Project	IEEE 802.16 Broadband Wireless Access Working Group http://ieee802.org/16 >					
Title	Connection management of RS with distributed security					
Date Submitted	2007-09-06					
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					
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/ .					

Connection management of RS with distributed security

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

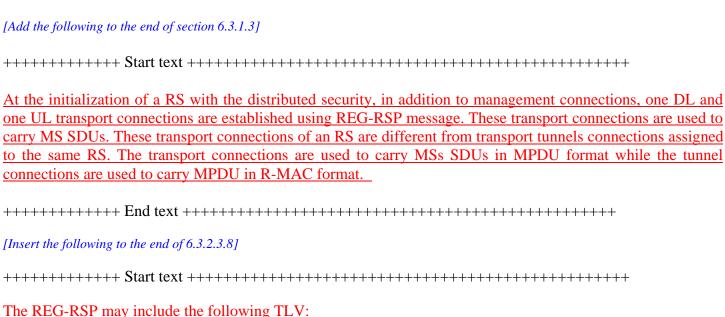
1. Introduction

In current baseline document, both centralized and distributed security modes are described. In the distributed security mode, the security materials of a MS are accessible and kept by the access RS of a MS. Such an access RS implements MS traffic en/decryption and message authentication functions and MS SDUs are visible to access RS. Therefore, in DL, all SDUs to MSs attached to an access RS can be viewed as SDUs targeting to the access RS. In UL, all received MAC SDUs from MSs by an access RS can be viewed as the SDUs originated from this RS. Thus, the RS can be viewed as a MS and one DL transport connection and one UL transport connection can be established to carry those MS SDUs for traffic forwarding purpose. This contribution is addressing the connection management of an access RS with distributed security.

2. Proposal

In current baseline, an access RS can be assigned a basic and a primary connections. For an access RS, one DL and one UL transport connections are also established. These transport connections of an RS are different from transport tunnels connections assigned to the same RS. The transport connections are used to carry MSs SDUs in MPDU format while the tunnel connections are used to carry MPDU in R-MAC format. The main reason of introducing these two transport connections is to utilize the benefit of distributed security (RS is able to process MS traffic at SDUs level) to minimize the encryption overhead. These transport connections of an access RS are established using REG-RSP message at the initialization of an access RS,

3. Proposed text change



Transport connection CID

CIDs of one DL and one UL transport connection assigned by a MR-BS to an access RS with distributed security.

[Insert the following section 11.7.30 Forwarding connection CID]

This TLV is used to indicate the assigned CID of forwarding connections by MR-BS to a RS.

<u>Name</u>	<u>Type</u>	Length	<u>Value</u>	Scope
Transport connection CIDs	TBD	4	DL transport connection CID UL transport connection CID	REG-RSP