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| Title | **Clarification on Relay Mode Indication (RMI) Bit in Relay MAC Header** |
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| Re: | Response to the call for technical comments regarding IEEE Project 802.16j (i.e., IEEE 802.16j-07/019). |
| Abstract | This contribution proposes a clarification to further avoid confusion between relay mode indication (RMI) bit and mesh subheader bit. |
| Purpose | To adopt the clarification proposed herein into IEEE 802.16j. |
| Notice | |
| Release | |
| Patent Policy | |

# Clarification on Relay Mode Indication (RMI) Bit in Relay MAC Header

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## 1. Introduction

The 3rd bit in the relay MAC header [1] is used to indicate whether the MAC header follows the generic MAC header format or relay MAC header format. In the legacy 802.16e standard [2], however, this bit is used to indicate the presence or absence of mesh subheader.

To avoid any potential confusion, we propose to further clarify the usage of that bit in the baseline document.

## 2. Proposed Text Changes

**6. MAC Common Part Sublayer**

*6.3.2.1.1 Generic MAC header*

*[Change Table 7 as follows]*

**Table 7—Type encodings**

| Type bit | Value |
|---|---|
| #5 most significant bit (MSB) | Mesh subheader/*Relay mode indication*<br>*When the value of MAC version TLV is less than 6, this is a mesh subheader bit*<br>*1 = mesh subheader is present,*<br>*0 = mesh subheader is absent*<br><br>*When the value of MAC version TLV is 6, this is a relay mode indication bit*<br>*1 = the MAC header shall be interpreted per the relay MAC header format defined in subclause 6.3.2.1.1.1.*<br>*0 = generic MAC header is used.* |
| #4 | ARQ feedback payload<br>1 = present, 0 = absent |
| #3 | Extended type |

|  | Indicates whether the present packing subheader (PSH) or fragmentation subheader (FSH) is extended for non-ARQ-enabled connections<br>1 = Extended<br>0 = Not extended<br>For ARQ-enabled connections, this bit shall be set to 1. |
|---|---|
| #2 | Fragmentation subheader (FSH)<br>1 = present, 0 = absent |
| #1 | Packing subheader (PSH)<br>1 = present, 0 = absent |
| #0  least significant bit (LSB) | DL: Fast-feedback allocation subheader (FFSH)<br>UL: Grant management subheader (GMSH)<br>1 = present, 0 = absent |

## 3. Reference

[1] "Air Interface for Fixed and Mobile Broadband Wireless Access Systems - Multihop Relay Specification", IEEE 802.16j-06/026r4, June 2007

[2] "IEEE Standard for Local and Metropolitan Area Networks − Part 16: Air Interface for Fixed Broadband Wireless Access Systems, Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands," IEEE Computer Society and the IEEE Microwave Theory and Techniques Society, February 2006.