



October 27th, 2006

Sent by email (wireless@ic.gc.ca)
And sent by messenger

Director
Spectrum and Radio Policy
Telecommunications Policy Branch
Industry Canada
1604A, 16th Floor
300 Slater Street
Ottawa, Ontario
K1A 0C8

Comments in Response to *Canada Gazette*, Part I, August 2006, Notice No. DGTP-006-06, Proposed Spectrum Utilization Policy, Technical and Licensing Requirements for Wireless Broadband Services (WBS) in the Band 3650-3700 MHz

Dear Sirs:

Attached please find comments respectfully submitted by TeraGo Networks Inc. ("TeraGo") in respect of *Canada Gazette*, Part I, August 2006, Notice No. DGTP-006-06, Proposed Spectrum Utilization Policy, Technical and Licensing Requirements for Wireless Broadband Services (WBS) in the Band 3650-3700 MHz.

The overarching thrust of TeraGo's comments focus on the need to release the spectrum covered by this notice as soon as possible, and in a way that will advance Canada's spectrum policies and bring the most benefits to Canadian customers.

We trust TeraGo's comments will assist Industry Canada adopt the best policies and requirements for industry participants and for customers alike.

Please note that the format of the attached comments is Microsoft Word, MS Office 2003.

Yours very truly,
TeraGo Networks Inc.

Bryan Boyd
President & CEO

www.terago.ca

TeraGo Networks Inc., 55 Commerce Valley Drive, Suite 710, Thornhill, Ontario L3T 7V9
Tel: 1-866-TeraGo-1 (1-866-837-2461) Fax: (905) 707-6212

**Comments in Response to *Canada Gazette*, Part I,
August 2006, Notice No. DGTP-006-06**

**Proposed Spectrum Utilization Policy, Technical and
Licensing Requirements for Wireless Broadband Services
(WBS) in the Band 3650-3700 MHz**

Terago Networks Inc.

October 27th, 2006

1.0 Introduction

The following comments are respectfully submitted by Terago Networks Inc. ("Terago") in response to Notice No. DGTP-006-06, Proposed Spectrum Utilization Policy, Technical and Licensing Requirements for Wireless Broadband Services (WBS) in the Band 3650-3700 MHz.

Terago is a leading wireless broadband data communications provider to businesses and other organizations in Canada. Terago owns and manages its network using state-of-the-art, innovative broadband technologies to provide cost-effective, high-performance Internet access, data services, web hosting, e-mail services and other telecommunications solutions. Terago offers services in British Columbia, Alberta, Manitoba, Ontario and Quebec. Terago's corporate headquarters is in Toronto, and the company has additional operations in Calgary. More information about Terago is available on the company's website (www.terago.ca).

Terago is an important player in the Canadian telecommunications sector, providing tangible benefits to Canadian customers through competitive service offerings and furthering the objectives of Canada's telecommunications policies. Terago holds 70 spectrum licenses issued by Industry Canada in the 24 and 38 GHz Bands, and also utilizes unlicensed spectrum in the 2.4 and 5 GHz bands. Terago is very proud of the fact that it has put spectrum licenses to work for Canadians.

Terago, as a significant user of radio spectrum, depends on the continued availability of cost-effective radio spectrum, as well as competition-friendly policies, and efficient technical and licensing protocols and provisions. Terago has consistently taken a strong position in comments to Industry Canada and other forums that radio spectrum must be made available on reasonable terms and conditions to operators (like Terago) that actually put spectrum to work to provide valuable and innovative services for Canadian customers.

Terago welcomes the opportunity to provide Industry Canada its comments on the issues raised in Notice No. DBTP-006-06 (the "notice"). Terago's comments, set forth below, are founded in a number of key principles, including the maintenance of a level playing field, expeditious release of spectrum to willing and able licensees, and a strong bias against allowing the hoarding and concentration of spectrum. Industry Canada's priorities must include facilitating a wireless telecommunications industry that is fair, efficient, and competitive. Industry Canada should be very wary of allowing the warehousing of spectrum by operators that have little interest in using it.

