 8 MHz channel and the secondary 8 MHz channel of the BSS, except for a 16 MHz S1G PPDU transmission on an off-channel TDLS direct link.

*802.11ah Editor: add the following paragraph to the end of subclause 10.44c.1(for CID3197):*

An S1G STA shall set the BSS BW field in the Frame Control field of the S1G Beacon frame inline with the values defined in Table 10-25b (S1G BSS operating channel width) that are included in the S1G Operation element transmitted by the STA.

10.44c.6 BSS basic S1G-MCS and NSS set operation

*802.11ah Editor: add the following paragraph at the end of subclause 10.44c.6 (for CID 3201):*

The BSS basic S1G-MCS and NSS set is defined by Max S1G-MCS which indicate the mandatory values and Min SIG-MCS which indicate the recommended values as defined in 8.4.2.170v (S1G Operation element) and 9.7.12a (Rate Selection constraints for S1G STAs).

**8.3.3.10 Probe Response frame format**

*802.11ah Editor: Change Notes column of Order 62 (Channel Switch Wrapper element) in Table 8-42 in subclause 8.3.3.10 as following (CID 3955):*

The Channel Switch Wrapper element is optionally present if

dot11VHTOptionImplemented is true and at least one Channel

Switch Announcement element or Extended Channel Switch

Announcement element is also present in the Beacon frame and the

Channel Switch Wrapper element contains at least one subelement.

The Channel Switch Wrapper element is optionally present if

dot11TVHTOptionImplemented is true and at least one of a

Channel Switch Announcement element or an Extended Channel

Switch Announcement element is also present in the Beacon frame

and the Channel Switch Wrapper element contains at least one

subelement.

The Channel Switch Wrapper element is optionally present if dot11S1GOptionImplemented is true and Extended Channel

Switch Announcement element is present in the Probe Response.