<table>
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<tr>
<th>Project</th>
<th>IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a></th>
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<tr>
<td>Title</td>
<td>Clarification of MBS-MAP message</td>
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<td>Source(s)</td>
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<td>POSDATA Co., Ltd.</td>
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<td>Re:</td>
<td>IEEE P802.16e/D7.</td>
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<tr>
<td>Abstract</td>
<td>This presentation clarifies MBS-MAP message format.</td>
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<tr>
<td>Purpose</td>
<td>Review and adoption of the proposed text change into IEEE P802.16e/D7.</td>
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Clarification of MBS-MAP message

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POSDATA Co., Ltd.

1. Problem Statements

1.1 Backward Reference of MBS Data Burst
When MBS data bursts are located by MBS_DATA_IE as specified in the current draft [1], backward reference by MBS-MAP can occur. This occurs when the start symbol of an MBS data burst precedes that of MBS_DATA_IE in the MBS-MAP message. We can prevent MBS_DATA_IE from pointing the MBS data burst backward if the last slot used for MBS-MAP message ends always before the first slot of MBS data bursts. We need to specify this condition in the current draft [1].

1.2 MBS Downlink Burst Profile Update Time
When a burst profile changes, it takes time for the MS to apply a new one after the new burst profile is informed. According to the current draft [1], there is no description when the new MBS Downlink Burst Profile shall be applied. We need to define MBS_Downlink_Burst_Profile_Update_Time.

2 Remedy

[Add the underlined sentence to line 32, page 119 of 6.3.2.3.56]

6.3.2.3.56 Multicast Broadcast Service Map (MBS-MAP) message
The BS may send an MBS-MAP message on an MBS portion to describe the MBS connections serviced by the MBS portion. When a MBS-MAP is sent, the connections need be described in the DL-MAP, but a MBS_MAP_IE() shall be substituted instead. When MBS-MAP is written in the MBS portion, the last slot used for MBS-MAP message shall end before the first slot of any MBS data burst starts.

[Change Table 108p, page 120 of 6.3.2.3.56 as follows:]

Table 108p – MBS-MAP

<table>
<thead>
<tr>
<th>Syntax</th>
<th>Size (bits)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBS-MAP Message Format (){}</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Management Message Type = 62</td>
<td>4</td>
<td>--</td>
</tr>
<tr>
<td>Frame number</td>
<td>4</td>
<td>The frame number is identical to the 4LSBs of the frame number in the DL-MAP.</td>
</tr>
</tbody>
</table>
MBS\_DIUC\_Downlink\_Burst\_Profile\_Change\_Count | 8 | -- |
--- | --- | --- |
#MBS\_DATA\_IE | 4 | The number of included MBS\_DATA\_IE. |
For (i=0; i<n; i++) { n=#MBS\_DATA\_IE |
MBS\_DATA\_IE () | Variable | -- |
} |
#MBS\_DATA\_Time\_Diversity\_IE | 4 | The number of included MBS\_DATA\_Time\_Diversity\_IE |
For (i=0; i<m; i++) { m=#MBS\_DATA\_Time\_Diversity\_IE |
MBS\_DATA\_Time\_Diversity\_IE () | Variable | -- |
} |
If (!byte boundary){ -- |
Padding Nibble | 4 | -- |
} |
MBS\_Downlink\_Burst\_Profile\_Update\_Time | 12 | The MS shall apply the new MBS\_Downlink\_Burst\_Profile in the number of frames specified in the field. |
reserved | 4 | -- |
TLV encoding element |
} |

Figure 1: MBS-MAP

[Change line 45~49, page 120 as follows:]

MBS\_DIUC\_Downlink\_Burst\_Profile\_Change\_Count

It is used to notify the Burst Profile used for Multi-BS-MBS data has been changed. If MBS\_DIUC\_Downlink\_Burst\_Profile\_Change\_Count changes, the MBS-MAP shall include Downlink\_Burst\_Profile TLV and when it shall be applied. MS should wait until receiving DCD message unless Downlink Burst Profile TLV is included in MBS-MAP message.

MBS Downlink Burst Profile Update Time

This field notifies when MS will apply the new MBS Downlink\_Burst\_Profile. The MS shall update its MBS Downlink Burst Profile as specified in the field. The unit of MBS Downlink Burst Profile Update Time is the number of frames.
3 References