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Title	**Transmission Information of Customized MOB_NBR-ADV**	
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Re:	IEEE 802.16j-07/019; Call for technical comments regarding IEEE project 802.16j	
Abstract	This contribution proposes a method to provide the instruction to transmit MOB_NBR-ADV that is composed by RS.	
Purpose	Discussion and adoption in IEEE 802.16j	
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Transmission Information of Customized MOB_NBR-ADV

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Introduction

According to the baseline document (802.16j-06/026r4), RS can compose MOB_NBR-ADV message for its service area. Under centralized scheduling when a MR-BS generates DL-MAP for the MSs in the RS's service area, the MR-BS has to know the bandwidth required for the customized MOB_NBR-ADV so that the MR-BS can compose an appropriate DL-MAP IE for the MOB_NBR-ADV message. This DL-MAP IE contains the information on the burst allocation region for the MOB_NBR-ADV message so that the RS transmits the MOB_NBR-ADV message at the designated time and the location.

Suggested Remedy

In case of centralized scheduling, when RS composes a MOB_NBR-ADV message for MSs in its service area the RS provides the MR-BS with the information on how much bandwidth is required to transmit the MOB_NBR-ADV message. To specify the required bandwidth for MOB_NBR-ADV message, a new BM BR header can be defined using one reserved type of extended MAC signaling header type II.
When the MR-BS receives the BM BR header, it composes the DL-MAP including the DL-MAP IE that indicates the region information for the MOB_NBR-ADV and provides the region information to the RS by transmitting BM_Allocation IE in relay zone. The BM_Allocation IE specifies the frame number and the region information for the RS to broadcast the MOB_NBR-ADV at the designated time and the location.

Proposed Text Change

[Replace line 30 through 31 with the followings at section 6.3.22.1.1 in page 112]

Under centralized scheduling, the RS may inform the MR-BS about the required bandwidth to broadcast the customized MOB_NBR-ADV by transmitting a BM BR header. The RS shall transmit the MOB_NBR-ADV at

the frame number and the region specified in BM_Allocation IE which is sent by the MR-BS to indicate the region of the MOB_NBR-ADV in the DL-MAP message for RS's service area.

[Insert the followings at the end of table 19a in page 9]

4	BM BR header		
5~~4~~-7	Reserved		

[Insert new subclause 6.3.2.1.2.2.2.5 at line 21 in page 14]

6.3.2.1.2.2.2.5 Broadcast Message bandwidth request header (BM BR)

BM BR header shall be sent by a RS to its MR-BS to specify the required bandwidth for the purpose of transmitting broadcast messages over access link that are composed by the RS. The format of this header is illustrated in Figure A and described in Table B.

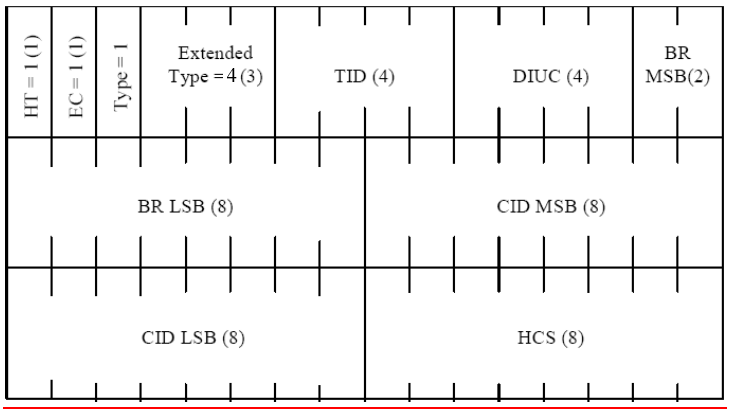

Figure A – BM BR header format

Table B – BM BR header

Syntax	Size	Notes
BM BR Header(){		
HT	1bit	Shall be set to 1
EC	1bit	Shall be set to 1
Type	1bit	Shall be set to 1
Extended TYPE	3bits	Shall be set to 004 for BM BR header
TID	4bits	Transaction ID. When indicating the region

		information in response to a BM BR header, MR-BS shall include the same TID in the BM Allocation IE.
DIUC	4bits	Indicates the DIUC used by RS to transmit the broadcast message.
BR	10bits	Requested amount of bandwidth in units of slot
CID	16bits	Basic CID (or tunnel CID) of the RS
HCS	8bits	Header check sequence
}		

[Change the last 3 rows of table 383 in page 152 as follows]

0D	BM Allocation IE
~~0CD~~ 0E	Reserved
0F	UL_interference_and_noise_level_IE

[Insert new subclause 8.4.5.3.29 after section 8.4.5.3.28 in page 154]

8.4.5.3.29 BM Allocation IE

This IE is used for specifying the allocation information for the broadcast message over access link as a response of BM BR header. The format for BM Allocation IE is shown in Table C.

Table C – BM Allocation IE format

Syntax	Size	Notes
BM_Allocation IE(){		
Extended DIUC	4bits	Shall be set to 0D for indicating BM Allocation IE
Length	4bits	
CID	16bits	Basic CID (or tunnel CID) of the RS
TID	4bits	Transaction ID
Frame number	4bits	LSB of frame number to transmit the broadcast message
OFDMA symbol offset	8bits	
Subchannel offset	6bits	
No. OFDMA symbols	7bits	
No. subchannels	6bits	
Boosting	3bits	000: Normal (not boosted); 001: +bdB;

		010: -6dB; 011: +9dB; 100: +3dB; 101: -3dB; 110: -9dB; 111: -12dB
Repetition coding indication	2bits	0b00: No repetition coding 0b01: Repetition coding of 2 used 0b10: Repetition coding of 4 used 0b11: Repetition coding of 6 used
}		