



Gazette Notice DGTP-003-08

Consultation on the Possible Use of the Extended-Ku Spectrum Bands for Direct-to-Home (DTH) Satellite Broadcasting Services

Submission by TeraGo Networks Inc.

Introduction

TeraGo Networks Inc. (“TeraGo”) welcomes the opportunity to make this submission in response to Industry Canada’s invitation in Gazette Notice DGTP-003-08 – *Consultation on the Possible Use of the Extended-Ku Spectrum Bands for Direct-to-Home (DTH) Satellite Broadcasting Services* (the “Consultation”). We have set forth below our responses to certain aspects of the Consultation.

1. (a) *The Department seeks comments as to whether the spectrum utilization policy of the Ku frequency band 10.7-11.7 GHz should be changed to accommodate the provisioning of DTH services and, if so, what the designated use for each of the sub-bands should be.*

(b) *More specifically, should the designation be as requested in Section 3.1 of the Consultation, namely that the extended-Ku bands 10.95-11.2 GHz and 11.45-11.7 GHz be designated only to the fixed-satellite service, and the bands 10.7-10.95 GHz and 11.2-11.45 GHz continue to be designated to the fixed-satellite and fixed services under the current policy stipulations?*

A. TeraGo does not support the segmentation proposal set out in the Consultation given its inequitable consequences. Under the current proposal, fixed service (FS) operators like TeraGo would be prevented from using half of the 11 GHz band (10.95-11.2 GHz and 11.45-11.7 GHz) and would need to share the remaining band with fixed-satellite service (FSS) operators.

- B. Available spectrum bands to support TeraGo's future business plans and capacity requirements are very limited. As the Department is aware, due to the congestion developing in the 18 GHz band, TeraGo began deploying 11 GHz spectrum in its network a few years ago and incurred significant costs to do so. This band, given its favourable rain propagation, is widely deployed in TeraGo's network today.
 - C. Detailed spectrum utilization policy reviews conducted by the Department are intended to provide a stable regulatory environment in Canada. These policies allow FS operators (like TeraGo) and equipment vendors to establish commercial relationships and make significant investments in networks and equipment design. The proposed changes set out in the Consultation undermine that regulatory and commercial stability.
 - D. Maintaining co-primary status between FS and FSS operators in the extended-Ku bands would be consistent and keep harmonization with the United States (see Code of Federal Regulations, Title 47, Part 101, s. 101.147).
 - E. TeraGo submits that alternative spectrum bands are available to FSS operators. In addition, alternative opportunities exist for FSS operators. An example of this includes the award to Ciel, a Canadian satellite service provider, of 6 new Approvals in Principle by Industry Canada to develop spectrum at several orbital locations. Ciel is currently seeking interest from customers interested in utilizing any of its satellite capacity through a Call for Interest.
2. ***Comments are sought as to the disposition of the current fixed service licensees in the extended-Ku bands. Should they be permitted to continue operating in these bands and, if so, under what conditions?***
- F. Existing fixed services deployed in these bands, including the broadband and data connectivity services provided by TeraGo, should be "grandfathered" and permitted to continue operating in such bands. TeraGo has many fixed stations within the affected band and would incur significant capital and non-capital costs if any such stations needed displacement, including costs related to network planning, engineering, network downtime and licensing fees, with no corresponding benefit. In addition, any such displacement would

negatively impact our business customers that rely on TeraGo services for their commercial operations.

- G. In the event that the Department elects to amend its policy to set aside the extended-Ku bands for FSS use on an exclusive basis, stakeholders should be provided a further opportunity to comment on the proposed conditions of licence. At a minimum, existing fixed stations should only be displaced on an as-needed basis. The requesting FSS should be required to prove to the applicable FS the necessity to displace fixed stations through an acceptable frequency coordination analysis. Any disputes between the relevant parties can then be submitted to arbitration. Any applicable transitional costs incurred by the FS should be at the expense of the requesting DTH service provider.
3. *Comments are sought as to whether the future capacity requirements of the fixed service can be accommodated in other fixed service allocations at 6, 15 and 18 GHz and the remaining portions of the 11 GHz Ku band. Are these bands suitable and is there sufficient spectrum to accommodate any potentially displaced fixed service systems from the extended-Ku bands?*
- H. TeraGo expects continued significant deployment in the 11 and 18 GHz spectrum bands in the near future to support its business growth plans. In addition, TeraGo expects significant growth in requirements for backhaul services as a result of network roll-outs by AWS licensees. Restricting (or reducing) the available spectrum options may result in constrained roll-out of broadband services that will benefit Canadians.
- I. With the release of Canada Gazette Notice DGTP-004-08, which outlines proposed changes to Industry Canada's 15 GHz spectrum utilization policy in order to accommodate TCDL systems in a portion of the band 14.5-15.35, and the current moratorium on licensing in the bands 14.66-14.82 GHz and 15.135-15.295 GHz, this limits FS users from operating in the 15 GHz band.

Conclusion

- J. The negative consequences of implementing the proposals set out in the Consultation far outweigh the benefits. The proposal to designate the extended-Ku band for exclusive satellite use would represent a major financial hardship for FS operators like TeraGo. TeraGo has incurred significant costs in developing and deploying 11 GHz spectrum in its network. This spectrum remains the only viable band which supports favourable rain propagation for “long haul hops”, allowing TeraGo to provide broadband telecommunications services to Canadian businesses (including businesses in underserved Canadian communities).
- K. TeraGo appreciates the opportunity to provide its comments in response to the Consultation. Should the Department move forward with the proposals set out in the Consultation, then stakeholders should be provided a further opportunity to comment on the proposed conditions of licence given the devastating effects that such a decision would have on TeraGo and other existing licensees.

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