



## **Consultation Response**

### **Licensing for the Provision of Non-Geostationary Orbit (LEO/MEO) Satellite Services in Papua New Guinea**



## **Introduction**

Lightspeed Limited has carefully considered NICTA's consultation paper for licensing and deployment of LEO services in Papua New Guinea and is pleased to provide its opinions on NICTA's stance as stipulated in the documents.

As an individual network licensed network operator and having several gateways with international connectivity in PNG, Lightspeed strongly agrees with section 49 of the *National Information and Communications Technology Act, 2009* (the Act).

This basically states that no person or business shall facilitate access or supply any network service unless they hold an individual network license or class license, and LEO services should not be exempt from this.

### **Should providers of LEO services be licensed by NICTA under the Act, as providers of network services are licensed?**

Lightspeed agrees with NICTA on this stance. Providers of LEO services should have appropriate operator licenses, class licenses, and have the necessary type approvals to deploy any network services in PNG.

Any satellite or network services within PNG must be provisioned by a licensee which holds an authorization issued by NICTA. Furthermore, the entity must be registered in PNG and have a local presence which involves employing staff, training and development and have ample skills to be able to deploy and provide ongoing support for such services.

We also believe that such services should follow a Business to Business (B2B) model of deployment whereby the end users can acquire services from licensed PNG operators and not directly from international LEO services suppliers.

It is imperative that no special licensing provisions should be made for LEO service operators to enable them to deploy services directly in PNG as this will be favoring a particular market player at the expense of local licensees. The regulator (NICTA) needs to remain neutral and regulate all service providers to ensure proper delivery of services in a fair and equitable manner.

### **NICTA's Assessment of the Current Terms and Conditions of Individual Network Licenses**

Lightspeed agrees with the majority of the current terms and conditions of individual network licenses and does not believe that alternative arrangements should apply for companies wishing to deploy services within PNG.

We do wish to emphasize that some LEO operators do not provide a strict service level agreement for basic residential and even enterprise plans and as such NICTA needs to reevaluate any figures placed under licensing conditions for the following subcategories.

- Network performance level in terms of drop out rate and network availability.
- Network repair times and performance.
- Time frame for deployment and repair of services.



Establishing a proper baseline for network uptime and fault repairs will ensure consumer protection and service availability in PNG but these numbers have to be carefully selected as LEO services remain unproven and untested in the local connectivity context due to unavailability of direct coverage over Papua New Guinea at this stage.

### **Addition of a Specific Section to clarify the Terms and Conditions of Individual Network Licenses for LEO Services**

Lightspeed strongly agrees with the points elaborated in the proposed schedule in all areas, especially on the subsections on Application and Validity of License and Authority to provide services using LEO Satellites.

It would be beneficial to add a clause based on importing of LEO equipment and terminals by licensees or anyone in the country for that matter.

This ensures all operators are protected and no one can import LEO terminals and equipment without the proper Type approvals and licenses for PNG. NICTA will need to work closely with PNG customs and border control to ensure this is implemented.

In addition to this, NICTA will need to reevaluate the Minimum level of network performance and Network fault repair deliverables as stated earlier.

### **Constraints on Deployment of LEO Services in Papua New Guinea**

Lightspeed agrees that some constraints need to be applied on where any satellite services can be deployed in Papua New Guinea.

LEO services are primarily meant for areas where telecommunications services are non-existent or inadequate and they will be extremely beneficial for PNG in terms of bridging the digital divide. For PNG, this means using LEO services to further enhance the connectivity which is currently provided via international and domestic fiber circuits.

In addition to this, most satellite bandwidth providers have contended/shared plans which depend on bandwidth availability for specific beams covering certain geographic locations. Not having some form of control over where services are deployed may lead to performance issues in beams which cover portions of both metro and rural areas in the long run as more end user terminals are deployed and more bandwidth is used on LEO services.

Allowing uncontrolled or unvetted deployment of LEO services in areas which have existing network infrastructure, metro fiber, 4G or mobile coverage and fixed wireless coverage may also lead to a decline in revenue and opportunity for local operators who have been diligently providing services for several years.

Lightspeed has always endeavored to provide connectivity and ICT services in all areas of PNG and is of the view that LEO services are a useful tool in bridging the digital divide in PNG and delivering network services to the masses. It is therefore imperative that NICTA carefully considers constraints on the location of LEO service operations.



## **Inclusion of LEO services in the Universal Access and Service Scheme (UAS)**

Lightspeed objects to the structuring and management of LEO services with the UAS Scheme administered by NICTA to some extent.

The current pricing for the services is regulated by the satellite providers and with the inclusion of LEO services to the UAS scheme levies, the profitability margins associated with the product will significantly drop. Increase in cost needs to be compensated with an increase in revenue however with the retail price control power held by the satellite providers, it would be unfair on the current licensed operators to bear additional costs. The current Licensed operators are already paying costs like the annual operator license and UAS levies, Goods and Service Tax and Corporate Tax.

However, no restrictions should be placed on LEO technology to be used for solutions in UAS projects and engineering design and to achieve the goal of the UAS Scheme to encourage the development of ICT infrastructure and improve the availability of ICT services within Papua New Guinea, including in rural communities.

## **Additional Suggestions for LEO Service Providers**

### *Local Gateway*

In addition to being fully licensed to operate in PNG, LEO Satellite providers, specifically Starlink, should be encouraged to have local gateways in Papua New Guinea. Having domestic gateways enables PNG Dataco to get more revenue from CS2 and allows NICTA to have some insight and control over services deployed for the end users out of the PNG gateway. From a technical perspective, this will help to mitigate issues concerning the flow of information, censorship and avoid LEO service providers fully controlling internet access delivered over their networks.

### *Pricing Regulation*

If LEO service providers have no licensing and little to nil investment in spectrum or local infrastructure compared to PNG-owned and operated ISPs and mobile operators, who must invest heavily into spectrum licensing costs and infrastructure just to operate their network, there will be unfair pricing standards in the market. There is certainly a sense of lack of fair play about this.

The traditional theory of predatory pricing is straightforward. The predator, already a dominant firm, sets its prices so low for a sufficient period that its competitors leave the market and others are deterred from entering.

Lightspeed recommends NICTA regulate pricing specifically Starlink's services to avoid any predatory pricing schemes being deployed by the satellite operator.



## Concluding Remarks

Lightspeed welcomes NICTA's proactive approach to LEO Service Providers as stated in this response document. The inclusion of LEO services for PNG will provide great social and economic benefits for the nation along with enhancing digital connectivity.

If LEO service providers are not regulated and required to partner with or register a local entity there could be serious ramifications for the existing service providers and the nation. Loss in revenue for existing operators can eventually lead to downsizing and unemployment for local staff. If LEO operators are allowed to employ the direct B2C (Business to consumer) model and transact in USD/other foreign currency via ecommerce, a further drain in FOREX will occur for the nation and can result in further devaluation of the local currency and loss in tax revenue for PNG IRC.

Providers operating in PNG should also contribute towards the development of the economy and play their part in community and human resources development.

Implementing strict rules around licensing, retail pricing, resellers, service deployment and adding new clauses to the conditions of individual licenses will ensure that LEO service providers operate in the best interests of the country and the ICT sector.

There is a need for each service provider to have a local presence either through a licensed local representative, such as an ISP or telecom operator, or through a local entity, which is duly licensed by NICTA.

The opportunity to bridge the digital divide and connect the masses has never been greater and Lightspeed believes this could be advantageous for the nation if properly regulated prior to allowing new service providers to deploy services in Papua New Guinea.

Submitted by and on behalf of Lightspeed Limited, Papua New Guinea



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