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Title	<b>IEEE 802.16m General Requirements Section 5</b>
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Re:	This contribution is in the response of Call for Contributions on Requirements for P802.16m Advanced Air Interface on Jan. 30 <sup>th</sup> , 2007.
Abstract	This document proposes a set of general requirements for the consideration of 802.16m TG, based on the initial Draft Requirements document IEEE 802.16m-07/002.
Purpose	To propose text to set general requirements for P802.16m.
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# IEEE 802.16m General Requirements

## Introduction

This document proposes a set of general requirements for the consideration of 802.16m TG, in the response of Call for Contributions on Requirements for P802.16m Advanced Air Interface on Jan. 30th, 2007. The document addresses the section 5 of the initial Draft Requirements document IEEE 802.16m-07/002.

The following is proposed modification to the baseline text.

## 5.0 General Requirements

### 5.1 Legacy Support

IEEE 802.16m is based on the IEEE Standard 802.16 WirelessMAN-OFDMA specification.

~~The amendment provides continuing support for legacy subscriber stations. This continuing support shall be limited to only a “harmonized sub-set” of IEEE 802.16e OFDMA features. This harmonized sub-set is captured by the WiMAX Forum™ definition of OFDMA mobile system profiles [1]. These WiMAX mobile system profile is defined, for purposes of this document as the 802.16e reference system.~~

~~A legacy 16e terminal, compliant with the 802.16e reference system, shall be able to operate with a new 16m BS with no degradation of performance.~~

~~An IEEE 802.16m BS shall be able to support an IEEE 802.16e terminal if operating in the same band with minimal degradation of performance.~~

A new 16m terminal shall be able to operate with a 16e BS, compliant with the 802.16e reference system, at a level of performance that is no worse than the 16e terminal.

~~The IEEE 802.16m solution must be able to support migration of actual networks towards IMT-Advanced systems.~~

### 5.2 Complexity

PHY/MAC should enable a variety of hardware platforms with different performance/complexity requirements.

~~IEEE 802.16m system shall satisfy the required performance. In addition, the system complexity shall be minimized by adhering to the following:~~

- ~~a) Minimize the number of options~~
- ~~b) No redundant mandatory features~~

~~The IEEE 802.16m Requirements should minimize the complexity of the 802.16m Mobile Station in terms of size, weight, battery life (standby and active) consistent with the provision of the advanced services of the IMT-A. For this, the following steps shall be followed;~~

- ~~a) The Mobile Station complexity in terms of supporting multiple radio access technologies (e.g. IEEE 802.16e, IEEE 802.11, GERAN, UTRAN, EV-DO etc.) should be considered when considering the complexity of 802.16m features.~~

- b) The mandatory features for the Mobile Station only shall be kept to the minimum.
- c) There shall be no redundant or duplicate specifications of mandatory features, or for accomplishing the same task.
- d) The number of options shall be minimized.

### **5.3 Services**

IEEE 802.16m architecture shall be flexible in order to support required services from ITU-R.

IMT-Advanced QoS requirements shall be supported including end-to-end latency, throughput, and error performance.

IEEE 802.16m system shall provide powerful and efficient security mechanism to protect the network, system, and user.