

Project	IEEE 802.16 Broadband Wireless Access Working Group < http://ieee802.org/16 >	
Title	IEEE802.16m Deployment-Related Requirements	
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Re:	Call For Contributions on Requirements for P802.16m – Advanced Air Interface	
Abstract	This contribution provides a set of Deployment-Related Requirements for the P802.16m Advanced Air Interface amendment, based on the initial Draft Requirements document IEEE 802.16m-07/002.	
Purpose	This document is submitted in response to the Call For Contributions on Requirements for P802.16m – Advanced Air Interface, dated 2007-01-29, issued by the 802.16 Working Group.	
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Deployment-Related Requirements for 802.16m

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Introduction

Considering that

Multi-hop radio link technologies are considered to be another important element of IMT-Advanced systems to provide coverage and capacity benefits. IEEE802.16m systems are expected to cover cell ranges up to 100km, relay. Amongst other technologies, Multi-hop Relay technology will play a crucial role in enabling such requirements.

IEEE802.16j task group is already in the process of developing multi-hop relay capability for IEEE802.16e systems.

The need to enable smooth and flexible evolution and migration paths for IEEE802.16 networks already deployed using IEEE802.16 legacy systems to IEEE802.16m system.

The spectrum is a scarce resource and as such existing spectrum allocation to IEEE802.16 and IMT-2000 legacy systems should be useable/re-usable, in full or in part, for deploying IEEE802.16m systems.

this contribution provides related requirements for the P802.16m Advanced Air Interface amendment.

Text to be Added

Insert the following text in Section 8.0 of the Draft Requirements document IEEE 802.16m-07/002.

8.0 Deployment-Related Requirements

8.2 Spectrum Requirements

IEEE802.16m standard shall provide MAC and PHY support to enable efficient spectrum sharing with legacy IEEE802.16 family systems and where practically possible, with other IMT-2000 systems. IEEE802.16m standard shall provide MAC and PHY support to enable efficient spectrum sharing with other IMT-Advanced systems. The IEEE802.16m standard shall support spectrum sharing with these other systems deployed in the overlapping and non-overlapping geographical areas.

8.3 System Architecture

The IEEE802.16m standard shall support in-band multi-hop relay technologies. IEEE802.16m standard shall enable IEEE802.16m base station to support legacy IEEE802.16j relay stations without degradation of performance of the multi-hop relay radio links. IEEE802.16m standard shall enable IEEE802.16m relay stations to efficiently operate with legacy IEEE802.16j base stations and IEEE802.16e mobile stations without degradation of the overall radio performance compared to the legacy IEEE802.16j system.