Project	**IEEE 802.16 Broadband Wireless Access Working Group** <http://ieee802.org/16>
Title	**Scheduling Service Class for Realtime Non-periodical Application**
Date Submitted	**2008-1-5**
Source(s)	Haihong Zheng, Shashikant Maheshwari **NSN** Haihong.Zheng@nsn.com Zexian Li **Nokia** Zexian.Li@nokia.com YihShen Chen, Kelvin Chou, I-Kang Fu **MediaTek** Yihshen.chen@mediatek.com Robert Novak, Sophie Vrzic, Mo-Han Fong, Dongsheng Yu, Hosein Nikopourdeilami, Kathiravetpillai Sivanesan **Nortel Networks** rnovak@nortel.com
Re:	TGm SDD: 10.10.3 Scheduling Service
Abstract	Propose new scheduling service class to support realtime non-periodical application
Purpose	For discussion and adoption in 802.16m SDD
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>.

Scheduling Service Class for Realtime Non-periodical Application

Haihong Zheng, Shashikant Maheshwari
Nokia Siemens Networks

Zexian Li
Nokia

Kelvin Chou
MediaTek

Robert Novak, Sophie Vrzic, Mo-Han Fong,, Dongsheng Yu, Hosein Nikopourdeilami, Kathiravetpillai Sivanesan
Nortel Networks

I. Introduction

As listed in the SRD requirement, 16m system needs to support realtime non-periodical application such as on-line gaming. The current 16e scheduling classes cannot accommodate such requirement. A new scheduling service class is need for such purpose. A dedicated bandwidth request ranging sequence based solution can fulfill such requirement. A subsection 10.8.2 as proposed below defines such new scheduling service class together with the mechanism to realize it.

II. Text Proposal

========== *Start of Proposed Text* ==========

10.10.3 Scheduling Services

In addition to the scheduling services supported by the legacy system, IEEE 802.16m provides a specific scheduling service - realtime Dedicated Ranging channel based Service (rtDRS) to support realtime non-periodical applications such as on-line gaming. ~~The detailed scheduling mechanism and the service flow parameters are FFS.~~

With rtDRS, a dedicated bandwidth request channel ID (e.g. ranging sequence/location) is allocated to the connection during service flow establishment procedure. The service flow parameters for rtDRS include default QoS parameters. Once receiving the dedicated bandwidth request channel ID, the BS directly grants the resource based on the default QoS parameters defined in the service flow parameters. If additional configuration of the allocation is needed, the

MS sends a piggybacked BW-REQ information together with the data.

========== *End of Proposed Text* ==========