

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >		
Title	Modified structure of the 802.16h Working Document		
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Re:	IEEE 802.16h-06/016 –Second Working Group Review: Working Document for P802.16h (2006-06-05)		
Abstract	The updated revision of IEEE C802.16h-06/046 during the discussion in [16h-TOC] ad-hoc group revision 1.		
Purpose	Proposes a more logical structure which will allow better understanding of the existing mechanisms		
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Modified structure of the 802.16h Working Document- With comments in [16h-TOC] Ad-hoc till July 4th

Wu Xuyong (Huawei)

Introduction

To make the WD to be easy understood, we need to add more summarize information in the general clause of the WD, and reconstruct the WD. Here is the proposed changes for the new structure, after further consideration in the TG, we can make out a instruction for the editor to WD reconstruction.

It is a detailed revision of C80216h-06_046. The result of these proposed changes on the working document have been implemented in uploaded as C80216h-06_048. These two paper will be the output of [16h-TOC] ad-hoc group after discussion.

Mariana: the proposed structure has evident merits. However I feel that the understanding of few issues may be affected by fragmentation of the text, so I re-grouped some paragraphs.

General Summarization:

NO technical issues are motioned in this contribution, ALL the content in the original working document (IEEE802.16h-06_015) was EXCEPT some of the EMPTY sub-clause. Some linking text have been added in **RED** at the beginning of some new sub-clause for integrality.

The first two level structure of the clause15 in the working document after reorganization is show below.

Mariana: For the Table below, 15.1, I would change the order of sub-chapters: Components, Mechanisms, Procedure, Frame Structure, Architecture.

New paragraph Number	New paragraph Title
15.1	General
-15.1.1	Component and relationship
-15.1.2	Mechanisms in WirelessMAN-CX
-15.1.3	Procedure flow in WirelessMAN-CX
-15.1.4	Frame Structure for WirelessMAN-CX
-15.1.5	Architecture for WirelessMAN-CX
15.2	Provision for the WirelessMAN-CX procedure
-15.2.1	Synchronization between WirelessMAN-CX systems
-15.2.2	Scanning before interference identification
-15.2.3	Power control
-15.2.4	DFS
-15.2.4	Same PHY Profile
-15.2.5	Coexistence proxy
15.3	Interference identification and basic connectivity creation-
-15.3.1	Coexistence Signaling mechanisms
-15.3.2	Coexistence Messaging mechanism
-15.3. 3	Information table
15.4	Interference Preventing
-15.4.1	Adaptive channel selection
-15.4.2	Adaptive sub-frame allocation
-15.4.3	Power Control
-15.4.4	Radio signaling to Ad-Hoc systems

15.5	Messages for WirelessMAN-CX [no change in structure]
15.6	Recommended practice for WirelessMAN-CX
-15.6.1	Grouping of interfering/not-interfering units
15.7	coexistence with non-WirelessMAN-CX systems
-15.7.1	Interference from Non-IEEE 802.16 systems.
-15.7.2	Coexistence with non-WirelessMAN wireless access systems

