Project	IEEE 802.16 Broadband Wi	reless Access W	orking Group <a href="http://ieee802.org/16">http://ieee802.org/16&gt;</a>
Title	Clarifications of some Coexistence Protocol messages		
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Re:	IEEE 802.16h-06/015 – Wor	king Group Re	view
Abstract	Proposes a more logical structure which will allow better understanding of the existing mechanisms		
Purpose			
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# Clarifications of some Coexistence Protocol messages

Mariana Goldhamer (Alvarion)

### Introduction

The sub-group of CP messages to be reviewed / improved / added is related to the BS parameters, Radio Signature transmission, power control and new sub-frame creation.

### 15.5.2.17 Get\_Param\_For\_Radio\_Signature\_Request message

Messages between BSs, used to request the <u>up-dated</u> list of parameters Code: 17

Parameters: list of the BS parametersnone

#### 15.5.2.18 Get\_Param For Radio Signature Reply message

Messages between BSs, reply to the Get\_Param\_Request

Code:18

# Table ha - Get Param Replay Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>u</u>	
<u>ini</u>	100     NOTE   NOTE
<u></u>	
<u>III</u>	
100	this is an annual to the second of the secon
<u>u</u>	
Repetition interval between two Master sub-frames	The repetition interval between two Master sub-frames, measured in MAC-frames
MAC Frame number	ifunia

Parameters: list of the BS parameters

# 15.5.2.19 Evaluate\_Interference\_Request message\_

A message sent by a new BS wishing to use an existing Master sub-frame, to the BS already acting as Masters in the specific sub-frame, and requesting them to evaluate its interference

A message sent by a new BS wishing to evaluate the maximum co-channel and total interference, for separate or aggregated systems in the Community. The message is sent to every Base Station in the Community, indicating either the request to send the Radio Signature or the request to be inserted a GAP DIUC/UIUC interval for the duration of the Radio Signature. Alternatively, a BSIS can broadcast the message to an IP-multicast group including all the BSs in the community. The Radio signature may be transmitted by the BS or by the associated SSs. In case of the Radio Signature transmission by the BS

should be given the possibility for 8 radio signatures, which may differ due to Beam Forming or power concentration on specific sub-channels. The message is indicating the MAC Frame number, the offset from its start and the duration of the requested Radio Signature.

Code: 19

Parameters: t.b.e. The attributes are indicated in the table hx.

Table hx - Evaluate Interference Request Parameter set

<u>Attribute</u>	<u>Contents</u>
1	<u>ini</u>
<u>   -  </u>	<u>iltrational</u>
<u>iiii</u>	<u>Sidnide</u>
<u>u</u>	
<u>107</u>	<u>ino</u>
<u>1011</u>	<u>inst</u>
1	
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hist	historia internalizarea
_	

15.5.2.20 Evaluate\_Interference\_Reply message A message sent by the existing Master BSs, reply to the Evaluate\_Interference\_Request. Code:20

The attributes are indicated in the table hy.

Table hy - Evaluate Interference Replay Parameter set

<u>Attribute</u>	<u>Contents</u>
ш	
	The state of the s
<u>u</u>	<u>livius</u>
	i garle informa.
<u> </u>	<u> </u>

Parameters: tbe.

### 15.5.2.21 Work In Paralel Request message

A message sent by a new BS wishing to use an existing Master sub-frame, to the a BS already acting as Masters in the specific sub-frame, and requesting them to evaluate its interference the existing BS to evaluate its interference.

If more than one Base Station is using the sub-frame as Master, the IBS will send this message to every BS separately.

The Radio Signature will be transmitted during the claimed Master sub-frame and will consist of a DL sub-frame, starting with the first zone using the mandatory permutation (if applicable) and continuing with other used zones and their permutations. Each zone will be transmitted using the maximum power. In the first zone will be sent the BSD (Base Station Descriptor) message, in the other zones will be transmitted a MAC header followed by no payload.

Code: 21

Parameters: t.b.c.

The attributes are indicated in the table hz.

