IEEE P802.11
Wireless LANs

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| LB200 Proposed Comment Resolutions for 8.4.1.8, 8.4.1.24 and 8.4.1.25 |
| Date: 2014-02-19 |
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Abstract

This submission proposes resolutions for following MAC comments of P802.11ah D1.0 WG Letter Ballot (LB200):

* 2594, 2559, 2560

R0: Initial

| **CID** | **Page** | **Clause** | **Comment** | **Proposed Change** |
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| 2594 |  | 8.4.1.8 | It is necessary to extend the range of the AID field (8.4.1.8) while it is used in the AID element (8.4.2.166 of P802.11ac) and the AID element is used in the DLS Request/response and TDLS Setup Request/Response frames. | Insert the subclause 8.4.1.8 (AID field) and modify the 2nd paragraph as follows:---A non-DMG STA assigns the value of the AID in the range 1-2007 for a non-S1G STA and 0-8191 for an S1G STA, and places it in the 14 LSBs of the AID field, with the two MSBs of the AID field set to 1 (see 8.2.4.2 (Duration/ID field)). |

**Discussion**

The IEEE P802.11ah D1.0 subclause 9.17b (Group ID, partial AID, UPLINK and Color in S1G PPDUs) specifies that an S1G STA transmitting an S1G PPDU to a DLS or TDLS peer STA obtains the AID for the peer STA from the DLS Setup Request, DLS Setup Response, TDLS Setup Request or TDLS Setup Response frame.

The DLS Setup Request, DLS Setup Response, TDLS Setup Request and TDLS Setup Response frame include the AID element (IEEE Std 802.11ac-2013 subclause 8.4.2.166) which includes AID field (8.4.1.8). Therefore, it is necessary to extend the range of the AID filed value for S1G STA.

**Proposed Resolution:**

Revised

### 8.4.1.8 AID field

*Instructions to TGah Editor: Modify the second paragraph as follows (Based on IEEE P802.11REVmc D2.0):*

A non-DMG STA assigns the value of the AID in the range 1–2007 for a non-S1G STA and 0–8191 for an S1G STA, and places it in the 14 LSBs of the AID field, with the two MSBs of the AID field set to 1 (see 8.2.4.2 (Duration/ID field)).

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| 2559 |  | 8.4.1.24 | In the subclause 8.4.1.24 (PSMP Parameter Set field) of IEEE P802.11mc D1.1, a PSMP Sequence Duration filed is defined as 10bit width in units of 8us. The maximum duration is 8.184ms which is too short for the S1G STA, while maximum duration of S1G PPDU is 27.840ms (from aPPDUMaxTime in Table 24-37). | Insert the subclause 8.4.1.24 (PSMP Parameter Set field), and change unit of PSMP Sequence Duration field to 80us from 8us if dot11S1GOptionImplemented is true. |
| 2560 |  | 8.4.1.25 | In the subclause 8.4.1.25 (PSMP STA Info field) of IEEE P802.11mc D1.1, the maximum value of PSMP-DTT Start Offset field, PSMP-DTT Duration field, PSMP-UTT Start Offset field, and PSMP-UTT Duration Field is too small for an S1G STA. | Insert the subclause 8.4.1.25 (PSMP STA Info field), and change the unit of PSMP-DTT Start Offset field and PSMP-UTT Start Offset field to 40us from 4us and change the unit of PSMP-DTT Duration field and PSMP-UTT Duration field to 160us from 16us, if dot11S1GOptionImplemented is true. |

**Discussion**

The IEEE P802.11mc D2.0 subclause 8.4.1.24 (PSMP Parameter Set field) specifies the PSMP Sequence Duration subfield indicates the duration of the current PSMP sequence in units of 8 μs. As the length of the PSMP Sequence Duration subfield is 10bits, the maximum PSMP sequence with duration of is 8.184 ms.

The duration of S1G PPDU with 64 octet payload (MSDU), short MAC frame format, 1MHz bandwidth, and MCS10 is 4.92 ms as follows;

 STF = 4 symbols

 LTF = 4 symbols

 SIG = 6 symbols

 Data = ⌈(8\*(16+64) + 8 + 6 – 1) / 6⌉ = 109 symbols (acc. to equation 24-70)

 PPDU duration = 40μs \* (4 + 4 + 6 + 109) = 4920 μs

A PSMP sequence cannot exchange multiple PSDUs with current maximum PSMP sequence duration, and is not usable for an S1G STA. It is necessary to extend PSMP sequence duration and other timing values for the S1G STA.

**Proposed Resolution:**

Revised

### 8.4.1.24 PSMP Parameter Set field

*Instructions to TGah Editor: Modify the last paragraph as follows (Based on IEEE P802.11REVmc D2.0):*

The PSMP Sequence Duration subfield indicates the duration of the current PSMP sequence that is described by the PSMP frame~~, in units of 8 μs,~~ relative to the end of the PSMP frame. If dot11S1GOptionImplemented is true, it is specified in units of 80 μs. If dot11S1GOptionImplemented is false, it is specified in units of 8 μs. Therefore, this field can describe a PSMP sequence with a duration of up to 81.84 ms if dot11S1GOptionImplemented is true and up to 8.184 ms otherwise. The next PSMP sequence within the current PSMP burst starts a SIFS after the indicated duration.

### 8.4.1.25 PSMP STA Info field

*Instructions to TGah Editor: Modify the 4th paragraph and the 5th paragraph as follows (Based on IEEE P802.11REVmc D2.0):*

The PSMP-DTT Start Offset subfield indicates the start of the PSMP-DTT for the destination identified by the PSMP STA Info field, relative to the end of the PSMP frame, in units of 40 μs if dot11S1GOptionImplemented is true and in units of 4 μs otherwise. This subfield locates the start of the first PPDU containing downlink data for this destination.

The PSMP-DTT Duration subfield indicates the duration of the PSMP-DTT for the destination identified by the PSMP STA Info field, in units of 160 μs if dot11S1GOptionImplemented is true and in units of 16 μs otherwise. This subfield locates the end of the last PPDU containing downlink data for this destination relative to the PDMP-DTT start offset.

*Instructions to TGah Editor: Modify the 9th paragraph and the 10th paragraph as follows (Based on IEEE P802.11REVmc D2.0):*

The PSMP-UTT Start Offset subfield indicates the start of the PSMP-UTT. The offset is specified relative to the end of the PSMP frame. It is specified in units of 40 μs if dot11S1GOptionImplemented is true and in units of 4 μs otherwise. The first PSMP-UTT is scheduled to begin after a SIFS from the end of the last PSMP-DTT described in the PSMP.

The PSMP-UTT Duration subfield indicates the maximum length of a PSMP-UTT for a STA. PSMP-UTT duration is specified in units of 40 μs if dot11S1GOptionImplemented is true and in units of 4 μs otherwise. All transmissions by the STA within the current PSMP sequence lie within the indicated PSMP-UTT.