



## **Gazette Notice DGTP-002-10**

### ***Consultation on the Use of the Band 25.25-28.35 GHz***

#### **Submission by TeraGo Networks Inc.**

##### ***A. Introduction***

1. TeraGo Networks Inc. (“TeraGo”) welcomes the opportunity to make this submission in response to Industry Canada’s invitation in Gazette Notice DGTP-002-10 – *Consultation on the Use of the Band 25.25-28.35 GHz* (the “Consultation”). Capitalized terms used herein but not otherwise defined shall have the meanings ascribed thereto in the Consultation.
2. TeraGo is generally supportive of the proposals set forth in the Consultation. We applaud the Department’s decision in opening the lower and upper portions of the band 25.25-28.35 GHz, specifically 25.25-26.5 GHz and 27.5-28.35 GHz (the “Spectrum”), for fixed systems.
3. In particular, we endorse the Department’s decision in removing the reservation on the band 25.35-27.35 GHz, as originally announced in the paper entitled *Local Multipoint Communication Systems (LMCS) in the 28 GHz Range: Policy, Authorization Procedures and Evaluation Criteria*, as well as the intention to make available the 25.25-25.35 GHz band that was not previously identified for use.
4. The Spectrum will ensure that licensees have access to spectrum resources for deployment of point-to-point and point-to-multipoint systems to support customer access, backhaul and other applications.
5. We have set forth below our responses to certain aspects of the Consultation.

**B. *First-Come, First-Served (FCFS)***

6. TeraGo supports the Department's decision to make the Spectrum available for licensing on a first-come, first-served basis where demand does not exceed supply.

**C. *Spectrum Structure – Band Plan***

7. In the 25.25-26.5 GHz range, TeraGo fully supports the adoption of Option 1 in the Consultation so that operators can take advantage of existing equipment availability. TeraGo confirms that there is existing equipment available to it and intends to utilize this Spectrum for: (i) point-to-point and point-to-multipoint deployments in the time division duplex (TDD) channels (28 x 28 MHz) set forth in Option 1; and (ii) point-to-point deployments in the frequency division duplex (FDD) channels (six paired channels with a duplex spacing of 1008 MHz) set forth in Option 1. We do not support Option 2 in the 25.25-26.5 GHz range as we are not aware of any existing equipment that is operational in FDD with the proposed duplex spacing of 756 MHz.
8. In the 27.5-28.35 GHz range, we support aligning with the U.S. band plan of 25 and 50 MHz channels that can be used for TDD and FDD operations.
9. TeraGo submits that preference should be given to point-to-point systems in FDD allocations and point-to-multipoint and point-to-point systems in TDD operations. The rationale for this position is that TeraGo believes that there will be greater demand in deploying point-to-point systems in FDD operations and point-to-multipoint systems in TDD operations.

**D. *Spectrum Access***

10. In general, TeraGo supports the spectrum access principles set forth in the Consultation. These principles should help ensure that the Spectrum ends up in the hands of operators such as TeraGo that are ready to deploy in such band immediately. This Spectrum will be utilized by TeraGo to provide carrier-grade wireless broadband and data services to Canadian businesses and public sector organizations, as well as Ethernet-based backhaul services to Canadian wireless carriers, and for our own network needs.

**E. Licensing**

11. In the Consultation, the Department sets forth two possible approaches for licensing: (i) “Spectrum Licensing”; and (ii) “Radiocommunication Station Licensing”. In addition, the Consultation proposes that, for spectrum licensees, the service area be user-defined whereby licensees would be granted spectrum licence authority to use specific frequencies within user-defined service areas. Service area boundaries would be clearly defined by using standard geographical coordinates or other technically verifiable means (*e.g.* 25 km radius of specific latitude/longitude coordinates).
12. TeraGo supports the spectrum licensing approach for this Spectrum and supports the concept of user-defined service areas.

**F. Licence Fees**

13. TeraGo supports the Department’s decision in having the same fee of \$0.00003205 per MHz per population (with a minimum of \$150 per licence) apply to first-come, first serve licences in the unassigned spectrum in the 24 and 38 GHz bands and in the 28 GHz LMCS spectrum. This fee model would support our position that the Spectrum should be licensed based on the spectrum licensing approach outlined in the Consultation.
14. The Department intends on charging licence fees on a per radio link basis if site based licensing is adopted, and that these fees would be based on telephone channel equivalencies in accordance with Section 65 of the *Radiocommunication Regulations*. TeraGo does not support this fee structure for the following reasons: (i) it penalizes the deployment of radio systems with higher spectral efficiencies; and (ii) it would result in a great (and unnecessary) administrative burden being placed on licensees and the Department. TeraGo submits that if the Department decides to implement a radio licence fee model for fixed radio links with site based licensing, against TeraGo’s recommendations, then such licence fee model should be developed based on the amount of RF bandwidth being utilized per frequency, as opposed to the number of channels.

**G. Conclusion**

15. With this Consultation, together with the responses set forth herein, Industry Canada will encourage spectrum use by offering the Spectrum to licensees that can utilize it and discourage “hoarding” of this valuable resource.
16. TeraGo is proud of its ability to offer economical, highly reliable and scalable wireless broadband services to Canadian businesses and public institutions, as well as wireless backhaul services for Canadian wireless new entrants, as an alternative to the wireline services offered by the incumbent local exchange carriers. In our view, licensees such as TeraGo that have contributed significant capital to utilize 24 and 38 GHz spectrum should have access to scarce spectrum resources to continue providing choice and competition to Canadians with respect to their broadband needs.

*July 26, 2010*