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Re:	Call for Technical Comments Regarding IEEE 802.16j <http://www.ieee802.org/16/relay/docs/80216j-07_013.pdf>
Abstract	Provide a method for embedding QoS control data in R-MAC Header
Purpose	To amend the text of baseline document for Section 6.3.2
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QoS Control Scheme for Data Forwarding in 802.16j

1. Purpose

In this contribution, we propose utilization of source QoS control based forwarding scheme. To support this type of QoS control we suggest adoption of the following processes:

1. **Use 3 bits in the "reserved field" of the relay MAC header defined in 07/198r8 as a "priority field" to indicate the priority of the associated MPDU.**
2. **This 3-bit "priority field" is used for RS to prioritize the data traffic along the relay path between BS and access RS**
3. **This approach is applicable to distributed scheduling relay system**

2. Introduction

In 802.16-2005, to support scheduling service for various data traffic, it defined traffic priority (11.13.5, IEEE std 802.16e-2005) for each service type (except UGS service). This traffic priority (0..7) is used by scheduler to prioritize different data steams in the same class. For example, in VoIP service, there are E911 call and normal residential phone call from the same access. Based on the assigned priority, the scheduler will allow E911 stream access first in the queue. To utilize this approach in MR relay network, in where there is no track of per-flow QoS parameters at each RS, for example, tunnel and station ID data forwarding over relay link, we suggest add 3-bit priority in the relay MAC header defined in 07/198r8 to help RS to prioritize the traffic.

Let us use tunnel as an example to show how this approach works. Each access RS can create number of tunnels (e.g., one for each service type), by following normal procedure defined in baseline doc. When access RS receives the individual data flows from each MS, it will aggregate the same priority (and the same class) packets into one relay MAC PDU, and mapping the priority into 3-bit priority in the relay MAC header, and put these relay MAC PDUs into correspondent tunnel. When this relay MAC PDU is forwarded upstream along the tunnel, every intermediate RS would learn the service type from the tunnel CID, and the priority info from each relay MAC PDU header. Then the scheduler on the RS can schedule the data packets from their class and the priority. Saying, it would allow E911 packet to be forwarded in the queue first. In this way, the scheduler of RS can effectively process the required QoS by classifying, prioritizing and aggregating the data packet .

Figure 1 below provides an example of where the 3-bit "priority field" could be in the relay MAC header specified in 07/198r8.

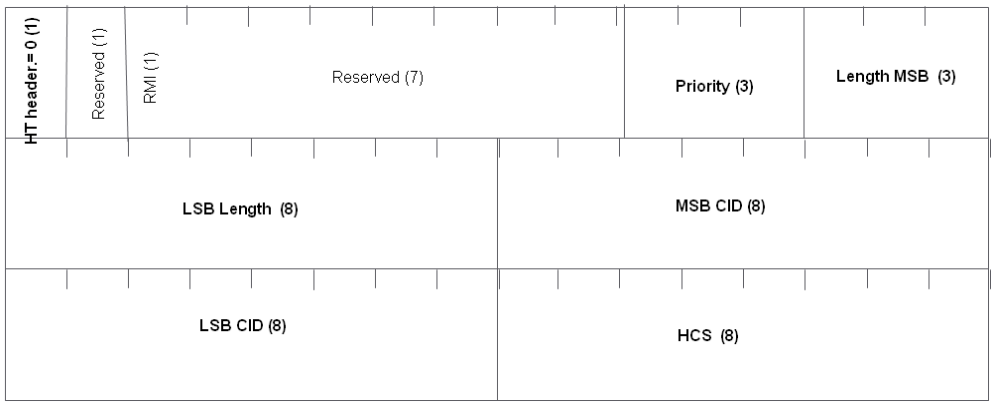

Figure 1. Relay MAC header format with proposed 3-bit "priority field"

3. Proposed Text Change

[Insert the following subclause after the end of Section 6.3.2.1]

6.3.2.1.1.1 Relay MAC PDU header format

3-bit "priority field" is used in the relay MAC header to indicate the priority of the associated MPDU. The location of "priority field" in relay MAC header is to be determined.