



19 October 2006

*For more information, contact:  
Chair, Regulatory Working Group  
rwg-chair@wimaxforum.org*

## **WiMAX Forum™ Response to Industry Canada's Proposed Spectrum Utilization Policy, Technical and Licensing Requirements for Wireless Broadband Services (WBS) in the Band 3650-3700 MHz**

### **Notice DGTP-006-06**

**August 2006**

#### **1 Introduction**

The WiMAX Forum™ welcomes the opportunity to respond to Industry Canada's consultation paper (DGTP-006-06, August 2006) on the use of the 3650 to 3700 MHz frequency band. The WiMAX Forum™ representing both operators and vendors of the broadband wireless service and equipment and working closely with regulators promotes the use of WiMAX to provide wireless broadband services to both the business and residential communities. The scope of having the 3650 to 3700 MHz band creates the opportunity to foster the use of WiMAX to provide high bandwidth services within a frequency band globally accepted for WBS. The WiMAX Forum™ supports the regional and global harmonization of frequency bands to enable the economies of scale to lower the cost of providing wireless broadband services, hence we agree that general harmonization with the US would be in the best interest of Canadians.

#### **2 Industry Canada questions and WiMAX Forum™ responses**

##### *Section 5.1 Point to Point Systems*

*The Department proposes to either grandfather or displace existing point-to-point systems in the band 3650-3700 MHz. Further, extensions and/or expansions of grandfathered systems on a case-by-case basis, outside of urban areas, may be permitted.*

*Comments are invited on whether point-to-point systems in the band 3650-3700 MHz should be grandfathered or displaced and what conditions should apply in either case.*

*The WiMAX Forum™ recommendation to the Department is to displace the existing point-to-point systems within a one-year timeframe after the new licenses are issued.*

## *5.2 Fixed-satellite Service*

*The Department proposes that FSS receive earth stations located at Weir, Quebec be grandfathered. Operators wishing to establish wireless access systems within a 150 km radius of these earth stations would be required to coordinate with the earth station operators.*

*The Department further proposes that any future FSS receive earth stations in the band 3650-3700 MHz operate on a secondary basis.*

*Comments are invited on this proposal.*

The WiMAX Forum™ agrees with the Department's proposal to grandfather the FSS receive earth stations and require wireless access operators to coordinate with the earth station operators. We also welcome the proposal that any future FSS receive earth stations in the band 3650-3700 MHz will operate on a secondary basis.

## *6. Applications in Canada*

*The Department seeks comments on types of wireless broadband applications which may be deployed in Canada in the near future.*

Based on a WiMAX deployment, the types of applications for which the band may be used, include (but are not limited to) are;

1. Internet access
2. Backhaul
3. Personal Broadband

## *7. Licensing Approach*

*The Department is of the view that the issuance of spectrum licences, as described above, would be the appropriate licensing mechanism for this service. Comments are invited on this proposal.*

The WiMAX Forum™ agrees with the spectrum licensing method proposed by the Department.

## *7.1 Service Areas*

*Comments are sought on the proposal to use Tier 4 service areas for the licensing of the bands 3650-3700 MHz.*

*The Department invites alternative proposals on service areas, including rationale, where a Tier 4 service area is not suitable.*

The WiMAX Forum™ recommends to the Department that the service areas are aligned with that used for the 3475 to 3650 MHz frequency bands

## *7.2 Spectrum Structure and Licensing Options*

*Comments are invited on the proposed options for exclusive and/or non-exclusive licensing and any other options not outlined in the table, with supporting rationale. Any option could be applied to all or part of the spectrum. In the case of urban/rural service areas, the Department seeks the rationale and criteria for defining urban and rural.*

*It should be noted that the licensing process and requirement for contention-based protocols will be determined based on the option selected.*

The WiMAX Forum™ recommends to the Department that the licenses should be for two blocks, one being 20 MHz and the other being 30 MHz and auctioned on an exclusive basis for both rural and urban areas, except for very rural (service areas with populations less than 30,000) that should be licensed on a first come, first served basis (FCFS). Permitting licensees to acquire spectrum blocks of different sizes will allow various business models to be supported.

## *7.3 Contention-based Protocols*

*Comments are invited on the proposed definition as well as the Department's proposal to require the use of contention-based protocols for non-exclusively licensed spectrum in the band 3650-3700 MHz.*

*Alternative proposals are welcome and should include details as to how these proposals address the potential for interference between non-exclusive licensees.*

*The Department invites comments on the requirement to enter station and contact information into a publicly accessible database.*

Since the WiMAX Forum™ recommends the use of exclusive licensing we do not recommend to the Department to use contention-based protocols. Since the WiMAX Forum™ believes the band should be technology neutral, the use of contention based protocols between different airlink technologies will reduce the quality of service that an operator can offer and influence the technology choice.

## *8. Licence Term*

*Comments are invited on the proposed licence term.*

The WiMAX Forum™ has no comment on the terms of the license.

### *8.1 Licence Fees*

*The Department requests comments on the proposed licence fee of \$0.0042 per 50 MHz per population.*

The WiMAX Forum™ has no comment.

### *8.2 Eligibility*

*The Department requests comments on the proposal for open eligibility.*

The WiMAX Forum™ agrees with the Department's proposal for open eligibility.

### *8.3 Spectrum Aggregation Limit*

*The Department invites comments on whether it should impose in-band or out-of band spectrum aggregation limits on licensees in the event a competitive process is adopted, and the rationale for such limits.*

The WiMAX Forum™ recommends to the Department that no aggregation limits should be imposed.

### *8.4 Departmental Service Standards*

*Please provide comments on whether this service standard is appropriate.*

The WiMAX Forum™ views the service standard of four weeks to issue a license acceptable.

### *9. Technical Considerations*

*The Department invites comment on the proposed technical rules. In particular, will the proposed out-of-band emission limits provide sufficient protection to services operating in adjacent spectrum, including FSS earth stations operating in the conventional C-band (3700-4200 MHz)? How would this compare to the potential impact of in-band WBS emissions below 3700 MHz on FSS receivers?*

The WiMAX Forum™ supports the proposed RSS and SRSP provisions, however we would welcome the opportunity to contribute the new specifications. The technical considerations should include transmitter and receiver characteristics. The receiver characteristics should include the receiver maximum input levels and selectivity of the existing FSSs and commercially available FSs. Consideration should also be given to sharing of FSS and FS using the CCI and ACI parameters.

## **About the WiMAX Forum™**

The WiMAX Forum™ is an industry-led, non-profit corporation formed to promote and certify the compatibility and interoperability of broadband wireless products using the IEEE 802.16 and ETSI HiperMAN wireless MAN specifications. The 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 and Portable Applications. For more information about the WiMAX Forum™ and its activities, please visit [www.WiMAXForum.org](http://www.WiMAXForum.org)