

| | |
|----------------|--|
| Project | IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 > |
| Title | Path management in 16m relay |
| Date Submitted | 2009-02-27 |
| Source(s) | Mingxia Xu, Hyunjeong Kang, hyunjeong.kang@samsung.com Rakesh Taori, Jungje Son, Youngbin Chang Samsung Electronics |
| Re: | Change request to the 802.16m SDD (section 15) |
| Abstract | This contribution proposes a high level description on the relaying feature to support path management. |
| Purpose | For review and discussion in 802.16m |
| 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 >. |

Path management in 16m relay

1 Introduction

When relaying is applied to IEEE 802.16m system, a relay feature to support path management should be considered. Path management can follow the basic mechanisms defined in IEEE 802.16j [1], and adapt to the new features provided by IEEE 802.16m.

This document proposes a high level description on the relaying feature to support path management. The suggestions to the SDD text are summarized as follows:

- All the path management procedures are controlled by ABS centrally. ABS makes centralized calculation for the path between the ABS and an access ARS.
- As connection management and path management use the same message formats for establishment, removal and update, procedures may be simplified by implementing the two functions with combined signaling.

2 Text Proposal

-----Start of the Text-----

15.4 Data and Control Functions

[Insert the texts in subclause 15.4 as follows:]

15.4.x Relay path management

The ABS shall control the path management centrally including path establishment, removal and update by explicit signaling. Path establishment can be implemented during the network entry of an ARS, and the path establishment procedure can be combined with the procedure for establishing a tunnel connection of the ARS if tunneling is allowed. The explicit path information and a uniquely assigned path ID can be included in the signaling.

When a connection for an AMS is established, the connection to path binding information can be updated along the path with the establishment of the connection. The procedure of a connection to path binding update can be combined in the procedure to establish AMS's connection.

-----End of the Text-----

3 Reference

- [1] IEEE P802.16j/D9, “Draft Amendment to IEEE Standard for Local and metropolitan area networks: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Multihop Relay Specification,” Feb. 2009.