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Title	**Input on 802.16m Functional Requirements (Section 6.0)**
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Source(s)		
	Michael Webb Dale Branlund BRN Phoenix Inc. 2500 Augustine Drive Santa Clara, CA 95054	Voice: (408) 572-9706 Fax: (408) 351-4911 [mailto: mwebb@brnphoenix.com]
	Sunil Vadgama Mike Hart Yuefeng Zhou Fujitsu Laboratories Ltd Hayes Business Park Hayes End Road Hayes, Middlesex, UB4 8FE United Kingdom	Voice: +44 20 86064514 Fax: +44 20 86064539 [mailto: sunil.vadgama@uk.fujitsu.com]
	John Norin, Robert Popoli The DIRECTV Group, Inc. 2250 East Imperial Hwy El Segundo, CA 90245	Voice: +1-310-964-0717 Fax: +1-310-535-5422 [mailto: john.norin@directv.com]

Re:	Call For Contributions on Requirements for P802.16m – Advanced Air Interface
Abstract	This contribution provides a set of Functional 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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incorporated into a draft standard being developed within the IEEE 802.16 Working Group. The Chair will disclose this notification via the IEEE 802.16 web site <http://ieee802.org/16/ipr/patents/notices>.

Input on Functional Requirements for 802.16m

Michael Webb, Dale Branlund (BRN Phoenix), Sunil Vadgama, Mike Hart, Yuefeng Zhou (Fujitsu Laboratories), John Norin, Robert Popoli (The DIRECTV Group)

Abstract

This contribution provides a set of Functional Requirements for the P802.16m Advanced Air Interface amendment. These requirements address section 6.0 of the Draft Requirements document IEEE 802.16m-07/002.

Text to be Added

Insert the following text:

6.0 Functional Requirements

6.1 Peak Data Rate

The IEEE 802.16m standard shall provide support for active interference cancellation techniques. The purpose of active interference cancellation is to minimize degradation of user data rates in all regions of a fully loaded cell in an interference limited, full frequency reuse environment. Performance of interference cancellation shall be such that SINR degradation in all regions of a cell is less than 3 dB between the unloaded cell case and a fully loaded cell case.

The IEEE 802.16m standard shall provide data rates of at least 100 Mbps for mobile users and 200 Mbps for fixed or portable users. These data rates shall be defined as the sum of the data rates experienced by all active users on a given radio resource or channel in a given cell, exclusive of MAC and PHY overheads and regardless of user distribution within the cell.

The IEEE802.16m standard shall be capable of supporting cell edge data rate per link of at least 5 Mbps in all supported cell types exclusive of MAC and PHY overheads.

6.2 Latency

The IEEE 802.16m standard shall provide methods to reduce channel estimation latency by at least 50% in order to enable higher speed mobility.

6.4 Radio resource management

The IEEE 802.16m standard shall provide MAC and PHY support to enable spatial scheduling techniques (SST). SST enables the allocation of independent spatial channels to multiple users on the same RF channel in the same time interval.

The IEEE 802.16m standard shall provide sufficient access channel (including bandwidth request and ranging) performance and capacity such that all bearer channel capacity can be fully utilized under worst case traffic profile assumptions (i.e. those associated with very bursty and intermittent traffic).