	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	2006-11-17
	Source(s)	Ranga Reddy, US Army
		Ft. Monmouth, NJ 07703
	Re:	Document 06-298 on frame structures.
	Abstract	The contribution provides recommended clarifications to the harmonized frame structure proposal in document 06-298.
	Purpose	Further harmonization of 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 < <u>http://ieee802.org/16/ipr/patents/policy.html&gt;</u> , 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 < <u>mailto:chair@wirelessman.org&gt;</u> as early as possible, in written or electronic form, if

1

#### IEEE C802.16j-06/300

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 <<u>http://ieee802.org/16/ipr/patents/notices></u>.

# **Frame Structure**

See author lists in the cover page

## Introduction

There are many frame structure proposals, which response to the Call for Technical Proposal, http://wirelessman.org/relay/docs/80216j-06\_027.pdf. 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 framestart 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. <u>The organization of relay zones may vary from frame to frame</u>.

#### 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

3

#### 2006-11-175-

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.) <u>These mechanisms may be based on the mechanisms and frame structure being developed in 802.16h.</u>

### 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. <u>However these zones may be void of data in some frames.</u>