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The Independent Communications Authority of South Africa

Notice of Intention to Conduct an Inquiry into New Individual Electronic Communications Network Service Licences.

To:

The Independent Communications Authority of South Africa (ICASA)
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Introduction

Sateliot, founded in 2018, is the pioneering satellite operator providing IoT (Internet of Things) connectivity via the 3GPP 5G NB-IoT Non-Terrestrial Network (NTN) standard. As the first company to seamlessly extend Mobile Network Operators' (MNOs) terrestrial networks through satellite constellations, Sateliot enables truly global IoT connectivity. Our wholesale business model focuses on providing satellite capacity to MNOs, ensuring uninterrupted coverage for commercial IoT devices through GSMA-standard roaming agreements. This approach plays a critical role in addressing connectivity gaps in rural, remote, and underserved regions worldwide.

Sateliot operates through a 3GPP 5G NB-IoT NTN standard protocol which was defined by all major telecommunications industry stakeholders at 3GPP. Within the protocol, the 2GHz band was defined as one of the bands to implement the standard:

Table 1 - frequency bands for 3GPP 5G NB-IoT NTN standard

NTN Satellite Band #	Uplink (UL) operating band Satellite Access Node receive / UE Transmit FUL low – FUL high	Downlink (DL) operating band Satellite Access Node receive / UE Receive FDL low – FDL high	Duplex mode	Space duplex
256	1980 MHz – 2010 MHz	2170 MHz – 2200 MHz	FDD	190 MHz

Sateliot has participated in the ICASA consultation on both the First and Second Draft of the National Radio Frequency Plan this year and has engaged and continues to engage with ICASA with the goal of providing services within South Africa. In this submission, we provide our insight as a foreign satellite operator looking to provide services within South Africa and to enhance connectivity options for South African citizens, companies and institutions.

Sateliot welcomes the opportunity to answer any questions the Authority may have following this response and remains available to the Authority throughout the process of this Inquiry.

Sateliot has structured this response in accordance with the Questionnaire developed by ICASA.

Questionnaire to Industry Participants and Stakeholders

Organisation	**Satelio IoT Services, S.L.**
Name and surname	**Elisabet Fonalleras**
Position	**Head of Regulatory Affairs and Global Licensing**
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Section 1 Transfer of Individual I-ECNS and I-ECS Licences Framework

Question 1.1. What are your views on the current licensing framework in relation to the sale and transfer of I-ECNS and I-ECS licences (section 13 of the ECA)? In particular, does the current licensing framework hinder or promote competition? In providing your response, please provide reasons supported by evidence or case studies, where applicable.

Sateliot notes that the provisions under Section 13 of the ECA are important and welcomed in the regulatory framework, it is important for operators to be empowered, through regulatory oversight, to transfer and sell their licences. The framework provides a clear process through which this may be facilitated. However, Sateliot strongly expresses concern that this should not be the only means through which an operator may access the South African market.

As a foreign operator currently investigating access to the South African market, Sateliot is actively engaged in this process and notes that while the process as described in Section 13 is clear, in practice market access to South Africa remains complicated and expensive. The costs of acquisition of licenses are not transparent and when compared to market access in comparable markets such as Ghana, Nigeria or Tanzania, the cost of access to South Africa is extensive owing to the acquisition nature.

This by nature reduces competition among operators and hinders smaller operators from accessing the market while larger capitalised operators can afford to pay local consultants, law firms, acquisition and setup costs to assist with the process.

Sateliot would welcome a more competition friendly standard Invitation to Apply (ITA) framework alongside the existing rights of operators to transfer their licences. Ideally though ICASA should be empowered to issue licenses on application to the Authority by operators without an ITA.

Question 1.2. In your view, should the Authority intervene in the current sale and transfer market to facilitate the purchase of existing licences? If yes, to what extent should the Authority intervene? Please motivate your response by providing reasons and any supporting evidence or data.

Yes, at present it is difficult for smaller foreign operators to navigate without hiring local consultants and lawyers. Most importantly however, it is unclear who the current licence holders are and what the cost of licences are.

There is a perception that licences are held by entities who have or never had any intention of providing services within South Africa, and instead are holding them only to profit off of their sale. This limits the amount of genuine service providers operating in South Africa and reduces competition. In our experience, many of the holders of licences are defunct companies who are uncontactable.

We humbly recommend ICASA conducts an audit of existing licence holders and revokes the licences of entities which are unresponsive, defunct or are otherwise just sitting on licences with no intention of providing services. These licences can be issued through an ITA to operators with a strong case and business plan for operations within South Africa.
Additionally, ICASA can review the pricing structure of these licences. The Authority holds the full authority to approve or deny licence transfers and can use this power to ensure fees are not excessive or unreasonable.

ICASA can also intervene in the licence timeline structure much like spectrum licences but implementing a use-it-or-lose-it approach to service and network licences to prevent operators from holding licences with no intention of servicing or connecting South African users.

Question 1.3. What other considerations or interventions would be useful for the Authority to consider regarding the effectiveness and efficiency of the current sale and transfer licensing framework so as to promote competition?

