Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Consideration on the scope of 802.16m coexistence requirements**
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Re:	IEEE 80216m-07_022
Abstract	Text proposal on coexistence requirements
Purpose	Contribution accompanying submitted comment. Clarify requirements on coexistence to anticipate the band allocated for IMT Advanced systems.
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Consideration on the scope of 802.16m coexistence requirements

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Introduction

This is a contribution accompanying submitted comment.

Depending on the bands allocated for the IMT Advanced systems, different coexistence scenarios requirements (due to unknown outcome of WRC 2007) should be envisaged for IEEE 802.16m based system:

1. 802.16m and non 802.16m systems have primary access in the band (licensed). Spectrum sharing cannot be enabled on a short term basis between a 802.16m system and other 802.16m or non 802.16m systems.
2. 802.16m and non 802.16m systems have primary access in the band (licensed). Spectrum sharing can be enabled on a short term basis between a 802.16m system and other 802.16m or non 802.16m systems.
3. 802.16m has secondary access in the band of some other non 802.16m primary systems (e.g. FSS):
    a. On a non co-channel basis/coordinated or non coordinated
    b. On a co-channel basis/coordinated on non coordinated

The requirement document lacks precision regarding the coexistence scenarios.
The requirements document should reflect more precisely the cases 1 to 3 to reflect the requirements coexistence related to any output of the band identified for IMT Advanced systems.

Specific editorial changes

This section provides a list of changes to the draft document.

Blue 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.

Proposed text

[Re-organize current clause 8.4 into two sub-clauses 8.4.1 and 8.4.2 in the requirements document [1]:]

[Create a new sub-clause 8.4.2. as indicate in the requirements document [1]:]

8.4.2 Coexistence scenarios
Depending on the bands allocated for the IMT Advanced systems, different coexistence scenarios requirements (due to unknown outcome of WRC 2007) should be envisaged for IEEE 802.16m based system:

1. 802.16m and non 802.16m systems have primary access in the band (licensed). Spectrum sharing cannot be enabled on a short term basis between a 802.16m system and other 802.16m or non 802.16m systems.

2. 802.16m and non 802.16m systems have primary access in the band (licensed). Spectrum sharing can be enabled on a short term basis between a 802.16m system and other 802.16m or non 802.16m systems.

3. 802.16m has secondary access in the band of some other non 802.16m primary systems:
   a. On a non co-channel basis/coordinated or non coordinated
   b. On a co-channel basis/coordinated on non coordinated

[Create sub-clause 8.4.1. and move current text of clause 8.4 (page 20, line 19) into 8.4.1 as indicate in the requirements document [1]:]

~~IEEE 802.16m is anticipated to be deployed in the same RF bands as the legacy network. Moreover, it~~It is ~~also~~ envisioned that the IEEE 802.16m can be deployed in the same or overlapping geographical areas with other wireless networks based on different RAT (Radio Access Technologies). They may or may not have the same network topology. Moreover, it is anticipated that IEEE 802.16m is to be deployed in the same (on a co-channel and no co-channel basis) or adjacent RF bands as non IEEE 802.16m legacy networks. For instance, T~~t~~hese non-802.16 networks may operate in the adjacent ~~neighboring~~ licensed frequency bands such as CDMA2000, 3GPP (e.g., GSM, UMTS, HSDPA/HSUPA, LTE) or in unlicensed bands such as 802.11x networks. ~~They may or may not have the same network topology.~~ Coexistence of networks specified on the basis of the IEEE 802.16m amendment with these networks as well as other IEEE 802.16 ~~networks~~ must be guaranteed from the perspective of being both an interferer and being a victim depending on the coexistence scenarios of sub-clause 8.4.2.

[Update text of sub-clause 5.4. (page 9, line 27) as indicate in the requirements document [1]:]

"IEEE 802.16m shall be capable of coexisting with other IMT-Advanced technologies as described in sub-clause 8.4.2."

[Update text of sub-clause 6.12. (page 15, line 14) as indicate in the requirements document [1]:]

"IEEE 02.16m may support inter-working with the following RATs including coexistence as described in sub-clause 8.4.2".

References

[1] IEEE 80216m-07_002r2, "Draft IEEE 802.16m Requirements", 2007-06-08