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| Project | **IEEE 802.16 Broadband Wireless Access Working Group <**http://ieee802.org/16**>** |
| Title | **MR_Code-REP header** |
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| Re: | IEEE 802.16j-07/019: "Call for Technical Comments Regarding IEEE Project 802.16j" |
| Abstract | This contribution proposes a MR_Code-REP header |
| Purpose | Text proposal for 802.16j Baseline Document. |
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# MR_Code-REP header

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# Introduction

MS CDMA BR ranging is expected to be used frequently in MR system. However, it takes 15~25 bytes in the relay path to send one MR Code-REP message. In order to conserve the bandwidth in the relay path, we propose an alternative option, 6-byte MR_Code-REP header used by RS to request the MR-BS to generate dummy CDMA Allocation IEs and allocated corresponding UL bandwidth.

In order to facilitate the incorporation of this proposal into IEEE 802.16j standard, specific changes to the baseline working document IEEE 802.16j-06/026r4 are listed below.

# Text Proposal

6.3.2.1.2.2.2 Extended MAC Signaling Header Type II

*[Change the following table in line 24 of page 9 as indicated]*

Table 19a Extended Type field encodings for Extended MAC signaling header type II

| Extended Type field | MAC header Type | Reference figure | Reference table |
|---|---|---|---|
| 5 | MR_Code-REP header | Figure xxx | Table xxx |
| 64-7 | Reserved | | |

*[Insert the following subclause 6.3.2.1.2.2.2.5 in page 14:]*

6.3.2.1.2.2.2.5 MR_Code-REP header

MR_Code-REP header, illustrated in Table xxx, is used by a non-transparent RS in a system with centralized bandwidth allocation to request the MR-BS to generate incomplete CDMA Allocation IEs in the UL-MAP that it assigns to the RS to broadcast on the access link. An incomplete CDMA_Allocation_IE contains zeros in the fields for Frame Number Index, Ranging Code, Ranging Symbol, and Ranging Subchannel.

Table xxx Description of fields in MR_Code-REP header

| Name | Length | Description |
|---|---|---|
| HT | 1 bit | = 1 |
| EC | 1 bit | = 1 |
| Type | 1 bit | = 1 |
| Extended Type | 3 bits | = 5 |
| Number of Received BR CDMA Codes | 6 bits | Number of CDMA bandwidth request ranging code |
| Reserved | 12 bits | |
| Basic CID | 16 bits | RS basic CID |
| HCS | 8 bits | Header Check Sequence (same usage as HCS entry in Table 5). |