Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>	
Title	**Localized MS connection management**	
Date Submitted	**2007-08-22**	
Source(s)	Hang Zhang, Peiying Zhu, Mo-Han Fong, Wen Tong, David Steer, Gamini Senarath, G.Q. Wang, Derek Yu, Israfil Bahceci, Robert Sun and Mark Naden Nortel 3500 Carling Avenue Ottawa, Ontario K2H 8E9	Voice: +613-763-1315 E-mail: wentong@nortel.com Voice: +613-765-8983 E-mail: pyzhu@nortel.com
Re:	IEEE P802.16j/D1: IEEE 802.16j working group letter ballot #28	
Abstract		
Purpose	To incorporate the proposed text into the P802.16j/D1 Baseline Document	
Notice	*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.	
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>.	

Localized MS connection management

Hang Zhang, Peiying Zhu, Mo-Han Fong, Wen Tong, David Steer, Gamini Senarath, G.Q. Wang, Derek Yu, Israfil Bahceci, Robert Sun and Mark Naden
Nortel

1. Introduction

Based on current baseline document, the connections of a MS can be managed either by MR-BS (end-to-end connection management) or by the access RS of the MS (localized connection management). For localized CID management, the connection between MR-BS and the RS is established as for a MS. The text regarding localized MS connection management currently is missing. In this contribution, the connection management of MS by an access RS is addressed.

2. Proposal

Localized CID management may be implemented in either a fixed RS or a mobile RS. However the main benefits are seen when it is implemented in a mobile RS.

Compared to centralized CID management, localized CID management brings the following benefits:

- With localized CID management, the MS initial ranging procedure can be speeded up since the delay caused by CID assignment by MR-BS and RNG-RSP message relaying
- A MR-BS doesn't need to manage the CID of MSs attached to a mobile RS and leave the CID management to be implemented by an individual RS which simplifies the entire system operation

Connections of MSs served by a RS implementing localized CID management

At MS initial network entry, the CID of management connections of a MS are assigned locally by the RS implementing localized CID management and is informed to the MR-BS so that a MR-BS has the knowledge of the coupling between MAC address of the MS and its local basic/primary CID. The RS can use STA-INFO message to inform MR-BS the locally assigned basic CID and primary CID (referring to contribution "MS message relay by RS performing distributed security")

The CID of a transport connection of a MS is assigned by the RS at the establishment of a service flow of the MS and is informed to MR-BS so that a MR-BS has the knowledge of the coupling between a service flow and local CID assigned by the RS.

3. Proposed text change

[Add the section 6.3.1.3.2 as followings]

++++++++++++ Start text ++

6.3.1.3.2 local connection management for relaying

For a fixed relay station or a mobile relay station, CID can be locally assigned to an attached MS.

The connections between MR-BS and a RS are managed by MR-BS. The connections of MSs attached to a RS with localized MS connection management are managed by the RS and any locally assigned CID by such a RS

shall be informed to the MR-BS.

6.3.1.3. 2.1 Connections of MSs served by a RS with localized MS CID management

At MS initial network entry, the CID of management connections of a MS are assigned locally by the RS implementing localized CID management and is informed to the MR-BS so that a MR-BS has the knowledge of the coupling between MAC address of the MS and its local basic/primary CID. The RS can uses SAT-INFO message or MS_MSG_Relay-REQ message to inform MR-BS the locally assigned basic CID and primary CID

The CID of a transport connection of a MS is assigned by the RS at the establishment of a service flow of the MS and is informed to MR-BS so that a MR-BS has the knowledge of the coupling between a service flow and local CID assigned by the RS. The RS can uses MS_MSG_Relay-REQ message to inform MR-BS the locally assigned transport CID.

++++++++++++++ End text ++