

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	Clarification on MRS handover	
Date Submitted	2007-09-12	
Source(s)	Yousuf Saifullah, Shashikant Maheshwari, Haihong Zheng, Adrian Boariu, Aik Chindapol Nokia Siemens Networks 6000 Connection Drive, Irving, TX 75019, USA	Voice: 972-894-5000 Email: yousuf.saifullah@nsn.com
Re:	IEEE 802.16j-07/034: "WG LB #28"	
Abstract	This proposal clarifies the MRS handover using distributed security model.	
Purpose	Discuss and adopt proposed text.	
Notice	<i>This document does not represent the agreed views of the IEEE 802.16 Working Group or any of its subgroups. 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.</i>	
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	The contributor is familiar with the IEEE-SA Patent Policy and Procedures: < http://standards.ieee.org/guides/bylaws/sect6-7.html#6 > and < http://standards.ieee.org/guides/opman/sect6.html#6.3 >. Further information is located at < http://standards.ieee.org/board/pat/pat-material.html > and < http://standards.ieee.org/board/pat >.	

Clarification on MRS Handover

1. Introduction

MRS handover was written using centralized security model. The baseline has also accepted distributed security model. This contribution clarifies how the MRS handover works in both cases.

2. Specific Text Change

Change subclause 6.3.22.4.2.2:

6.3.22.4.2.2 Network entry/reentry

During network entry/re-entry, the MRS informs the MR-BS that it is an MRS. The serving MR-BS may exchange backbone messages with the target MR-BS to pass the MAC addresses, SFIDs and CIDs of all the MSs attached to the MRS. The details of the backbone messages are beyond the scope of this specification. In the non-tunneling case, the target MR-BS may allocate new CIDs to MSs during ranging procedure with the MRS. If new CIDs are assigned, then MR-BS shall send old and new CID pairs to the MRS in RNG-RSP. The MRS creates mapping between old and new CID. It replaces old CID with the new CID in the UL MPDUs. Similarly, it replaces new CID with the old CID in the DL MPDUs.

If the centralized security control (section 7.1.6) is used, the MR-BS calculates CMAC using old CID. If the distributed security control (section 7.1.7) is used, the MRS calculates CMAC using old CID.

In the tunneling case, the target MR-BS may allocate new CIDs to tunnels during the ranging procedure and then send old and new tunnel CID pairs to the MRS in RNG-RSP. After getting the relationship of old and new tunnels, MRS can route MS MAC PDU according to the combination of Tunnel CID and MS CID.

Change subclause 6.3.22.4.3:

6.3.22.4.3 ~~Mobile~~ RS handover with preamble change (Inter MR-BS)

This subclause describes the MRS handover (Inter MR-BS), which hands over an MRS as well as all the MS attached to it, with a detection of a preamble change. Both of the MR-BS and the MRS ~~would~~ maintains a list of MSs which are served through an MRS. An MRS HO begins with a decision for an MRS to handover itself and to make MSs to handover from a serving MR-BS to a target MR-BS. The decision may originate either at the MRS or the serving MR-BS.