

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Recommendations Approved By The Advisory
Committee For The 2007 World
Radiocommunication Conference

IB Docket No. 04-286

Comments of WiMAX Forum

The WiMAX Forum[®] is the world's leading organization promoting global standardization for, and adoption of, metro-scale wireless broadband networks using the IEEE 802.16 and ETSI HiperMAN wireless MAN specifications. The WiMAX Forum's goal is to accelerate the introduction of these devices into the marketplace. WiMAX Forum Certified[™] products will be fully interoperable and support metropolitan broadband fixed, nomadic and mobile applications. Collaboratively, the WiMAX Forum is pursuing programs to assure certification and interoperability of mobile WiMAX[™] products, global roaming, interworking to complement existing voice networks, development of applications and services optimized for WiMAX, and the promotion of WiMAX products worldwide.

The WiMAX Forum appreciates the opportunity to provide comments on the recommendations from the FCC's WRC Advisory Committee ("WAC") on the United States' proposals to WRC-07.¹ The WiMAX Forum has reviewed the WAC's recommended proposals, and wishes to comment on two proposals where agreement was

¹ See FCC Seeks Comment On Recommendations Approved By The Advisory Committee For The 2007 World Radiocommunication Conference, Public Notice, IB Docket No. 04-286, DA 07-26, (Jan. 9, 2007) ("WAC Public Notice").

not reached within the WAC. Specifically, the Forum provides comments herein on Document WAC/149(13.12.06), addressing the 3650-3700 MHz band under WRC-07 agenda item 1.4 and Document WAC/148(13.12.06), addressing the 698-806 MHz band and the bands currently identified for IMT-2000, also under WRC-07 agenda item 1.4. WiMAX Forum interests lie primarily with the frequency bands where WiMAX certification profiles have been adopted by the WiMAX Forum—the 3650-3700 MHz band and the 2500-2690 MHz band (one of the bands currently identified for IMT-2000)—and in bands that show promise for future WiMAX systems (698-806 MHz). These are primary bands for WiMAX deployments in the United States and around the world, and the WiMAX Forum has a clear interest in US proposals to WRC-07 on this topic.

With respect to the 3650-3700 MHz band, the main issue is whether the United States should oppose identification of this sub-band in the international Radio Regulations for advanced commercial wireless services (e.g., IMT-2000) under WRC agenda item 1.4. The satellite community (in “View A”)² proposes that the United States oppose such identification, and present the justification that satellite downlink services would receive interference or otherwise be constrained. In contrast, the terrestrial community urges the United States *not* to oppose such identification, particularly *not* for the reason of avoiding harm to satellite downlinks in this band given the actions the Commission has taken to significantly limit satellite use of the band in the United States.

² See *id.* at Pgs. 36-37.

Instead, the terrestrial community (in “View B”)³ urges the United States not to take a position on identification of this band.

The WiMAX Forum supports the views presented by the terrestrial community in View B. The Commission, when re-allocating the 3650-3700 MHz band from Government to non-Government use, created primary non-Government fixed and mobile service allocations.⁴ The Commission, in related dockets, adopted service rules with the intent of responding “to the needs expressed by a growing number of entrepreneurial wireless internet service providers (WISPs), that currently bring broadband services to consumers particularly those living in rural areas in the United States.”⁵ Further, the Commission highlighted that the band “will provide an opportunity for the introduction of a variety of new wireless broadband services and technologies, such as WiMAX.”⁶ In the same proceedings, the Commission significantly limited fixed-satellite service use of the band, by not allowing any new primary earth station applications and grandfathering the limited number of existing satellite earth stations.⁷

³ See *id.* at Pgs. 38-39. The View B proponents do not propose identifying the band, because of the type of terrestrial use of the band in the US, e.g., low EIRP limits.

⁴ See Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band; The 4.9 GHz Band Transferred from Federal Government use, *First Report and Order and Second Notice of Proposed Rulemaking*, ET Docket No. 98-237, WT Docket 00-32, 15 FCC Rcd 20488 (re. Oct. 24, 2000).