Please note that Terago has focused its comments on issues of greatest concern to the company and the failure to comment on any issue or issues should not be taken as endorsement, tacit agreement or acquiescence with such issue or issues.

2.0 Comments on Notice No. DBTP-006-06

2.1 Section 6 of the Notice

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

Terago submits that the types of wireless broadband applications that will be deployed in the near future are those that will find the most receptive markets and that will bring the greatest benefits to Canadian businesses and consumers, and will include broadband data and internet services, on both public and private systems.

Industry Canada should promote policies and requirements that foster the development of alternative facilities-based services to ensure the delivery of innovative broadband and internet-based services that benefit Canadian businesses, Canadian consumers, and the Canadian economy as a whole.

2.2 Section 7 of the Notice

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

Terago agrees with the proposal made in section 7 of the notice.

2.2.1 Section 7.1 of the Notice

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.

Terago submits that the proposal made in section 7 of the notice respecting the use of Tier 4 service areas is appropriate.

2.2.2 Section 7.2 of the Notice

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.

Terago submits that it would be most appropriate and expedient for Industry Canada to issue non-exclusive spectrum licenses. The mechanism that should be adopted is to limit the issuance of such non-exclusive licences to three operators. This mechanism will alleviate any requirement for interference mitigation measures, which is important because to mandate interference mitigation measures would necessitate deploying unproven if not unique technology that would almost certainly be operationally cumbersome and which would force unnecessary and unwarranted inefficiencies to operators using the spectrum. This would result in negative service and delivery issues to the disadvantage of carriers using the spectrum to provide services in the marketplace.

Terago is of the view that payment of an annual fee would be appropriate as it would ensure that licenses are acquired only by interested parties.

Terago submits, in the alternative, that if Industry Canada takes the view that an auction of this spectrum is necessary and in the public interest, such auction should be limited to new entrants, specifically excluding parties that are licensees of 2.3GHz or 3.5GHz spectrum. Further, Terago submits that it is clear that only parties meeting currently in force foreign ownership and control limits prior to the auction should be permitted to participate.

2.2.3 Section 7.3 of the Notice

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

Terago is of the strong view that it would not be desirable or in the public interest to require the use of contention-based protocols for non-exclusively-licensed spectrum, particularly if Terago's proposal of limiting participation is adopted. Mandating such measures would cause operational problems that would disadvantage operators using such spectrum through the use of unproven technology unique to the Canadian market.

2.3 Section 8 of the Notice

Comments are invited on the proposed licence term.

Terago respectfully submits that the licence term should be 10 years, renewable thereafter.

2.3.1 Section 8.1 of the Notice

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

Terago is of the view that the licence fee proposed in the notice is appropriate if the number of licenses issued is limited to no more than three in each area.

2.3.2 Section 8.2 of the Notice

The Department requests comments on the proposal for open eligibility.

Terago submits that to be eligible, participants must meet Canadian current ownership and control tests prior to initiation. A level playing field for all participants must be ensured.

2.3.3 Section 8.3 of the Notice

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.

As noted in the comments above, for reasons of fair and reasonable competition related to spectrum aggregation and warehousing, Terago is of the strong view that band 3650-3700 MHz licensing requirements must restrict participation from the current 2.3 and 3.5 GHz license holders.

2.4 Other comments

Terago appreciates the opportunity to provide comments on the issues raised in the notice.

In conclusion, Terago submits that it is in the public interest, and clearly in the interest of Canadian customers and the Canadian telecommunications industry, to release the band 3650-3700 MHz spectrum as soon as possible. Further, Terago is of the view that the public interest would not be served to delay the release of the spectrum until decisions are taken at some point in the future in the United States. Coordination with the United States can take place over time. Technology and equipment is presently available, including certain equipment from Canadian suppliers, which meets international specifications and which should be adopted and implemented as soon as possible. Canada should not wait for potential future developments to occur that could result in the adoption of new technology standards. Canada would be better served if the spectrum is released now.

All of which is respectfully submitted.