

<b>Project</b>	<b>IEEE 802.16 Broadband Wireless Access Working Group</b>
<b>Title</b>	<b>Comments on UL Access Zone TLV for Distributed RS</b>
<b>Date:</b>	<b>2008-01-14</b>
Source(s)	<p>Eugene Visotsky  <a href="mailto:eugenev@motorola.com">eugenev@motorola.com</a>  Motorola Labs  1301 E. Algonquin Road,  Schaumburg, IL 60196 USA</p> <p>Shyamal Ramachandran  <a href="mailto:shyamal.ramachandran@motorola.com">shyamal.ramachandran@motorola.com</a>  Motorola Inc.  1064 Greenwood Blvd. Suite 400  Lake Mary, FL 32746 USA</p> <p>Roger Peterson  <a href="mailto:R.Peterson@motorola.com">R.Peterson@motorola.com</a>  Motorola Labs  1301 E. Algonquin Road,  Schaumburg, IL 60196 USA</p>
Re:	This document is in response to IEEE 802.16 Working Group Letter Ballot #28a, as specified in IEEE 802.16-07/059. This document proposes text regarding signaling to enable UL access zone allocation for insertion into IEEE P802.16j/D2.
Abstract	This contribution proposes text regarding signaling to enable UL access zone allocation for distributed RS.
Purpose	Text is included for insertion in the IEEE 802.16j amendment to the standard.
Notice	<i>This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups.</i> It represents only the views of the participants listed in the "Source(s)" field above. It is offered as a basis for discussion. It is not binding on the contributor(s), who reserve(s) the right to add, amend or withdraw material contained herein.
Release	The contributor grants a free, irrevocable license to the IEEE to incorporate material contained in this contribution, and any modifications thereof, in the creation of an IEEE Standards publication; to copyright in the IEEE's name any IEEE Standards publication even though it may include portions of this contribution; and at the IEEE's sole discretion to permit others to reproduce in whole or in part the resulting IEEE Standards publication. The contributor also acknowledges and accepts that this contribution may be made public by IEEE 802.16.
Patent Policy and Procedures	<p>The contributor is familiar with the IEEE-SA Patent Policy and Procedures:  <a href="http://standards.ieee.org/guides/bylaws/sect6-7.html#6">http://standards.ieee.org/guides/bylaws/sect6-7.html#6</a> and  <a href="http://standards.ieee.org/guides/opman/sect6.html#6.3">http://standards.ieee.org/guides/opman/sect6.html#6.3</a>.</p> <p>Further information is located at <a href="http://standards.ieee.org/board/pat/pat-material.html">http://standards.ieee.org/board/pat/pat-material.html</a> and  <a href="http://standards.ieee.org/board/pat">http://standards.ieee.org/board/pat</a>.</p>

# UL Access Zone TLV for Distributed RS

*E. Visotsky S. Ramachandran R. Peterson*

*Motorola*

## Introduction

In the current 802.16j draft, no means of initially configuring UL access region of a distributed RS at the time of RS network entry is provided. As a result, an 802.16j relay network deployment may not be configured with a fractional frequency reuse plan on the UL. Note that the IEEE802.16e-2005 standard does provide “UL allocated subchannels bitmap” TLV in the UCD, by which an MS is signaled the UL subchannels available in its sector, thereby allowing flexibility in frequency plan implementation on the UL. In this contribution it is proposed that such a TLV be also included in the RCD message (Section 6.3.2.3.65) for configuring the UL access region of a distributed RS. This TLV may be sent to an RS at the time of its network entry as part of the RS initial configuration.

## Proposed text changes

### *Modify subclause 6.3.2.3.65 as follows:*

The RCD message may include the following TLVs for multiple frame configuration:

**DL subframe configuration (see 11.25.6)**

**UL subframe configuration (see 11.25.6)**

The RCD message may include the following TLV for UL access link configuration:

**Access link UL allocated subchannels bitmap (see 11.25.7)**

### *Insert new subclause 11.25.7:*

#### **11.25.7 RS UL access link configuration**

This field is used by the MR-BS to configure the access UL of the RS.

<u>Name</u>	<u>Type</u>	<u>Length</u>	<u>Value</u>	<u>Scope</u>
<u>Access link UL allocated subchannels bitmap</u>	<u>TBA</u>	<u>9</u>	<u>This is a bitmap describing the physical subchannels allocated to the RS for its UL access traffic, when using the uplink PUSC permutation. The LSB of the first byte shall correspond to subchannel 0. For any bit that is not set, the corresponding subchannel shall not be used by the RS on that segment. When this TLV is not present, RS is allocated all subchannels.</u>	<u>RCD</u>