⁵ Wireless Operations in the 3650-3700 MHz Band; Rules for Wireless Broadband Services in the 3650-3700 MHz Band; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band; Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band, *Report and Order and Memorandum Opinion and Order*, ET Docket No. 04-151, WT Docket No. 05-96, ET Docket 02-380, 20 FCC Rcd 6502 (rel. Mar. 16, 2005), at ¶ 2.

⁶ *Id.* at ¶ 2.

⁷ *Id.* at ¶ 7.

As the terrestrial community describes in View B, it would damage potential terrestrial use of this band elsewhere in the world if the US opposed identification of this band in order to protect the limited satellite use, as many countries look to the United States for leadership on spectrum management. US manufacturers, service providers and broadband consumers would all benefit from economies of scale if other countries implement similar services in 3650-3700 MHz. Further, such an action would be conspicuously inconsistent with the Commission's domestic intentions and the domestic usage of the band.

With respect to the other issue, how to identify spectrum for advanced commercial wireless applications such as IMT-2000 under WRC agenda item 1.4, there are again two opposing views, this time from overlapping segments of the wireless industry. Currently, a number of frequency bands—806-960, 1710-2025, 2110-2200, and 2500-2690 MHz—are identified by footnote to the international Table of Frequency Allocations for use by International Mobile Telecommunications-2000 (“IMT-2000”).⁸ IMT-2000 has been defined as the set of radio interface technologies contained in Recommendation ITU-R M.1457. While the mobile wireless industry is ever-evolving with new and more advanced technologies becoming available, it is worth noting that a new radio interface has not been added to Recommendation ITU-R M.1457 since 1999, although the existing five IMT-2000 radio interfaces have been updated. Nonetheless, the ITU community, recognizing the changing nature of the mobile wireless industry, adopted WRC-07 agenda item 1.4 which looks at spectrum for the future evolution of

⁸ International Telecommunication Union Radio Regulations, Edition 2004, Nos. 5.317A, 5.384A, and 5.388 (footnotes to the International Table of Frequency Allocations).

IMT-2000 and systems beyond IMT-2000. At this point in time, it is unclear what systems/technologies will ultimately be included in “systems beyond IMT-2000.”

View A proposes that the 698-806 MHz band, and the bands currently identified for IMT-2000, should be identified for “IMT”, which is defined as both “IMT-2000” and “IMT-Advanced.”⁹ View B proposes that 698-806 MHz, and the bands currently identified for IMT-2000, should all be identified for “IMT and other broadband wireless access systems.” Thus, IMT-2000, IMT-Advanced and broadband wireless access systems would have equal access to the identified spectrum. Similar to Recommendation ITU-R M.1457 for IMT-2000, the radio access technologies for broadband wireless access systems have been captured in ITU-R Recommendations¹⁰, and include WiMAX Forum Certified equipment.

The WiMAX Forum supports View B, as it helps to ensure that WiMAX technology has equal access to the identified bands as the other technologies that are currently part of IMT-2000. Including new technologies like WiMAX in these identifications helps the international regulatory regime keep pace with innovations in the mobile wireless industry. Further, such an approach of broadening the identifications to

⁹ IMT-Advanced is the terminology developed within ITU-R Working Party 8F to basically refer to “systems beyond IMT-2000.” Similar to that term, the systems/technologies that will make up IMT-Advanced are currently not specified.

¹⁰ Specifically, in Recommendation ITU-R F.1763 for fixed applications and Recommendation ITU-R M.[8A/BWA] for mobile and nomadic applications.

include these other technologies is consistent with technology neutrality, while still providing globally harmonized spectrum for advanced commercial wireless applications.

Respectfully Submitted
WiMAX Forum

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The WiMAX Forum™ is an organization of more than 400 operators, communications component and equipment companies. The WiMAX Forum's charter is to promote and certify the compatibility and interoperability of broadband wireless access equipment that conforms to the Institute for Electrical and Electronics Engineers (IEEE) 802.16 and ETSI HiperMAN standards. The WiMAX Forum was established to help remove barriers to wide-scale adoption of Broadband Wireless Access (BWA) technology, since a standard alone is not enough to incite mass adoption of a technology.