

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >	
Title	<b>New Additions to BS and SS information tables used by IEEE 802.16h Systems</b>	
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Re:	Call for Comments and Contribution, "IEEE 802.16's License-Exempt (LE) Task Group", 2006-02 Item 8.	
Abstract	This document specifies new additions in BS and SS information table to the draft IEEE802.16h. The sections and paragraphs given below refer to those of the subject working draft document IEEE802.16h-06/004. This document is based on revisions made to the original document IEEE802.16h-06 023	
Purpose	This document specifies new additions in BS and SS information table to the draft IEEE802.16h working document dealing with the use of CMI in a synchronized network environment.	
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## New Additions to BS and SS information tables used by

## IEEE 802.16h Systems

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### 15.2.2.4 Information table in share database

The following tables are the update of section 15.2.2.4. The following table h3 should replace the existing table h3 in section 15.2.2.4. The changes and new additions are highlighted in the table.

**Table h3 BS information table**

Syntax	Size (bits)	Notes
BS_information_table ( ) {		
Index	16 bits	
BSID	48 bits	This base station ID
Operator ID	?	
IP address	32 bits	IPv4 address
Sector ID	8 bits	
Master resource ID	8 bits	Sub-frame number
Negotiation status	8 bits	Bit0: get communication in the IP network Bit1: be registered in Bit2: register to Bit3: done for resource sharing (if coexistence neighboring) Bit4-7: tbc
Coexistence neighboring	1 bit	Coexistence neighbor with this BS ? 1 – yes 0 – no
<b>BS GPS coordinates</b>	<b>TBD</b>	<b>GPS coordinates of this Base Station</b>
<b>BS RF antenna sector ID</b>	<b>8 bits</b>	<b>Identifier of antenna creating this sector</b>
<b>BS nominal EIRP</b>	<b>TBD</b>	<b>Nominal EIRP of this Base Station</b>
<b>BS PSD Vector</b>	<b>TBD</b>	<b>PSD as determined by this BS of all available channels using RSSI scanning process</b>
<b>BS antenna azimuth</b>	<b>TBD</b>	<b>Azimuth orientation of this Base Station's antenna</b>
<b>BS antenna beamwidth</b>	<b>TBD</b>	<b>Azimuth Beam width of this Base Station's antenna</b>
If (coexistence neighbor) {		
Number of victim SSs	16 bits	N: The number of victim SSs of this coexistence neighbor in this network

For (I=1; I<=n; I++) {		
SSID	48bits	
RSSI	16bits	1 byte RSSI mean 1 byte RSSI standard deviation
}		
Tbc		
}		
Number of coexistence neighbors	8bits	M: the number of coexistence neighbors of this BS
For (I=1;I<=m;I++) {		
BSID	48bits	
Tbc		
}		
Profile () {		
Band		
Phy mode() {		
Modulation		
Tbc		
}		
Maximum power		
Number of registered SS		
Tbc		
}		
Tbc		
}		
<b>If (CMI Interval used) {</b>		
<b>Number of coexistence neighbors</b>		
<b>For (i=0; i&lt;=n; i++) {</b>	<b>TBD</b>	<b>All Co-existing neighbor BS information. This is the list of foreign BS, which may be causing interference to this BS and its SS</b>
<b>Foreign BSID</b>	<b>TBD</b>	<b>BS_ID of this foreign BS</b>
<b>Foreign BS IP address</b>	<b>TBD</b>	<b>IP address of this foreign BS</b>
<b>Foreign BS CMI-ID</b>	<b>TBD</b>	<b>CMI_ID of this foreign BS</b>
<b>Number of foreign SSs causing Co-channel interfering</b>	<b>TBD</b>	<b>Number of SS associated with this foreign BS causing interference to this BS</b>
<b>For (j=0; j&lt;=m; j++) {</b>	<b>TBD</b>	<b>All SSs associated with this foreign BS, which cause co-channel interference</b>
<b>Interfering SSID</b>	<b>TBD</b>	<b>SS_ID of this SS causing interference to this BS</b>
<b>CMI Interfering occurrence</b>	<b>TBD</b>	<b>Number of instances where interference recorded.</b>
<b>RSSI of interfering SS</b>	<b>TBD</b>	<b>RSSI of this interfering SS</b>