The underlying intervention Sateliot would welcome is for ICASA to exercise its authority on the approval or denial of transfers. ICASA can deny a transfer where fees imposed were too excessive.

Additionally, as noted above, an audit of operators currently in derogation of their licence duties, whether as a result of bankruptcy, late payment fees or any other reason. These operators are holding licences which are not currently in use and are not connecting and servicing South African users.

Section 2 The Demand for New Individual ECNS Licences

Question 2.1. In your view, are there sufficient market opportunities to justify issuing new I-ECNS and I-ECS licences? Please motivate your response.

Absolutely. Technology continues to evolve and new services such as Direct-to-Device and Non-Terrestrial Networks are coming to market globally. These are not services consolidated under existing operators but are new operators entirely. These operators, such as Sateliot, require their own licences to provide services. Anecdotally, Sateliot is aware that many other satellite competitors are looking to access the South African market. This is good for South African consumers who will have a wide range of potential service providers to choose from. Additionally, these new operators and services bring significant value to other South African businesses and sectors, enhancing connectivity in agriculture, mining, manufacturing and logistics. This represents a strong enabler for the South African economy as a whole.

Question 2.2. Have you, or are you aware of any licensee or interested party who has, considered or is considering launching or expanding network infrastructure or providing services in South Africa? What technologies, network architecture and/or spectrum frequencies do you think would be appropriate for any new I-ECNS licensees? Please provide examples or evidence where possible.

Yes. For starters, Sateliot is currently engaged with the process and committed to provide services within South Africa. We are aware of other operators but respectfully hold this information in confidence and will engage with ICASA privately should this be required.
As described above, we are involved in the Non-Terrestrial Network market segment looking to connect IoT devices in South Africa. Sateliot seeks spectrum rights in the 2GHz band.

Question 2.3. If you are an existing licensee, did you acquire your I-ECNS and or I-ECS licences through the sale and transfer market (i.e. bought from another licensee) or did you obtain them directly from the Authority (not through transfer or change of ownership)? If acquired from the secondary market, please provide details on your experience.

We are currently engaged in the process of acquiring a licence through purchase and transfer. We are also engaged with the Authority on the possibility of a temporary test licence. We have been advised of a high purchase price to acquire an I-ECNS. We are happy to discuss this aspect of the questionnaire confidentially with the Authority.

Question 2.4. If you have/had I-ECNS and/or I-ECS licences, have you been approached or have you received unsolicited or solicited interest from an interested buyer to acquire your licence? Please elaborate and provide as much information as possible, if applicable.
No.

Question 2.5. If you have I-ECNS and/or I-ECS licences and are not intending to sell your licence(s) in the next 3 - 5 years, please describe the infrastructure used (mobile, fixed, satellite or combination). Provide a list of services that you currently provide and whether those are provided to private consumers and/or businesses/organisations (or both where appropriate)?

Sateliot has no licence currently but wishes to note when we obtain our licence, we have no intention of selling or transferring our licence. Our service is wholesale satellite connectivity on 3GPP NTN standardised 2GHz. We also have engaged a local MNO partner within South Africa and are able to discuss further with the Authority privately.

Question 2.6. Are there any additional points that you think would be useful for the Authority to consider regarding the demand for I-ECNS and I-ECS licences?

All aspects have been laid out above. However, it is also worth noting that the Authority and South Africa by large does not stand to lose anything by opening licences entirely to be applied for at will by an operator intending to provide services. Regardless of how open the process is, ICASA still retains authority to approve or deny licences and spectrum rights remain regulated separately. We therefore see no issue of ICASA publishing application forms on its website which may be applied for at any time. We do understand that this requires an amendment to the Electronic Communications Act but believe this could position South Africa as a business friendly leading market within the continent.

Section 3 Whether new I-ECNS Licences will Promote Competition in the Market for I-ECNS

Question 3.1. In your view, do you believe that new I-ECNS licences will promote or improve competition in the market? Please substantiate your answer.

Absolutely. A restriction on the number of I-ECNS serves only to consolidate and limit the market. It stands to reason that the easier it is for a market to be accessed the more entrants there will be and the more competition the market will have, resulting in better opportunities for the end users. Existing competition law within South Africa provides a framework to ensure ongoing competitive markets once a licensing framework is made open and accessible.

Sateliot recognises the need for ICASA to ensure services and networks are adequately licenced and South Africans enjoy access to high quality electronic communication services and furthermore that revenue is collected to ensure the continued functioning of the Authority. All of these objectives can be achieved with an open licence structure and further access to I-ECNS licences.

Question 3.2. If you answered yes to Question 3.1 above, are there any competition issues or concerns that may hinder the effectiveness of such new I-ECNS licences in promoting or improving competition? Please provide evidence or examples.

One primary concern we have is that the new licences do not solve the current problem but only increase the number of licences available on the market within 5-10 years. While this will likely bring the cost down on the secondary market due to an increase in supply, it does not actually address the issue of having a secondary market for licences in the first place. We believe the primary method through which licenses should be acquired is on application by the Authority and the payment of a standardised licence application fee in line with international best practice.

