IEEE P802.15
Wireless Personal Area Networks

Project	IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)
Title	Generalized Frame Format for the Coex-Beacon – Enhanced Beacon and Enhanced Beacon Request
Date Submitted	Nov., 2010
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Re:	
Abstract	IEEE 802.15 Task Group TG4g Comment Resolution
Purpose	To align the Coex-beacon with the generic format of the enhanced beacon
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Release	The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15.

Text – General Idea of this document

****Not Part of the Draft Modification****

General Idea:

The purpose of this document is to reorganize the coex-beacon (CB) to align with the enhanced beacon (EB) specified in TG4e. On-demand feature is also included with the addition of the enhanced beacon request (EBR).

Modifications to the draft including:

1. Reorganizing the CB format to align with the generic format of EB, with two additional 4g-specific IEs, namely the Coex Specification IE and Frequency Hopping Specification IE.

2. The Coex Specification IE is detailed in this document. (see in this document 7.2.2.4a.1)

3. Changing all names from CB to EB, including attributes containing the term "coex beacon"

4. Functional description for the on-demand feature (see in this document 7.5.8a)

The Frequency Hopping Specification IE is detailed in another document.

This document resolves the comments with CID as below:

77,93,142,143,297,334,499,500,504,505,596,598,599,673,675,678,680,919,926,1003,
1004,1007,1021,1073,1080,1168,1174

<u>Nov. 2010</u> <u>IEEE 802.15-10-0870-03-004g</u>

Instructions to the editors are given in ***Editorial Notes*** in red font.

Editorial note: Change the title of sub-clause 7.2.2.4a to the following.
7.2.2.4a Enhanced beacon frame format for Multi-PHY Management
Editorial note:Replace the entire sub-clause 7.2.2.4a with the below text.

When generated in response to an EBR, the content of the EB shall include the IE specified in Table 80o.

Editorial note: Delete the entire sub-clause 7.2.2.4a.1

Editorial note: Change the numbering of sub-clause from 7.2.2.4a.2 to 7.2.2.4a.1, as the following:
7.2.2.4a.1 Coex Specification IE
Editorial note: Modify sub-clause 7.2.2.4a.1 (previously 7.2.2.4a.2) with the below instructions.

Editorial note: Replace Figure 92b with the below:

Bits: 0	1-8	9-15	16-19	20-23	24-27	28-31	
0	Element ID	IE Content Length	Beacon Order	Superframe Order	Final CAP Slot	Enhanced Beacon Order	…
IE Descriptor							

	32-35	36-39	40-55	56-87	88-95
…	Offset Time Slot	CAP Backoff Offset	NBPAN Enhanced Beacon Order	Channel Page	Reserved

Figure 92b – Format of the Coex Specification field

Editorial note: Add the following text before line 10 in pg. 120.
The IE Descriptor subfield contains the first bit set to 0, the Element ID subfield and IE Content Length subfield.

Editorial note: replace the text from line 38 to 42 in pg. 120 with the following:
The Channel Page subfield shall be specified as in 6.1.2.7.

Editorial note: Delete Table 121a and 121b.

Editorial note: Change the term "Coex-beacon" to "Enhanced Beacon" or "EB" everywhere in this sub-clause 7.2.2.4a.1 (previously 7.2.2.4a.2).

Editorial note: delete the entire sub-clause 7.2.2.4a.4.

Editorial note: Perform the following actions in Table 127:
Delete entire row of "macCBSN"
Delete entire row of "macCoexBeaconPayloadLength"
Delete entire row of "macCoexBeaconPayload"
"Coex-beacon" to "Enhanced Beacon" or "EB"
"macCoexBeaconOrder" to "macEnhancedBeaconOrder"
"macNBPANCoexBeaconOrder" to "macNBPANEnhancedBeaconOrder"

Editorial note: Change the title of sub-clause 7.5.1.2a to the following:
7.5.1.2a MPM enhanced beacon timing
Editorial note: Change the following terms everywhere in this sub-clause including Figure 105a:
"Coex-beacon" to "Enhanced Beacon" or "EB"
"Coex-beacon order (CBO)" to "Enhanced Beacon Order (EBO)"
"Coex-beacon interval (CBI)" to "Enhanced Beacon Interval (EBI)"
"macCoexBeaconOrder" to "macEnhancedBeaconOrder"
"macCoexBeaconInterval" to "macEnhancedBeaconInterval"
"macNBPANCoexBeaconOrder (CBO_{NBPAN})" to "macNBPANEnhancedBeaconOrder (EBO_{NBPAN})"
"macNBPANCoexBeaconInterval (CBI_{NBPAN})" to "macNBPANEnhancedBeaconInterval (EBI_{NBPAN})"

7.5.6.1 Transmission, reception, and acknowledgment

Editorial note: Change the following terms everywhere in this sub-clause:

"Coex-beacon" to "Enhanced Beacon" or "EB"

"CBSN" to "EBSN"

"macCBSN" to "macEBSN"

Editorial note: Change the title of sub-clause 7.5.8a to the following:

7.5.8a Inter-PHY coexistence with enhanced beacon frames for SUNs

Editorial note: Change the following terms everywhere in this sub-clause including Figure 112b and 112c:

"Coex-beacon" to "Enhanced Beacon" or "EB"

"CB" to "EB"

"CBI$_{NBPAN}$" to "EBI$_{NBPAN}$"

Editorial note: Add after the last paragraph in sub-clause 7.5.8a, the following paragraph:

Alternatively, the EB may be obtained in an on-demand manner. In this case, the EBR is sent by the incoming coordinator requesting the EB from the existing coordinator. Upon receiving the EBR, the existing coordinator (or any other coordinator-capable device receiving the EBR within the same POS) may respond by sending the EB to the incoming coordinator.