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Title	Signaling for inter-system communication over the air		
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Source(s)	Shulan Feng Hisilicon Tech. Co., LTD Bld.17, No.8, Dongbeiwang West Road, Hai-Dian District, Beijing, P. R. China	Voice: Fax: e-mail to :	+86-10-82829151 +86-10-82829075 fengsl@hisilicon.com
	Wu Xuyong Huawei, Huawei Industry Base, Bantian, Longgang, Shenzhen, China 518129	Voice: Fax: email to:	+86-755-28971787 +86-755-28972352 wuxuyong@huawei.com
Re:	IEEE 802.16-08/026 IEEE 802.16 Working Group Letter Ballot Recirc #29c: Announcement		
Abstract	This contribution adds some parameters to support the inter-system communication over the air during the CSI.		
Purpose	Accept.		
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Signaling for inter-system communication over the air

Shulan Feng, Xuyong Wu

HiSilicon, Huawei

Introduction

To support the inter-system communication over the air between BSs with different PHYs, some TLV parameters should be added into table h12 of section 15.3.4.3.

Proposed changes

15.3.4.3 BS Neighborhood Update Request BroadCasting (BS_NURBC)

Table h12—BS_NURBC message TLV encoding

Name	Type(1byte)	Length	Value (Variable length)
NURBC_V4	0	12	Bits 15:0 - RTK Bits 63:16 - BSID Bits 95:64 - BS IP address(IPv4)
NURBC_V6	1	24	Bits 15:0 - RTK Bits 63:16 - BSID Bits 191:64 - BS IP address(IPv6)
NURBC_V4_IN VBSID	2	12	Bits 15:0 - RTK Bits 63:16 - bit-converted BSID Bits 95:64 - BS IP address(IPv4)
NURBC_V6_IN VBSID	3	24	Bits 15:0 - RTK Bits 63:16 - bit-converted BSID Bits 191:64 - BS IP address(IPv6)
<u>NURBC Air</u>	<u>4</u>	<u>15</u>	<u>Bits 15:0 – RTK</u> <u>Bits 63:16 - BSID</u> <u>Bits 87:64 - Channel Center Frequency of BS in 10kHz</u> <u>Bits 103:88 - Channel Width of the requested BS in 10kHz</u> <u>Bits 105:104 – Master subframe ID</u> <u>Bits 111:106 reserved</u> <u>Bits 112 – Alternative Channel Flag.</u> <u>0- no alternative channel</u> <u>1-have alternative channel</u> <u>Bits 113- Alternative Subframe Flag.</u> <u>0 - no alternative subframe</u> <u>1 – have alternative subframe</u> <u>Bits 119-114 reserved</u>

<u>Channel Switch Request</u>	<u>5</u>	<u>21</u>	<u>15:0 – RTK</u> <u>63:16 - BSID of requesting BS</u> <u>111:64- BSID of requested BS</u> <u>135:112 - Channel Center Frequency of the requesting BS in 10kHz</u> <u>151:136 - Channel Width of the requesting BS in 10kHz</u> <u>159:151 - The 8 least-significant bits of MAC Frame number to switch channel.</u> <u>160 - Rolling back indication.</u> <u>0: to switch to one of the alternative channels;</u> <u>1: to switch back to the channel before the last channel switching request</u> <u>167:161 - reserved</u>
<u>Channel Switch Response</u>	<u>6</u>	<u>21</u>	<u>15:0 – RTK</u> <u>63:16 - BSID of requesting BS</u> <u>111:64- BSID of requested BS</u> <u>135:112 - Target Channel Center Frequency of the requested BS in 10kHz</u> <u>151:136 - Target Channel Width of the requested BS in 10kHz</u> <u>159:152 - The 8 least-significant bits of MAC Frame number the channel switching.</u> <u>160 - The acknowledge for the channel switch request.</u> <u>0: rejection for fail in switching;</u> <u>1: succeeded in switching</u> <u>167:161 - reserved</u>
<u>Master Sub-frame Switch Request</u>	<u>7</u>	<u>22</u>	<u>15:0 – RTK</u> <u>63:16 - BSID of requesting BS</u> <u>111:64- BSID of requested BS</u> <u>135:112 - Channel Center Frequency of the requesting BS in 10kHz</u> <u>151:136 - Channel Width of the requesting BS in 10kHz</u> <u>153:152- The current master sub-frame ID of the requesting BS.</u> <u>159:154 - reserved</u> <u>167:160 - The 8 least-significant bits of MAC Frame number to switch channel.</u> <u>168 - Rolling back indication.</u> <u>0: to switch to one of the alternative channels;</u> <u>1: to switch back to the channel before the last channel switching request</u>
<u>Master Sub-frame Switch Response</u>	<u>8</u>	<u>22</u>	<u>175:169 reserved</u> <u>15:0 – RTK</u> <u>63:16 - BSID of requesting BS</u> <u>111:64- BSID of requested BS</u> <u>135:112 - Target Channel Center Frequency of the requested BS in 10kHz</u> <u>151:136 - Target Channel Width of the requested BS in 10kHz</u> <u>153:152 - The sub-frame ID of the requested BS will switch its master sub-frame to.</u> <u>159:154 - reserved</u> <u>167:160 - The 8 least-significant bits of MAC Frame number the channel swithing.</u> <u>168 - The acknowledgement for the channel switch request.</u> <u>0: rejection for fail in switching;</u> <u>1: succeeded in switching</u> <u>175:169 reserved</u>

<u>OCSI Backoff Request</u>	<u>9</u>	<u>15</u>	<u>15:0 – RTK</u> <u>63:16 - BSID of requesting BS</u> <u>111:64- BSID of requested BS</u> <u>113:112 - OCSN of the occupying OCSI</u> <u>119:114 - reserved</u> <u>120 The type of backoff request.</u> <u>1- start backoff request</u> <u>0- end of backoff request</u> <u>127:121 reserved</u>
<u>OCSI Backoff Response</u>	<u>10</u>	<u>3</u>	<u>15:0 – RTK</u> <u>17:16 - OCSI backoff indication.</u> <u>01- refuse to backoff</u> <u>00- refuse to end the backoff</u> <u>11- notification of acceptance and backoff begin</u> <u>10- notification of acceptance and backoff end</u> <u>23:18 - reserved</u>