



DEPARTMENT OF INFORMATION AND COMMUNICATION TECHNOLOGY

OFFICE OF THE SECRETARY

12th September 2023

Mr. Gibson Tito,
Manager, Licensing, and Business Relations
National Information and Communications Authority (NICTA)
P O Box 8444
BOROKO 111
National Capital District

RE: Public Consultation Discussion Paper - LEO/MEO Satellite Services and PNG

Dear Mr. Tito,

Thank you for the opportunity to comment on this important issue for PNG.

The Department of Information and Communication Technology (DICT) supports the introduction of LEO satellite services into PNG and views these services as an important opportunity to improve access to communications services for many of our citizens and businesses. We see their introduction as being highly aligned with the key objectives of our nation's MDTP IV, including reaching 70% internet penetration and improving the availability of services to 100% of our population by 2027. DICT also views LEO services as being pivotal enablers to our successful delivery of the Digital Government Program – as outlined in the Digital Government Act (2022).

More specifically, in response to NICTA's discussion paper questions, please see our responses below. Please also note that we have slightly re-ordered your questions - in order to make clearer our position on the various matters raised.

Question 4: Do you think that there should be some constraints on where LEO services should be permitted to be located in PNG, such as, for example, only in areas where telecommunications services are non-existent or are inadequate? Please give your reasons.

DICT believes there should be no constraints placed on where LEO services are permitted within PNG.

While arguments may be put to restrict LEO services to only areas where telecommunications services are non-existent or inadequate, however, we

believe that doing so would have at least four significant negative repercussions:

1. **It would unreasonably limit customer choice, for no obvious benefit.** To illustrate, for example, the LEO-based service, Starlink, is currently at least 3-4 times more expensive than existing services in PNG (\$US110/month vs. \$30 for a typical 'top tier' mobile subscription, or ADSL subscription). Hence, if a customer were to choose to subscribe to Starlink, it would be because they have such a clear and pressing need for the product, that they were willing to pay such as premium. Indeed, DICT sees itself in this position, as with planned the roll-out of our nation's Government Private Network (GPN), as prescribed under the Digital Government Act (2022), DICT can readily see that it would want to utilize the bandwidth speeds on offer from LEO services - in connecting many Government Agencies to the GPN - at all levels of Government - in many diverse regions (that are both within and outside current service areas).
2. **It would be unfairly restricting LEO satellite, compared to GEO satellite, and in doing so, it will cost the Government and the community a great deal.** For example, our preliminary analysis is that in order to deliver the bandwidth we require to connect numerous provincially based government buildings (to the GPN), is that LEO services can cut down our annual budget by around 70-90% (compared to GEO satellite services - serving the same buildings - with the same bandwidth). Suffice it to say, that DICT sees the introduction of LEO services as providing a very large budget cost-saving opportunity.
3. **LEO services are not an overt threat to PNG's mobile operator's continued growth - even inside their existing coverage areas, so there seems no good reason to restrict coverage on this basis.** In Australia, for example, a geographically unrestricted Starlink has quickly gathered around 120,000 customers, but nearly all of these have come from customers seeking fixed broadband services¹ (as opposed to mobile cellular services). In contrast, mobile cellular services have been unaffected in Australia and there has been no trend that suggests new Starlink customers are abandoning their mobile phone subscriptions to move to Starlink (as mobile services growth still grew 2% over the latest 2021-2022 reporting period²).
4. **Defining where existing telecommunications services are "non-existent or are inadequate" is a highly subjective and difficult criteria to objectively and precisely define.** For example, even in geographical areas that have reportedly good cellular coverage, there are in-evitable blackspots (caused by buildings, valleys, mountains etc), or areas of weaker coverage (towards the edge of cells) - that simply do

¹ <https://www.lightreading.com/satellite/as-users-leak-to-starlink-nbn-co-weighs-future-satellite-options/d/d-id/785180>

² <https://www.acma.gov.au/sites/default/files/2023-07/Trends%20and%20developments%20in%20telecommunications%202021-22.pdf>

not provide adequate data throughput speeds for something like the GPN.

Question 5: Irrespective of the answer to Question 4, should LEO services be structured and managed within the Universal Access and Service (UAS) Scheme administered by NICTA, or be eligible for inclusion in the UAS?

If there are no restrictions on where LEO services are permitted in PNG (as we suggest per Q4 above) then LEO service providers should financially contribute to the UAS fund, along the lines of all other licensed providers.

LEO services should be seen as eligible for inclusion in the UAS. Reaching the final 10%-20% of the PNG population via cellular services just seems operationally and commercially unviable for the foreseeable future, so LEO services should be seen as an ideal candidate to reach these customers.

Question 1: (a) Do you agree that providers of LEO satellite services in PNG should be licensed by NICTA under the Act, as other providers of network services are licensed? (b) If not, what other authorization arrangements, if any, should apply? (c) Would any form of exemption be appropriate, and under what circumstances?

DICT believes LEO satellite services in PNG should be licensed by NICTA under the Act. However, we note there is not currently a one-size-fits-all approach to licensing and that NICTA already makes numerous exemptions and modifications to its 'standard and special terms and conditions for many existing licenses in PNG. And, rightly so, as many ICT services are quite different in their delivery technology and business operating models, it makes sense to find the 'right balance' for each type of service. We acknowledge and commend NICTA for attempting to find this 'right balance' for LEO services through the issuance of this discussion paper.

DICT will leave it for LEO services providers to make their specific arguments here, but we would urge NICTA to ensure that it does not impose license conditions that un-necessarily lead to increased prices for end-users, and/or un-necessarily restrict their access to a full range of LEO retail services anywhere in PNG.

In particular, given LEO services are truly a global service delivery platform, and end-user terminals are generally self-installed and self-maintained, DICT believes NICTA should be particularly tolerant about the degree of local presence required and around any expectations that customer service and billing must be locally provided. Insisting on these, could lead to PNG-specific price increases, or prevent some LEO services from being offered entirely.

DICT believes NICTA also needs to be cognizant that LEO satellite services are a 'mass-market' retail product (unlike most GEO services) and therefore different arrangements may be necessary in terms of end-customers paying annual license fees to NICTA. Retail customers paying annual license fees to

NICTA does not seem practical, and we would encourage NICTA to come to direct arrangements with the LEO satellite providers themselves – as a possible alternative.

Question 2: Do you agree with NICTA's assessment of the current terms and conditions of individual network licenses that should apply to the provision of LEO satellite services? If not, what alternative arrangements should apply?

DICT will leave it for LEO services providers to make their specific arguments here.

Question 3: Do you agree with the addition of a specific section in the 2011 Rule to clarify the terms and conditions of license where an individual network licensee chooses to provide LEO satellite services, as set out in Attachment 1 to the Discussion Paper? If not, what changes would you recommend?

DICT broadly concurs with the proposed changes outlined in Attachment 1 to the discussion paper, but we will leave it for the mobile cellular and LEO services providers to make their own specific arguments here.

Sincerely,

**RUSSELL WORUBA
OFFICER IN CHARGE**