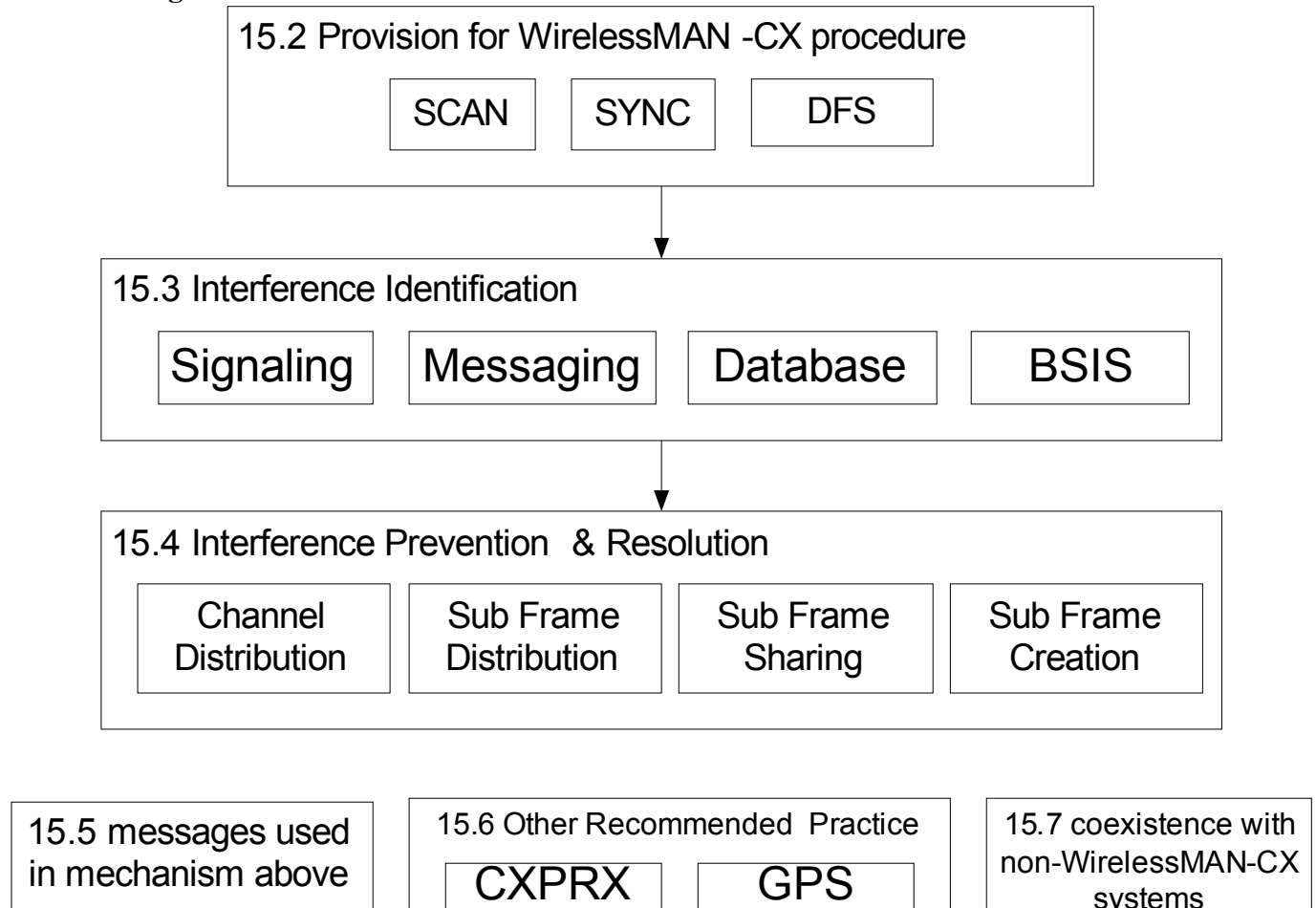
Proposed Changes

New paragraph Number	New paragraph Title	Old section number in 802.16h-06/016 to move (page/row up to page/row)	Notes See C80216h-06_048
-15.1	General	15.1 24/45 – 24-47	
-15.1.1	Component and relationship	15.1.1 15.6.2.2.7(Legitimate request) was move to the description of <i>system</i>	No change in text
-15.1.2	Mechanisms in WirelessMAN-CX	15.1.1 24/49~25/65	Add a Figure h12-Summarization diagram of coexistence mechanism
-15.1.3	Procedure flow in WirelessMAN-CX	new	No change in text [Notes: the general procedure flow of Operating stage are to be described here]
-15.1.3.1	Procedure flow for BS	15.2.1.3 48/7~51/65	No change in text
-15.1.3.2	Procedure flow for SS	15.2.1.4 (SS community Entry)	No change in text
-15.1.4	Frame Structure for WirelessMAN-CX		Add a paragraph to state the multiple Frame Structure enhancements
-15.1.4.1	Frame Structure for interference identification		A figure and general description added show the difference between CSI&CMI
-15.1.4.1.1	Coexistence signaling interval	15.2.1.1.3	No change in text
-15.1.4.1.2	Coexistence messaging interval	15.2.1.1.7	No change in text
-15.1.4.2	Frame Structure for interference prevention & Resolution	15.2.1.1 29/63-31/40 (Comment by Mariana: this text is not related to the frame structure; Mariana, would you give some proposal on this text?) insert a sentence pointing to frame structures detailed in 15.4.2	See C80216h-06_048 old colorful figure have been redrawn by editor – (Mariana: The figure needs some revision) A figure added indicating the examples of subframes