Table hz - Work In Paralel Request Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>iiii</u>	<u>identidated</u>
<u>iiii</u>	<u>iiri piris</u>
<u>iii</u>	
intelli	
<u>iul</u>	
<u>II</u>	<u>hitrologous</u>
<u>infr</u>	<u>rintra contra</u>
<u>liul</u>	h <u>inicone</u>

Work In Parallel

### 15.5.2.22 Work In Parallel Reply message

A message sent by the existing Master BSs, reply to the Evaluate\_Interference\_Request.

Code:22

Parameters: tbe.

The attributes are indicated in the table ht.

Table ht - Work In Parallel Reply Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>iiil</u>	10.01
<u>iii</u>	100
Receive antenna type (1 – omni, 2 –	
<u>directional</u> )	
<u>iii</u>	<u> </u>
<u>ii</u>	1:=Acceptance
	2 = Rejection
	<u>Vilui</u>
<u>kinard</u>	

# 15.5.2.23 Reduce Power or Quit Sub Frame Request message

A message sent by an <u>old-operating</u> Base Station, <u>using the sub-frame as Master</u>, in order to request the newer Base Station to cease the operation as Master <u>or Slave</u> in the current sub-frame. <u>Supplementary</u>, the <u>message may indicate the power reduction for accepting the Base Station to use the sub-frame as Slave</u>. Code:23

Parameters: tbe.

The attributes are indicated in the table hu.

Table hu - Reduce Power or Quit Sub Frame Request Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>iihii</u>	<u>ihui</u>
<u>iiii</u>	<u>liriul</u>
<u>II</u>	<u>luchi</u>
<u>infr</u>	<u>iditirealu</u>
<u>                                      </u>	<u>in</u>
him	https://doi.org

# 15.5.2.24 Reduce Power or Quit Sub Frame Reply message

A message sent by an new Base Station, in response to the old Base Station's Quit\_Sub\_Frame\_Request message.

#### Code:24

Parameters: tbe.

The attributes are indicated in the table hu.

# Table hu - Reduce Power or Quit Sub Frame Replay Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>Visit</u>	in in the second
<u>iiii</u>	
ii	

# 15.5.2.25 Create\_New\_Sub\_Frame\_Request message

Code:25

Parameters: tbe.

The attributes are indicated in the table hv.

# Table hv - Create New Sub Frame Request Parameter set

<u>Attribute</u>	<u>Contents</u>
<u>iibi</u>	<u>ilitori</u>
<u>iiii</u>	
<u>iii</u>	
<u>iii</u>	i <del>liuli</del>
Repetition interval between two Master sub-frames,	The repetition interval between two Master sub-frames
measured in MAC-frames	
MAC Frame number	i <u>lmu</u>

# 15.5.2.26 Create New Sub Frame Request Replay message

A message sent in response to the Create\_New\_Sub\_Frame\_Request message.<u>In case of reject</u> Code:26

Parameters: tbe.

The attributes are indicated in the table hr.

# Table hr - Create New Sub Frame Replay Parameter set

<u>Attribute</u>	<b>Contents</b>

	<u>ii</u>	Li figlio
		<u>110</u>
ļ		

Note: the following 4 messages are redundant – shall be deleted also from table h9

# 15.5.2.27 Reduce\_Power\_Request message

A message between a BS and an interfering BS requesting to reduce the power of the specified transmitter (identified by frame\_number, sub-frame, time-shift) by P dB

Code: 27

Parameters: tbe.

### 15.5.2.28 Reduce Power Reply message

A message by an interfering BS in response to the Reduce Power Reply message.

Code: 28

Parameters: tbe.

# 15.5.2.29 Stop Operating Request message

A message sent by a Master BS to the BSs operating in its Master sub-frame, but not being Masters for this sub-frame, requesting to cease using this sub-frame in parallel

Code: 29

Parameters: tbe.

# 15.5.2.30Stop Operating Reply message

A message sent by the BSs operating in its Master sub-frame, in response to the Stop\_Operating\_Request message.

Code: 30

Parameters: tbe.