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Re:	In response to the LB#28 reply comments	
Abstract	This document provides proposed text for IEEEP802.16j on frame structure requirements and the definition of RSTTG and RSRTG	
Purpose	Discussion and adoption in the P802.16j draft	
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On the issue of frame alignment and gaps for multihop relay transmissions

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1. Introduction

In order to provide support for the one radio RS operation as defined by 802.16j, new gaps (R-TTG and its related RSTTG, R-RTG and its related RSRTG) have been introduced, in order to avoid any data drops due to the Tx/Rx and Rx/Tx switching times.

This contribution provides some information on the specifications of these gaps based on the arrangement of the DL and UL subframe start time arrangement between the MR-BS and RSs.

2. Gaps in the relay frames

Figure 1 depicts MR-BS and RS frame structure with highlights of various gaps for information.

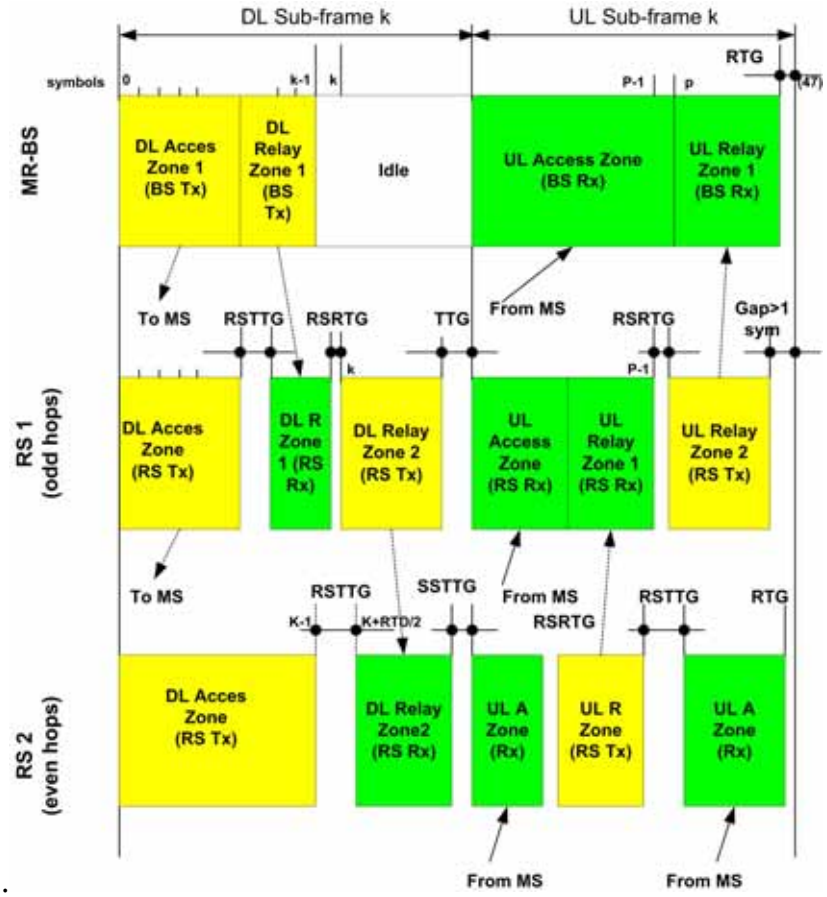

Figure 1 Frame structure (for informaion)

3. Specific text changes

Change the text in sub-clause #8.4.4.2 as follows:

In ~~multihop relay~~ MR systems where relay links and access links on consecutive hops are time separated, ~~relay station~~ RS allowances shall be made for an RSRTG and for an RSTTG. ~~The relay station shall not transmit downlink information to a subordinate station later than RSTTG-RTD/2 before the beginning of a received mode DL relay zone . The relay station shall not receive uplink information from a subordinate station later than RSRTG+RTD/2 before the beginning of a transmit mode UL relay zone.~~ The parameters of RSRTG and RSTTG are capabilities provided by the RS to MR-BS ~~upon request~~ during RS network entry (see 11.8.3.1).

Within the DL or UL sub-frame, a relay station shall transition from transmit mode to receive mode in less time than or equal to the RSTTG and shall transition from receive mode to transmit mode in less time than or equal to the RSRTG.

All DL transmissions shall be symbol aligned with the corresponding symbols at the MR-BS. And all UL transmissions shall be time advanced such that they are symbol aligned at the receiving station with the corresponding symbols at the MR-BS.

Change the text of the Definitions in the chapter 3, as follows:

3.97 RS receive/transmit transition gap (RSRTG): A gap within DL subframe or UL subframe between the last sample of the ~~uplink~~ receiving burst ~~in the UL access zone~~ and the first sample of the ~~subsequent uplink~~ transmitting burst ~~in the UL relay zone~~ at the antenna port of the relay station (RS). This gap allows time for the relay station (RS) to switch from receive to transmit mode

3.98 RS transmit/receive transition gap (RSTTG): A gap within DL subframe or UL subframe between the last sample of the ~~downlink~~ transmitting burst ~~in the DL access zone~~ and the first sample of the ~~subsequent downlink~~ receiving burst ~~in the DL relay zone~~ at the antenna port of the relay station (RS). This gap allows time for the relay station (RS) to switch from transmit to receive mode.