NTRC Commonwealth of Dominica

RESPONSE TO CONSULTATION PAPER ON RECOMMENDATION TO AMEND THE LICENCE CLASSIFICATION NOTICE TO INCLUDE NON-TERRESTRIAL NETWORKS AND SERVICES LICENCE AND THE TELECOMMUNICATIONS (FEES) REGULATIONS OF THE ECTEL MEMBER STATES FOR POINT-TO-MULTIPOINT WIRELESS SERVICES.

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1.4.2 Scalability and Reconfigurability

"*In contrast to terrestrial alternatives, they can be deployed quickly and inexpensively, enabling rapid network build-out. Such networks can easily be reconfigured to match changing user demands.*"

The NTRC is of the view that ECTEL considers Earth Stations as the entirety of the satellite network. To make the argument that Nonterrestrial Networks can be deployed quickly and inexpensively does not take into account all of the cost and expertise that goes into launching the satellites and keeping them in orbit. The framing of this seems to be misleading.

1.5 Broadband Internet and Direct to Device Services

1.5.2 Direct to Device (D2D) connections are offered by both NGSO and GSO technologies, not just NGSO.

5.0 RECOMENDATIONS

5.2 1. The new class licence will be designated as Non-Terrestrial Networks and Services ('NNS') licence. The proposed NNS licence will be granted to NTN operators that wish to provide broadband Internet service *and D2D services directly to customers, in the ECTEL Member States.*

NTRC Dominica believes that this categorization is too limited. There are IOT satellite service that utilize very little bandwidth to provide low data connectivity. If they are considered in the same category as the proposed NNS licence the fees being charged would be prohibitive.

Table 5. Remove the phrase *except that the minimum fee shall not be less than XCD 5,000.00. This minimum requirement is not commensurate with the level of deployment and only serves to rais the barrier of entry for new and small entrants in the market. It's creating a disproportionately high regulatory fee for new entrants who would initially have a very low market share.*

Table 6. – should be bandwidth less than 10 MHz or "<" not ">".

Table 6. How will the gross profits be communicated to the NTRC? Is it a number of consumers and average cost of service package? Or the profits directly? How can the NTRC verify the information? Do NTN pay takes in-country taxes on the services they provide?

Omission: There is no discussion of ITU international requirements: do NTN still need to seek landing rights? Do NTN need to have finalized coordination with other satellite systems etc? Do NTN need to follow ITU technical rules for the provision of service? (Power limits, interference prevention, etc?) There is an enforcement question missing around satellite operators meeting ITU requirements. It should be in their license.

Spectrum Pricing:

There ought to be a more proportional way to calculate Spectrum Fees. The available bandwidth of Starlink satellite to user terminals is 2000MHz in the Ku-band and 500 MHz from the terminal to the satellite,
ref. http://www.satmagazine.com/story.php?number=1026762698. On another source the Starlink User Terminals uplink is 14.0-14.5 GHz and downlink 10.7 - 12.7 Ghz transmissions. https://www.reddit.com/r/Starlink/comments/1enl3ep/need_the_frequency_of_the_starlink_business/#:~:text=No%20frequency%20ranges%20are%20actually,MHz%20down%2C%2062.5%20MHz%20up.

The Starlink makes use of three different radio frequencies for communication. The National Telecommunications and Information Administration (NTIA) states that Starlink is authorised to use the Ku-band (10.7 GHz-14.5 GHz), the Ka-band (17.3-30.0 GHz) as well as the E-band (37.5-51.4 GHz) [12]. The Ku-band is used for uplink and downlink between the user antenna and the satellite. Whilst the Ka-band is used for uplink and downlink between satellite and ground station [13].

All these sources seem to suggest that the bandwidth used by Starlink is well over the point to multipoint wireless service above 100 MHz. Therefore, for shared spectrum Starlink would have to pay $60,000.00 EC. Also since this is not LEO specific geostationary satellite systems who use spectrum in the GHz band would have to meet these fees as well. Aren't these bands supposed to be shared bands? This is for a market where a 100 Starlink customers is very unlikely under

normal circumstances (current circumstances). Maybe after devastation by a hurricane you might have many more customers but that is when you would want the service as accessible as possible.

Keeping local packets local.

The license should include the obligation that any packets exchanged between two local stations can be routed thru a terrestrial gateway ‘if and only if’ that gateway is local.