-15.1.5	Architecture for WirelessMAN-CX	15.2.2.1 15.2.2.2 15.2.2.3 15.2.1.1.6 15.3.2.5 <u>15.2.2.3.2</u>	No change in text
-15.2	Provision for the WirelessMAN-CX procedure		A sentence added.
-15.2.1	Synchronization of the WirelessMAN-CX systems	15.6.2.1 1. A sentence added indicating the further explanations in 15.7 2. note on Ah-Hoc deleted–synchronization is not the word for the process	With sub-clause renumbering
-15.2.2	Scanning before interference identification	15.6.1 96/28-96/31	No change in text
-15.2.2.1	Acceptable S/(N+I)	15.6.1.1	No text
-15.2.2.2	Acceptable time occupancy	15.6.1.2	No text
-15.2.3	Power control	15.2.1.10	No change in text
-15.2.4	DFS	15.4.1	No text
-15.2.5	Same PHY Profile	15.2.2.3.1	No change in text
-15.3	Interference identification and basic connectivity creation	15.3	Old title in 15.3.1 & 15.3.1.1 deleted, and all the text still remain in 15.3
-15.3.1	Coexistence signaling mechanism	new	A sentence added – needs some edits – Note 1
-15.3.1.1.	Coexistence Signaling Interval	new	No text added
-15.3.1.1.1	CSI scheduling	15.3.1.1.1	Title of the sub-clause changed.
-15.3.1.1.2	CSI Frame Structure	15.2.1.1.5	No change in text
-15.3.1.1.3	Energy keying in time domain	15.2.1.1.4	No change in text
-15.3.1.2	Energy keying in frequency domain	New	No text added.
-15.3.1.2.1	Signaling procedures using frequency-keyed energy pulses	New	add text - See Note 2
-15.3.1.2.2	Using the coexistence slot for transmitting the BS IP identifier	15.4.4.1.5	No change in text
-15.3.1.3	Community entry of new BS using signaling	15.2.1.3	No change in text
-15.3.2	Coexistence messaging mechanism	new	No text added
-15.3.2.1	Coexistence Messaging Interval (CMI) Use for Same Profile Systems	15.2.2.3.1.1	No change in text
-15.3.2.2	Candidate Channel Determination (Using GPS/UTC Synchronized CMI and Common Profile)	15.4.2.1.1	No change in text
-15.3.2.3	Community entry of new BS using messaging	15.2.1.3.1	Title of the sub-clause shortened and no change in the text inside
-15.3.4	Information table	new	No change in text

-15.3.4.1	Information table in distributed database	15.3.2.4	No change in text
-15.3.4.2	Information table in centralized database	15.3.2.5.2	No change in text
-15.4	Interference prevention	Add 15.2.1.1 28/50-29/59 in And Add 15.2.1.5 in	No change in text
-15.4.1	Adaptive channel selection		
-15.4.1.1	How to select a "free" channel (for ACS and DFS)	15.6.1	No change in text
-15.4.1.2	Optimization of Channel Distribution	15.6.1.3	No change in text
-15.4.2	Adaptive sub-frame allocation		No text added
-15.4.2.1	Sub frame sharing & scheduling		No text added
-15.4.2.1.1	Cooperation with other systems	15.2.1.1.1	No change in text
-15.4.2.1.2	Scheduling of interference free intervals in the context of IEEE 802.16 MAC	15.2.1.1.2	No change in text
-15.4.2.2	Sub frame distribution optimization	new	No text yet
-15.4.2.3	Creation of a new sub-frame	15.2.1.7	
-15.4.2.4	Interference Control in sub-frames	15.2.1.2	Only change the name from Interference Control
-15.4.2.4.1	Controlling interference during master sub-frame	15.2.1.8	No change in text
-15.4.2.4.2	Controlling interference during not-interfering traffic sub-frames	15.2.1.9	No change in text
-15.4.2.5	Credit token based coexistence protocol	15.6.2.2.6	No change in text
-15.4.3	Interference prevention from Ad-Hoc systems	new	Change of title
-15.4.3.1	Operating principles	15.4.4.1.1	Change of title
-15.4.3.2	Registration	15.4.4.1.2	No change in text
-15.4.3.3	Selection of suitable reception sub-frames	15.4.4.1.3	No change in text
15.4.3.4	Signaling procedures using frequency-keyed energy pulses	15.4.4.1.4	No change in text
-15.5	Messages for WirelessMAN-CX	15.5 Transmission of information	Only change the chapter name
-15.6	Recommended practice for WirelessMAN-CX	new	No text added
-15.6.1	Grouping of interfering/not-interfering units	15.3.1.2	No change in text
-15.7	coexistence with non-WirelessMAN-CX systems	Add text from 15.4.4.1.6	No change in text
-15.7.1	Interference from Non-IEEE 802.16 systems.	15.3.1.1.3	No change in text
-15.7.2	Coexistence with non-WirelessMAN wireless access systems	15.2.1.11	No change in text

Insert this figure in 15.1.4 after the mechanism list



Note 1: The radio signaling mechanisms are defined in order to provide the basic connectivity information between neighbor systems using different PHY profiles.

Note 2: The signaling procedures using frequency-keyed energy pulses are described in chapt. 15.4.4 (Radio Signalling to Ad-Hoc Systems).