Project	IEEE 802.16 Broadband Wireless Access Working Group <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	Frame Structure	
Date Submitted	2006-11-15	
Source(s)	In the order of signing sheet for Nov, 15	
	2005 on-site harmonization meeting	
	Peiying Zhu, Nortel	pyzhu@noretl.com
	Roger Peterson, Motorola	rpeterson@motorola.com
	Michiharu Nakamura, Fujitsu Labs	Michi@labs.fujits.com
	Chenxi Zhu, Fujitsu Labs of American	Chenxi.zhu@us.fujitsu.com
	Kerstn Johnsson, Intel	Kerstin.johnsson@intel.com
	Ben Manny, Intel	ben.manny@intel.costin
	Garmi Senarath, Nortel	gamini@nortel.com
	Matty Lavanda, WiNetworks	Mattyl@winetworks.com
	Jerry Sydir, Intel	Jerry.sydire@intel.com
	John Lee, Huawei	John_lee@huawei.com
	Kaibin Zhang, Alcatel	Kaibin.zhang@alcatel-sbell.com.cn
	Wei-peng Chen, Fujitsu	Wei-peng.chen@us.fujitsu.com
	Naftali Chayat, Alvarion	Naftali.chayat@alvarion.com
	Adrian Boariu, Nokia	Adrian.boariu@nokia.com
	Youn-Tai Lee, III	lyt@nmi.iii.org.tw

Kanchei Loa, III loa@nmi.iii.org.tw

Jaeweoh Cho, Samsung jaeweon.cho@samsung.com

Rakesh Taori, Samsung rakesh.taori@samsung.com

Soyed Aliahmadradeh, Univeristy of

Waterloo,

ali@cst.uwaterloo.ca

Vahid pourahmadi, University of

Waterloo vpourahm@uwaterloo.ca

Yuefeng.zhou, Fujitsu Labs of Europe yuefeng.zhou@uk.fujitsu.com

Can Can Huang chuang@zteusa.com, ZTE

Hongyun Qu, ZTE qu.hongyun@zte.com.cn

I-Kang Fu, ITRI IKFU@itri.org.tw

Fang-Ching Ren, ITRI Frank\_ren@itri.org.tw

Masato Okada, Fujitsu okuda@jp.fujitsu.com

Jeff Qian, ZTE jqian@zteusa.com

Zax Abrishami, Fujitsu rabrisha@fma.fujitsu.com

David Comstock, Huawei dcomstock@huawei.com

Jeffrey Tao, Mitsubishi tao@merl.com

Koon Hoo Teo, Mitsubishi Teo@merl.com

Shiann-Tsong Shen, III stshen@ce.ncu.edu.tw

Hua-Chiang Yin, III hcyin@nmi.iii.org.tw

Mo-han Fong, Nortel mhfong@nortel.com

Wen Tong, Nortel wentong@nortel.com

G. Q. Wang guoqiang@nortel.com

Re:	A response to a Call for Technical Proposal, http://wirelessman.org/relay/docs/80216j-06_027.pdf	
Abstract	The contribution captures the frame structure proposal harmonized among the listed authors.	
Purpose	Adopt the proposed text proposal	
Notice	This document has been prepared to assist IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) 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 and Procedures	The contributor is familiar with the IEEE 802.16 Patent Policy and Procedures <a href="http://ieee802.org/16/ipr/patents/policy.html">http://ieee802.org/16/ipr/patents/policy.html</a> , including the statement "IEEE standards may include the known use of patent(s), including patent applications, provided the IEEE receives assurance from the patent holder or applicant with respect to patents essential for compliance with both mandatory and optional portions of the standard." Early disclosure to the Working Group of patent information that might be relevant to the standard is essential to reduce the possibility for delays in the development process and increase the likelihood that the draft publication will be approved for publication. Please notify the Chair <a href="mailto:chair@wirelessman.org">mailto:chair@wirelessman.org</a> as early as possible, in written or electronic form, if patented technology (or technology under patent application) might be incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <a href="http://ieee802.org/16/ipr/patents/notices">http://ieee802.org/16/ipr/patents/notices</a> .	

# **Frame Structure**

See author lists in the cover page

### Introduction

There are many frame structure proposals, which response to the Call for Technical Proposal, <a href="http://wirelessman.org/relay/docs/80216j-06\_027.pdf">http://wirelessman.org/relay/docs/80216j-06\_027.pdf</a>. This contribution captures the harmonized frame structure proposal among the listed authors.

The proposed frame structure applies to the non-transparent RS scenario, where a RS transmits the frame-start preamble, FCH and DL/UL MAP as specified in IEEE802.16e-2005 [1].

# Proposed text change

[Replace 8.4.4.7 by the following text on Page 370]

8.4.4.7 Frame structure for RS operation

#### Frame Start Preamble for In-Band Non-Transparent Relay:

If a relay transmits a frame start preamble then that preamble shall be time aligned with its serving MR-BS frame start preamble. Access FCH and MAPs shall follow the preamble.

#### **Relay Zone for In Band Non-Transparent Relay**

The downlink subframe and the uplink subframe may each include one or more relay zones for communications between a parent MR-BS and its child RS or between a parent RS and its child RS. The downlink relay zone shall include a MAP.

#### Mechanism for Configure Relay Zone

The number, size, and location of the relay zones shall be configurable.

### Mechanism for Interference Measurement, Neighbor Discovery for In-Band Non-Transparent Relay

There may be a mechanism for interference measurement and neighbor discovery. (For example, there may be a time synchronous relay amble to support these functions.)

# Access Zone for In-Band Non-Transparent Relay

The downlink subframe and the uplink subframe shall each include one or more 802.16 compliant access zones.