

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	Signaling to assign the resource in the UL access zone	
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Re:	IEEE802.16-07/043"IEEE 802.16 Working Group Letter Ballot #28: Announcement"	
Abstract	This contribution proposes a signaling method for the resource request of access zone.	
Purpose	Discuss and adopt proposed text by TG16j	
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# Signaling to assign the resource in the UL access zone

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## 1. Introduction

This contribution proposes a signaling method of assigning the resource in the uplink access zone in response to the resource request of uplink access zone from RS, i.e., ‘RS UL size request header’ in subclause 6.3.2.1.2.2.2.6 [1]. ‘RS UL size request header’ proposed by [2] has been accepted in July meeting. However, signaling to assign the resource in response to ‘RS UL size request header’ has not been defined yet. To complete the aforementioned ‘RS UL size request header’, the signaling method of assigning the resource in the UL access zone is proposed in this contribution.

## 2. Proposed solution

To complete the aforementioned operation, i.e., ‘RS UL size request header’, signaling method of resource allocation, i.e., RS UL access zone IE, is proposed.

## 3. Proposed text change

*[Insert new subclause 8.4.5.9.1.3:]*

### 8.4.5.9.1.3 RS UL access zone IE (RS UL-AZONE IE)

In the distributed scheduling, MR-BS may transmit RS UL access zone IE to its subordinate RSs upon receiving RS UL size request header (see 6.3.2.1.2.2.2.6) from one of the subordinate RSs. RS UL access zone IE provides the allocation for a region of the UL access zone. The RS whose RS CID appears in RS UL access zone IE shall allocate that region to its subordinate MSs, whereas MR-BS and other RSs that receive the RS UL access zone IE shall not allocate that region for their subordinate MSs.

Table xxx – RS UL-access zone IE format

<u>Name</u>	<u>Length</u>	<u>Description</u>
<u>RS UL-AZONE IE {</u>		
<u>Type</u>	<u>5bits</u>	<u>RS UL-AZONE IE=0x02</u>
<u>Length</u>	<u>4bits</u>	<u>Variable</u>
<u>CID</u>	<u>16bits</u>	<u>RS basic CID</u>
<u>Indicator</u>	<u>1bit</u>	<u>1: indicates allocation of resource</u> <u>0: indicates release of resource</u> <u>Notes: allocation/release is effective in</u> <u>the next frame</u>
<u>OFDMA symbol offset</u>	<u>8bits</u>	
<u>No. OFDMA symbols</u>	<u>7bits</u>	
<u>Subchannel Offset</u>	<u>7bits</u>	
<u>No. of subchannels</u>	<u>7bits</u>	

}		
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**Indicator:** RS UL-access zone IE with indicator field=1 allocates a region of an UL access zone to the RS whose CID appears in the RS UL-access zone IE. In this case, the RS shall allocate that resource to its subordinate MSs. MR-BS and other RSs that have received RS UL-access zone IE shall not allocate that same resource to its subordinate MSs. RS UL-access zone IE with indicator field=0 releases the allocated region of an UL access zone from the RS whose CID appears in the RS UL-access zone IE. In this case, MR-BS and its subordinate RSs may allocate the released resource to their MSs autonomously.

**[Change Table 496c in page 192 as follows:]**

Table 496c – R-link specific IE types

<u>Type</u> (hexadecimal)	<u>Usage</u>
<u>00</u>	<u>RS UL DCH assignment IE</u>
<u>01</u>	<u>RS BW-ALLOC IE</u>
<u>02</u>	<u>RS UL-AZONE IE</u>
<u>03-1F</u>	<u>Reserved</u>

**Modify the first sentence in subclause 6.3.2.1.2.2.2.6 as follows::**

Under distributed scheduling, an RS may request size for its region of the access zone from the superordinate RS/MR-BS by sending the RS UL Size Request Header

**Insert the following text at the end of subclause 6.3.2.1.2.2.2.6::**

The MR-BS may allocate a region of the uplink access zone in the RS UL access zone IE (Section 8.4.5.9.1.3).

**Insert new subclause 6.3.6.7.1.2.3:**

**6.3.6.7.1.2.3 UL access region request and allocation in distributed mode with non-transparent RS**

A non-transparent RS may request a dedicated access uplink region for its access uplink traffic by sending an RS UL Size Request header to its MR-BS superordinate station (see 6.3.2.1.2.2.2.6). Upon assigning If the RS is assigned a dedicated uplink access region, the its MR-BS superordinate station shall notify the RS by inserting an RS UL access zone IE in the R-UL-MAP (see 8.4.5.9.1.3). The MR-BS superordinate station may allocate create and notify to the RS a dedicated access uplink region of this allocation without receiving a request from the RS.

**Reference:**

[1] IEEE P802.16j/D1 August 2007

[2] IEEE C802.16j-07/307r1, “UL Access Region Size Request for Semi-Distributed RS”.