<b>SS interference resolved</b>	<b>1 bit</b>	<b>Has the interference caused by this SS been resolved by use of the CP between this BS and the foreign network?</b>
}		
}		
}		
}		

The following new table h4 shall replace the existing table h4 in section 15.2.2.4. The changes and new additions are highlighted in the table.

**Table h4 - SS information Table**

Syntax	Size (bits)	Notes
SS information table ( ) {		
Index	16	
SSID	48	
<b>SS location</b>	<b>TBD</b>	<b>Optional</b>
<b>SS GPS location</b>	<b>TBD</b>	<b>Optional</b>
<b>SS antenna beam width</b>	<b>TBD</b>	<b>Beam width of this SS antenna</b>
<b>SS nominal uplink EIRP</b>	<b>TBD</b>	<b>Nominal EIRP of this SS</b>
<b>SS PSD vector</b>	<b>TBD</b>	<b>Power Spectral Density determined by the SS by RSSI process scanning all available channels</b>
Interface status	1	Interfered by coexistence neighbor ? 1 – yes 0 – no
If (interfered) {		
Number of source BSs	8	
For (I=1; I<=n; I++){		
BSID	48	
IBS_IPBC deleted	1	1- yes; 0 – no
If (IBS_IPBC deleted) {		
IP address	32	If the IBS_IPBC message detected, the IP address report by the SS will add here, and update the bit above
Sector ID		Reported by SS
Frame number	24	Reported by SS

Error Status		0 – no error 1 – not capable to decode the energy pluuse symbol 2 – not able to find the eligible <SOF> 3 – not able to find the eligible <EOF> 4 – not able to pass the CRC chech for message
(tbc.)		
}		
RSSI	16	1 byte for RSSI mean 1 byte for standard deviation
(tbc.)		
}		
(tbc.)		
}		
<b>If (CMI frame used) {</b>		
<b>Associated BS ID</b>	<b>TBD</b>	<b>BS_ID to which this SS is associated</b>
<b>Associated BS RSSI</b>	<b>TBD</b>	<b>Mean RSSI of BS downlink to which this SS is associated</b>
<b>Associated BS RSSI Var</b>	<b>TBD</b>	<b>Variance of RSSI of downlink</b>
<b>Associated BS BER</b>	<b>TBD</b>	<b>BER of downlink</b>
<b>Number of foreign BSs</b>	<b>TBD</b>	<b>Number of foreign BS this SS has detected via BSD</b>
<b>For (I=0; I &lt;=n; I++) {</b>		
<b>Foreign BS ID</b>	<b>TBD</b>	<b>BS_ID of this foreign BS as determined from its BSD</b>
<b>Foreign BS EIRP</b>	<b>TBD</b>	<b>EIRP of this foreign BS as determined from its BSD</b>
<b>Foreign BS antenna sector ID</b>	<b>TBD</b>	<b>Antenna sector ID of this foreign BS as per BSD</b>
<b>Foreign BS Proxy IP address</b>	<b>TBD</b>	<b>Proxy IP address of this foreign BS as per BSD</b>
<b>Foreign BSD occurrence ratio</b>	<b>TBD</b>	<b>Defined as the ratio of demodulated foreign BSD messages to CTS cycles. A metric indicating severity of interference caused by this foreign co-channel BS.</b>
<b>Interference resolution</b>	<b>1 bit</b>	<b>An indication that interference from this foreign BS has been resolved by the CP.</b>
<b>CMI-ID</b>	<b>TBD</b>	<b>CMI_ID of this foreign BS</b>
}		
}		