

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Fix for RRM primitive	
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Re:	Contribution on comments to IEEE 802.16g-05/008r1	
Abstract	In this contribution, we propose to fix the RRM primitives to make the resource allocation more accurately	
Purpose	Adoption	
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Fix for RRM primitive

1. Introduction

In the current baseline of IEEE802.16g, the BS may use **Spare capacity report primitive** to provide spare capacity information to the RRC, as requested by the RRC within the Spare Capacity Request Primitive. On the other hand, the RRC also may send **Neighbor-BS Radio Resource Status Update primitive** to Serving BS during Handover. In the primitives, the “Available Radio Resource” indicator (percentage of reported average available subchannels and symbols resources per frame) is included. However, this indicator is not sufficient to provide the required information for making service flow admission control. A new parameter, “**Radio Resource Fluctuation**” is introduced in this contribution to provide accurate loading information based on traffic activity and pattern.

2. Proposed Text Changes

[fix section 14.5.12.1.1.2 as follow]

14.5.12.1.1.2 Spare capacity report primitive

The BS may use this primitive to provide spare capacity information to the RRC, as requested by the RRC within the Spare Capacity Request Primitive.

RRM Type

Indication of RRM type: Spare Capacity Report

Sender NCMS Node ID

NCMS Node or BS unique identifier

Target NCMS Node ID

NCMS Node or BS unique identifier

Spare Capacity Report Type

Type of report profile = 1

Available Radio Resource

Percentage of reported average available subchannels and symbols resources per frame, as defined in section 14.5.13.3.

Radio Resource Fluctuation

Radio Resource Fluctuation is used to indicate the degree of fluctuation in DL and UL channel data traffic throughputs. When Radio Resource Fluctuation is set to 0, it implies that the DL and UL data traffic is constant in data throughput. Hence, there is no fluctuation in Available Radio Resource. When Radio Resource Fluctuation is set to maximum value 255, the data traffic is very volatile in nature which makes the Available Radio Resource unpredictable. The Radio Resource Fluctuation for all traffic models should be in the range of 0 to 255.

[fix section 14.5.12.1.1.5 as follow]

14.5.12.1.1.5 RRM Neighbor-BS Radio Resource Status Update primitive

This primitive can be used by RRC to inform a Serving BS about the list of Neighbor BS's which are potential HO Target Base Stations for any MS's being served by the SBS, including an information about their radio resource status

RRM Type

Indication of RRM type: Neighbor-BS Radio Resource Status Update

Sender NCMS Node ID

NCMS Node or BS unique identifier

Target NCMS Node ID

BS unique identifier

N NEIGHBORS

Number of neighbor BS's

For (j=0; j<N NEIGHBORS; j++) {

BS Identity

Unique identifier of BS

Available Radio Resource

Percentage of reported average available subchannels and symbols resources per frame, as defined in section 14.5.13.3

Radio Resource Fluctuation

Radio Resource Fluctuation is used to indicate the degree of fluctuation in DL and UL channel data traffic throughputs. When Radio Resource Fluctuation is set to 0, it implies that the DL and UL data traffic is constant in data throughput. Hence, there is no fluctuation in Available Radio Resource. When Radio Resource Fluctuation is set to maximum value 255, the data traffic is very volatile in nature which makes the Available Radio Resource unpredictable. The Radio Resource Fluctuation for all traffic models should be in the range of 0 to 255.

DCD Configuration Change Count

This represents the Neighbor BS current Downlink Channel Descriptor (DCD) configuration change count

UCD Configuration Change Count

This represents the Neighbor BS current Uplink Channel Descriptor (UCD) configuration change count