

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	From Session #52: unresolved structure and notation enhancements from IEEE C802.16h-07_096 and dependent comments from IEEE 802.16h-07_053r2	
Date Submitted	2008-01-15	
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Re:	Letter Ballot #29 of IEEE P802.16h/D3.	
Abstract	This contribution considers unresolved aspects of contribution IEEE C802.16h-07_096 following Session #52. A number of comments in Session #52 were noted as being resolved by aspects of contribution IEEE 802.16h-07_096. This contribution also reviews and makes recommendations on the resolution of these comments.	
Purpose	Ensuring the readability and correctness of the draft IEEE P802.16h/D3.	
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From Session #52: unresolved structure and notation enhancements from IEEE C802.16h-07_096 and dependent comments from IEEE 802.16h-07_053r2

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1. Introduction

This document covers:

- Unresolved structure and notation enhancements from IEEE C802.16h-07_096 [3] which were not included in the revision IEEE C802.16h-07_096r4 [4]. IEEE C802.16h-07_096r4 [4] was accepted at Session #52 as part of comment resolution in IEEE 802.16h-07_053r2 [2].
- A number of comments from IEEE 802.16h-07_053r2 [2] at Session #52 were deferred to be resolved by Contribution IEEE C802.16h-07_096 [3]. These comments are covered in [5]. This document suggests resolutions for the majority of these comments.

Please note:

The following comments from *Commentary* database [2] and assigned to be resolved by the author in [5] are **not** addressed.

- 2, 85, 87, 89.

2. Scope of editing changes

Structure and notation enhancements to IEEE P802.16h/D3 are presented in this clause together with the resolution of outstanding comments assigned to the author. This introduces the motivation for the editing changes that follow in section 3.

2.1. Removal of unnecessary and redundant features

Review of [1] reveals a number of subclauses containing redundant features:

- 6.4.1.1 *Capability Negotiation*. Tagged [comment_x 1].
- 6.4.2.3.3 *Enhanced Measurement and Reporting for Non-Exclusively Assigned or Non-exclusively Licensed Bands*. Tagged [comment_x 2].
- 15.7 *Overview of regulatory domains*. Tagged [comment_x 3].

2.2. Action item comment resolution

Comment 2: Shouldn't WirelessMAN-CX system revert to uncoordinated mechanisms if coordination doesn't work? Furthermore, section 6.4.1 refer directly to WirelessMAN-CX systems.

Not addressed by the scope of this contribution.

Comment 55: The sentence "as this will reduce the need for operator coordination" assumes that even in the case of UCP a form of coordination (even small) is required.

Adding text in section 3 with tag [Comment55].

Comment 65: During the editing of C80216-07_078r2 to create IEEE P802.16h/D3 references to '802.16h' were replaced with 'WirelessMAN-CX'. This is incorrect.

Comment covered by IEEE C802.16h-07_096r4 [4].

Comment 72: Fig. h19 does not include the relation between the DMA region and the CX-Frame.

Comment covered by IEEE C802.16h-07_096r4 [4].

Comment 79: It is unclear why we need two methods of channel measurements (extended and periodic). What is the use of extended measurements?

Comment covered by IEEE C802.16h-07_096r4 [4]. The modifications to the IE in the contribution means the IE contains support for ExChNr which means channels outside the range of 5-6GHz can be referenced.

Comment 80: Extended Channel number is not defined

Comment covered by IEEE C802.16h-07_096r4 [4].

Comment 81: This section [8.5.1.1] does not contain any text.

Comment covered by IEEE C802.16h-07_096r4 [4].

Comment 83: This section [8.5.1.1] does not contain any text.

Comment covered by IEEE C802.16h-07_096r4 [4].

Comment 85: The Wireless-MAN-CX feature support may be function of the regulatory domain. Both SBC-REQ and SBC-RSP need to specify for which regulatory domain is the information valid. For future-proof usage of the messages the Length should be at least 4 bytes.

Comment covered from the perspective of ensuring the document correctness by IEEE C802.16h-07_096r4 [4]. Further enhancements for WirelessMAN-CX is not covered.

Comment 86: The Wireless-MAN-CX feature support may be function of the regulatory domain. Both SBC-REQ and SBC-RSP need to specify for which regulatory domain is the information valid. For future -proof usage of the messages the Length should be at least 4 bytes.

Succeeded by IEEE C802.16h-07_096r4 [4].

Comment 87: 1 byte is enough for this IE.

Not addressed by the scope of this contribution.

Comment 89: For REP-REQ Extended Report some fields are un-clear.

IEEE C802.16h-07_096r4 [4] covers a backwards compatibility issue for this table but no specific descriptions of SSUs have been added.

3. Specific editing changes

Blue underlined text represents specific editorial additions.

~~Red strikethrough~~ text is to be deleted.

Black text is text already in the draft.

Bold italic text is editorial instructions to the editor.

[Comment_x 1] Delete clause title ‘6.4.1 General concepts’ from [1].

Delete 6.4.1.1 subclause ‘Capability Negotiation’ from [1].

Move subclause 6.4.1.2 ‘Additional ranging requirements for WirelessMAN-CX systems’ in [1] to a new subclause 15.2.3.

[Comment_x 2] Move subclause 6.4.2.3.3 ‘Enhanced Measurement and Reporting for Non-Exclusively Assigned or Non-exclusively Licensed Bands’ from [1].

[Comment 55] Add the following to the end of the first paragraph page 34, line 26 of [1].

Operator coordination is necessary when there are conflicts that are not cleared up automatically. If there are two operators on the same channel and the equipment of the first has randomly chosen a different master allocation in each cell, then it becomes much more difficult for the equipment of the second operator to automatically select non-interfering allocations. The third system becomes even more difficult. Any unresolved cases must be resolved through operator coordination as the automated methods will have failed. Simply choosing the same master allocation for all cells of a given operator substantially reduces the likelihood that such a scenario will arise and, therefore, reduces the need for operator coordination.

[Comment_x 3] Delete the text in subclause 15.7 in [1] but retain the title.

Delete subclause 15.7.2 title and text in [1].

Delete subclause 15.7.3 title and text in [1].

Delete subclause 15.7.4 title and text in [1].

Delete subclause 15.7.5 title and text in [1].

Delete subclause 15.7.6 title and text in [1].

[Comment 65] Section 15.7.1: In table h46 page 170 add the following text to the ‘recommendations’ column at rows with index 5, 6, 7, and 8.

802.22 [B53] is the primary solution for this band.

Add the following reference in section Annex A Bibliography.

[B53] IEEE P802.22™, Draft Standard for Wireless Regional Area Networks Part 22: Cognitive Wireless RAN Medium Access Control (MAC) and Physical Layer (PHY) specifications: Policies and procedures for operation in the TV Bands.

4. References

- [1] IEEE P802.16h/D3: *Air Interface for Fixed Broadband Wireless Access Systems Improved Coexistence Mechanisms for License-Exempt Operation*, Draft Standard.
- [2] IEEE 802.16h-07_053r2: Letter Ballot #29 *Commentary* database file with resolutions from Session #52.
- [3] Paul Piggin, *Structure and notation enhancements to IEEE P802.16h/D3*, IEEE C802.16h-07_096.
- [4] Paul Piggin, *Structure and notation enhancements to IEEE P802.16h/D3*, IEEE C802.16h-07_096r4.
- [5] IEEE 802.16h-07_106: *List of action items and ad hocs from Session #52*, LE TG document.