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Re:	Requirements for P802.16m-Advanced Air Interface
Abstract	This is the approved baseline TGM System Requirements. As directed by TGM, the document has been revised according to the comment resolution conducted by TGM in Session #51
Purpose	Updated high-level system requirements for the P802.16m draft
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2 **1.0 Overview**

3

4 The 802.16m amendment shall be developed in accordance with the P802.16 project authorization
5 request (PAR), as approved on 6 December 2006 [1], and with the Five Criteria Statement in IEEE
6 802.16-06/055r3 [2].

7 According to the PAR, the standard shall be developed as an amendment to IEEE Std 802.16 [3][4]. The
8 resulting standard shall fit within the following scope:

9 *This standard amends the IEEE 802.16 WirelessMAN-OFDMA specification to provide an*
10 *advanced air interface for operation in licensed bands. It meets the cellular layer requirements*
11 *of IMT-Advanced next generation mobile networks. This amendment provides continuing support*
12 *for legacy WirelessMAN-OFDMA equipment.*

13

14 And the standard will address the following purpose:

15 *The purpose of this standard is to provide performance improvements necessary to support*
16 *future advanced services and applications, such as those described by the ITU in Report ITU-R*
17 *M.2072.*

18

19 The standard is intended to be a candidate for consideration in the IMT-Advanced evaluation process
20 being conducted by the International Telecommunications Union– Radio Communications Sector (ITU-
21 R) [5][6][7].

22 This document represents the high-level system requirements for the 802.16m amendment. All content
23 included in any draft of the 802.16m amendment shall meet these requirements. This document,
24 however, shall be maintained and may evolve. These system requirements embodied herein are defined
25 to ensure competitiveness of the evolved air interface with respect to other mobile broadband radio
26 access technologies as well as to ensure support and satisfactory performance for emerging services and
27 applications. These system requirements also call for significant gains and improvements relative to the
28 preexisting IEEE 802.16 system that would justify the creation of the advanced air interface.

29 To accelerate the completion and evaluation of the standard, to improve the clarity and reduce
30 complexity of the standard specification, and to further facilitate the deployment of new systems, the
31 number of optional features should be minimized.

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2 **2.0 References**

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- 8 [4] IEEE Std. 802.16e-2005, IEEE Standard for Local and metropolitan area networks, Part 16: Air
9 Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment 2: Physical
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