

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Zone-based Multicast Broadcast Service (MBS)	
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Re:	[Cite the specific document number of the appropriate Call for Contributions, the ballot number, etc. Contributions that are not responsive to this section of the template, may be refused or assigned a low priority for review.]	
Abstract	Typical multicast and broadcast services (MBS) system would provide services in a zone-based manner. However, transmission at zone-edge cells experience performance degradation for reception due to the interference from neighboring zones with different contents. We propose the methods to alleviate the problem.	
Purpose	[Description of what <i>specific</i> action is requested of the 802.16 Working Group or subgroup.]	
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Zone-based Multicast Broadcast Service (MBS)

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Suggested ToC Topic for IEEE 802.16m SDD: Enhancements on Multicast and Broadcast Services (MBS)

Title: Zone-based MBS

Description: Typically, multicast and broadcast services (MBS) would be provided in a zone-based manner. Figure 1 is a diagram of an exemplary zone structure for MBS.

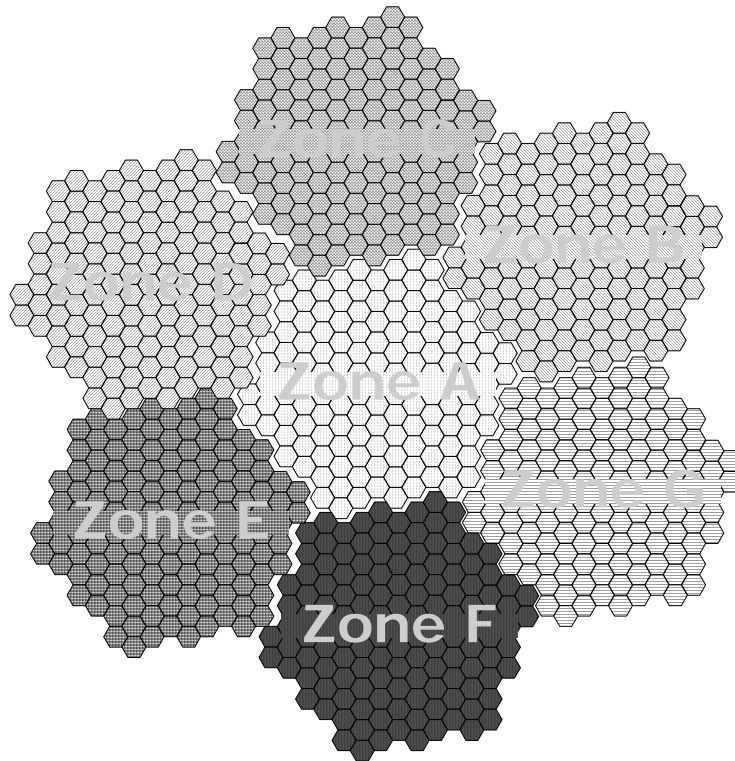


Figure 1: Exemplary Zone Structure for MBS

In a zone-based MBS, independent and different BCMCS flows are serviced for each zone, where each zone consists of multiple base stations covering a certain area. The base stations that belong to the same zone will transmit the same broadcast contents. Therefore, mobile stations will try to combine the packets from multiple base stations that belong to the same zone to obtain diversity gain.

The problem in a zone-based MBS is that certain base stations have channel environments that are quite different from other base stations.

Redundant transmission in time and/or frequency domains is proposed to alleviate the problem stated above. Figure 2 shows exemplary redundant transmission in time domain.

Related Area(s) in SRD: Section 6.7: Enhanced multicast broadcast service

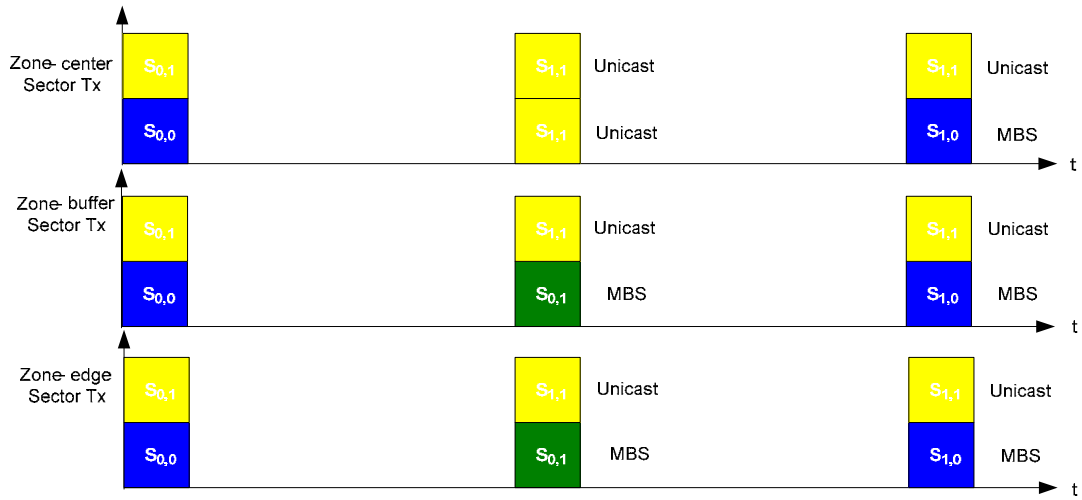


Figure 2: Redundant Transmission in Time Domain for Zone-based MBS