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Re:	A response to a Call for Technical Proposal, http://wirelessman.org/relay/docs/80216j-07_007r2.pdf
Abstract	The contribution proposes frame structure configuration signaling.

Purpose	To incorporate the proposed text into the P802.16j Baseline Document (IEEE 802.16j-06/026r2)
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Frame Structure Configuration Signaling

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1. Introduction

Frame structure configuration consists of RS zone configuration (location and duration) and repetition pattern of RS zone. In this contribution, we propose the signaling support for frame structure configuration.

Basically, two configurations shall be supported:
- dynamic frame structure configuration where the RS zone configuration can be changed on per-frame basis
- Static frame structure configuration where the RS zone configuration remain unchanged until update

2. Proposal

2.1 Dynamic frame structure configuration

During the initial network access, RS can get the location of the DL RS_Zone within the same frame while it is still in MS mode from FCH. Once RS is switched to the relay mode, the R-FCH is used to indicate the DL RS_Zone within the following frame. The UL RS_Zone location is described by a R-MAP IE

2.2 Static frame configuration

The MR-BS or a parent RS can multicast its RS-Zone configuration through a MAC control message (e.g.,

RS_CD) message. The information shall include
- RS_Zone superframe length (in unit of frame)
- Description of DL/UL RS_Zones in each frame within the superframe (location/duration)
- Frame number for this configuration to take effect

The dynamic frame structure signal shall override the static frame structure configuration.

3. Proposed text change

4.2 Proposed text change for R-FCH to enable indication of RS_Zone location in the following frame

[Insert section 8.4.4.7.3]

8.4.4.7.3 R-FCH channel

If a DL RS_Zone contains a R-FCH channel, the R-FCH channel shall be transmitted as FCH described in 8.4.4.2 . The R-FCH contains the RS-Zone Prefix as described in 8.4.4.7.4..

8.4.4.7.4 RS-Zone prefix

The RS-Zone prefix is a data structure transmitted on R-FCH of a DL RS_Zone. The RS-Zone prefix includes information regarding the location of the first RS_Zone in the next frame and the information required for decoding R-MAP.. Table XXX defines the format of RS_Zone prefix.

Syntax	Size(bits)	Notes
RS_Zone_Prefix_format () {		
RS_Zone location	7	The field indicates the OFDM symbol index reference to the beginning of next frame in unit of 2 OFDM symbols
Used_subchannel_bitmap	6	Bit #0: Subchannel group 0 Bit #1: Subchannel group 1 Bit #2: Subchannel group 2 Bit #3: Subchannel group 3 Bit #4: Subchannel group 4 Bit #5: Subchannel group 5
R-MAP length	5	Length in unit of slot
FEC Code type and modulation type	5	0b0000 = QPSK (CTC) 1/2 0b0001 = QPSK (CTC) ¾ 0b0010 = 16-QAM (CTC) 1/2 0b0011 = 16-QAM (CTC) 3/4 0b0100 = 64-QAM (CTC) 1/2 0b0101 = 64-QAM (CTC) 2/3 0b0111 = 64-QAM (CTC) 3/4 0b1000 = 64-QAM (CTC) 5/6 0b1001-0b1111 reserved
Repetition_Coding_Indication	1	0: No repetition coding on R-MAP 1: Repetition coding of 2 used on R-MAP
}		

RS_Zone location

An indicator regarding the location of RS_Zone in the next frame. The first OFDM symbol in each frame is indexed as 0. The RS_Zone location indicates the OFDM symbol index relative to the first OFDM symbol in next frame. The unit is 2 OFDM symbols.

R-MAP length

The length in sub-channels of R-MAP message that immediately follows the RS_Zone prefix.

FEC Code type and modulation type

An indicator indicating the modulation and code rate used for R-MAP message.