Question 3.3. What regulatory measures, if any, should the Authority consider to remedy the competition concerns you have identified in Question 3.2 above, or to ensure that any new I ECNS licences compete effectively with the incumbents? Provide examples of the kinds of remedies you would expect to see.

Sateliot believes that ideally licences are controlled by the Authority and are issued by the Authority. The act of transferring or buying licences is a great tool to easily facilitate corporate mergers and acquisitions when approved by the Competition Commission and the Authority and should be utilised for this purpose.

We strongly support ICASA taking control of the licences from defunct, bankrupt or otherwise non-compliant licence holders which can then be reissued on an ITA. Sateliot would support any amendments to the Electronic Communications Act which grant the Authority the right to issue I-ECNS and I-ECS licences without the need for a policy direction from the Department.

Section 4 Potential Contribution of New I-ECNS Licenses to Universal Access and Service

Question 4.1. In your view, will new I-ECNS and I-ECS licences contribute to universal access and service within the current electronic communications network and services market? Please explain the mechanisms through which such contribution may occur. Provide any supporting data, case studies, or examples.

This is highly dependent on the nature of the network and service which the operator provides when applying for the licence. In Sateliot's case, our NTN solution is designed primarily to extend connectivity to rural, remote, and underserved areas, enabling universal access and coverage where terrestrial networks are unavailable or economically unfeasible.

Sateliot's satellite connectivity is based on the 3GPP NB-IoT NTN standard, which ensures interoperability with any standard-compliant NB-IoT device available on the market. This open, standards-based approach significantly reduces the cost of access and increases affordability compared to traditional satellite solutions.

Our business model is built entirely on partnerships with local Mobile Network Operators (MNOs). Subscribers of our partner MNOs automatically gain access to Sateliot's satellite network whenever terrestrial coverage is unavailable, creating a seamless connectivity experience.

While different NTN providers adopt diverse deployment strategies, most share a common goal: to connect the unconnected by addressing the needs of remote and hard-to-reach regions.

Question 4.2. In your view, how should the Authority incorporate universal access and service obligations into the terms and conditions of new I-ECNS and I-ECS licences to ensure equitable access to communications services across South Africa?

We believe that the obligations and responsibilities imposed through the license should be harmonised and standardised as much as possible, understanding the principles of tech-neutrality.

Section 5 Benefits of New I-ECNS Licenses Versus Costs, Including the Cost to the Authority of Monitoring and Enforcing Compliance with any such Licenses, and the Burden on the Environment

Question 5.1. Are there any potential negative consequences associated with the rollout of infrastructure by the new I-ECNS licensees that the Authority should consider?

We can not provide any negative reason for the Authority to not roll-out additional licenses. Understanding environmental considerations, this can be addressed through other policy directions such as infrastructure sharing. However, given our nature as a satellite network operator, we do not require any physical infrastructure to be built in South Africa.

Question 5.2. What new or additional benefits, if any, could new I-ECNS licences provide compared to existing licensees? Please provide examples or evidence of potential improvements such as service coverage, infrastructure rollout, technological innovation, competition, or other market and social benefits.

Sateliot, as a satellite network operator, providing direct NTN connectivity to mobile devices, we believe that new I-ECNS licences would enable significant improvements in service coverage, infrastructure rollout, and technological innovation compared to existing terrestrial licensees. Satellite NTN services can extend connectivity to rural, remote, and maritime areas where terrestrial networks are economically unfeasible, thereby directly supporting South Africa's universal service and connectivity objectives.

Unlike traditional infrastructure, satellite networks can be deployed rapidly and at scale, offering immediate nationwide coverage without the delays and costs associated with tower construction or fibre deployment.
Technological innovation is further illustrated by the nature of our service. NTN systems now allow IoT devices and standard mobile devices to connect directly to satellites, aligning with global 3GPP standards and ensuring South Africa remains at the forefront of next-generation communications.

We have addressed competition throughout this questionnaire but further note that the entry of satellite operators introduces alternative infrastructure providers, reducing reliance on incumbents and fostering hybrid terrestrial-satellite solutions that can drive down costs and improve service quality.

The broader social and economic benefits include enhanced digital inclusion, improved access to education, healthcare, and e-government services, as well as strengthened disaster resilience. In our view, new I-ECNS licences issued to satellite NTN operators would not only bridge the digital divide but also stimulate innovation, competition, and economic growth across multiple sectors of the South African economy.

Section 6 Any Other Comments

Question 6.1. Do you have any additional comments regarding this Inquiry process that you would like the Authority to consider?

While this inquiry is ongoing, Sateliot would welcome further engagement with the Authority on the establishment of a test licence or similar regulatory sandbox through which Sateliot and the Authority could test the assumptions made in this response and the benefits we believe NTN technology can bring to South Africa.

Conclusion

We thank ICASA for issuing this important inquiry and look forward to continuing discussions with ICASA as the process progresses. We will additionally look to contribute to the evolving discussion around MSS/IMT and NB IoT and the new I-ECNS in any manner which ICASA welcomes our support.

Sincerely,

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