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Source(s)	[Rui Li] [Feng Tian] [Dongxin Lu] [zte] [ZTE Plaza , Keji Road South , Hi-tech Industrial Park , Nanshan District , Shenzhen , P.R.China , 518057] Voice: [86-0755-26772016] Fax: [86-0755-26772004] [mailto:li.rui2@zte.com.cn]
Re:	802.16e/D5
Abstract	This document contains new Group TEK management for Multicast and Broadcast Service
Purpose	Adopt
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Group TEK management for Multicast and Broadcast Service in IEEE 802.16e

Rui Li

Feng tian

Dongxin lu

1. Problem Statements

To provide seamless multicast and broadcast service over multiple BS, a multi-BS-MBS connection shall use the same CID, and transport the same data in a synchronized manner across the group of BS located in MBS Zone in Draft 802.16e/D5a. All transmitted data in multi-BS-MBS connection should be encrypted with the key that is derived from MGTEK and MAK. So the MGTEK should be synchronously managed across the group of BS in MBS Zone in order to provide the same encrypted data of MBS to all MSSs registered to the specific multi-BS-MBS connection. But there is not description how the MGTEK is managed synchronously in current specification.

2. Proposal

A new MGTEK management is proposed to realize that all BSs in MBS Zone synchronously manage MGTEK. The thought is that a centralized controller in MBS Zone is set to manage MGTEK. The centralized controller is used to manage MGTEK, such as the establishment of MGTEK, the distribution of MGTEK, the update of MGTEK and synchronization of MGTEK between all BSs. The figure-1 illustrates the model of MBS in MBS Zone.
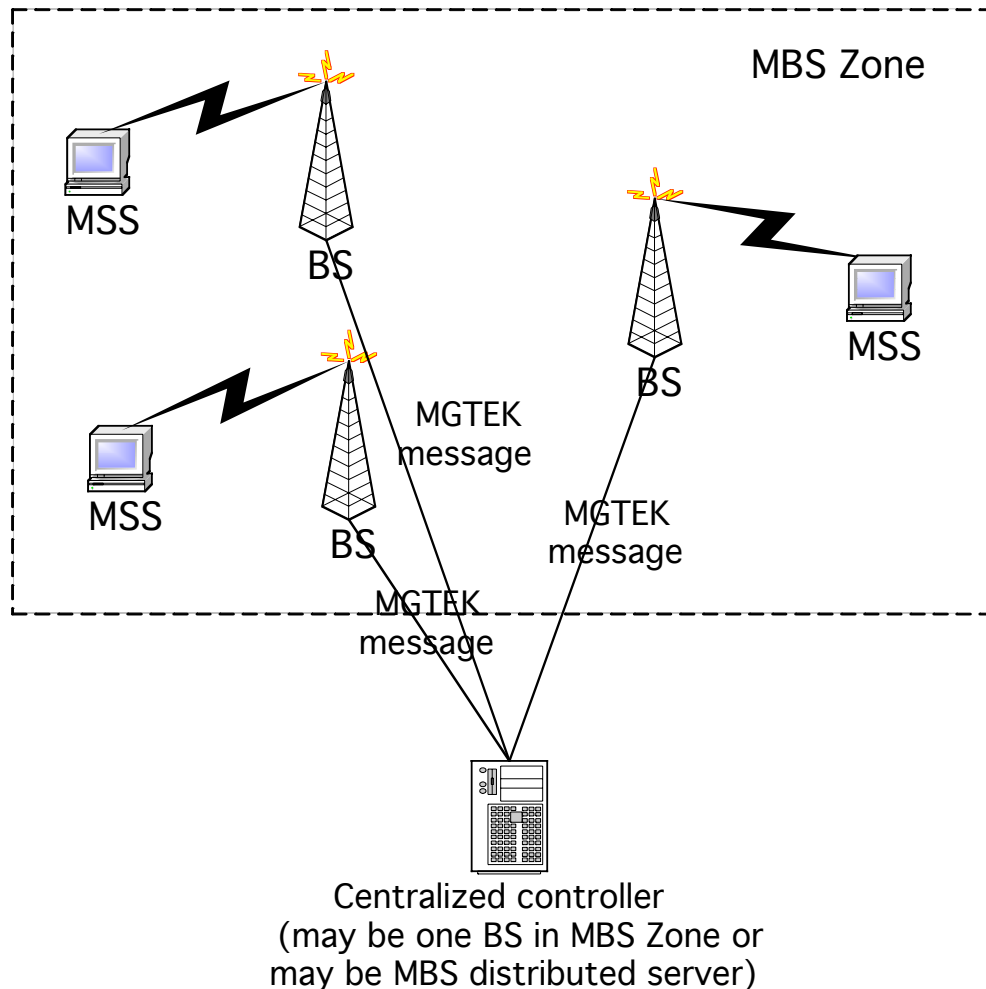

Figure 1 the model of MBS in MBS Zone

[add the following as show]

3. Proposed Text adds

7.8.1.2.2 MGTEK establishment

To support seamless multicast and broadcast service over multiple BS, the MGTEK management across a group of BS in MBS Zone should be synchronized. ~~In this case, each BS should manage the same MGTEK, using the same management mechanism (establishment, distribution and update) at the same time. To realize the purpose of MGTEK synchronous management, a centralized controller is set to manage MGTEK, such as the establishment of MGTEK, the distribution of MGTEK, the update of MGTEK and synchronization of MGTEK among all BSs in MBS Zone. There are many methods to set the centralized controller. The centralized controller may be one BS in MBS Zone. It also may be the MBS distribution server. But there is only one centralized controller to manage GTEK between multiple BS in MBS Zone.~~ The manner in which serving BS acquires MGTEK material information from the centralized controller is outside the scope of 802.16e specification.