

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

Response to the Draft Amendment of the Radio Frequency Spectrum Regulations

Date

29 June 2026

Submitted by

Satelio IoT Services, S.L.

Carretera del Prat 8
08038 Barcelona, Spain

Elisabet Fonalleras

Head of Regulatory Affairs and Global Licensing

[REDACTED]
[REDACTED]

Introduction

Sateliot welcomes the opportunity to respond to the consultation issued by the Independent Communications Authority of South Africa (ICASA) on the draft amendments to the Radio Frequency Spectrum Regulations.

Founded in 2018, Sateliot is the first LEO satellite operator to provide global IoT connectivity using the 3GPP 5G NB-IoT NTN standard, which extends terrestrial mobile networks into space. This enables seamless integration between mobile network operators (MNOs) and satellite services, delivering uninterrupted connectivity in remote and underserved areas without any modification to existing IoT devices. As a wholesale satellite-capacity provider, Sateliot works in close collaboration with MNOs under GSMA roaming agreements, complementing and extending terrestrial coverage rather than competing with mobile services. Its constellation functions as a network of cell towers in space, providing cost-effective, standardised connectivity across diverse markets and verticals, fully compliant with 3GPP NB-IoT NTN Release 17 and the 3GPP/GSMA framework for roaming interconnection.

As Sateliot grows, it intends to offer its network-operator clients a broader suite of connectivity options, including wideband services for verticals such as security and defence. As the Tritó system evolves, Sateliot is targeting this wideband market with a suite of services delivered under a single constellation, requiring 5 MHz of spectrum in 3GPP band n256 (S-band), namely:

- Government services;
- Emergency services (direct-to-device);
- NTN IoT (Release 17); and
- Wideband connectivity (Release 19).

This submission follows the structure of the draft amendments. In summary, Sateliot respectfully requests that the Authority:

- clarify that the ESIM provisions in Regulation 28A and Annexure K are directed at Ku- and Ka-band fixed-satellite service (FSS) broadband ESIMs, and do not apply to mobile-satellite service (MSS) NTN IoT user terminals operating in sub-6 GHz bands such as the 2 GHz S-band;
- confirm that MSS user terminals already type-approved in South Africa, and operating via a roaming arrangement with a licensed South African operator, are authorised under that operator's service licences and the applicable type-approval framework, without separate ESIM-style authorisation;
- refine Regulation 28B(4) so that, where services are provided through wholesale satellite capacity, the obligation to provide and maintain lawful interception capabilities rests with the licensed South African operator that controls the core network and subscriber relationship, while retaining that obligation for stand-alone retail satellite services; and
- adjust the penalty in Regulation 42(9) so that sanctions for registration-related obligations remain proportionate and consistent with the intended light-touch registration regime.

Draft Regulation 28A: Earth Stations in Motion

Sateliot supports the recognition of ESIMs authorised in foreign jurisdictions and the time-limited exemption for foreign ESIMs, which reflects the approach of the relevant ITU instruments and reduces administrative duplication.

Regulation 28A and Annexure K are, however, directed at fixed-satellite service (FSS) broadband ESIMs operating in Ku-band and Ka-band. Sateliot's service is a mobile-satellite service operating in sub-6 GHz spectrum, notably the 2 GHz S-band MSS allocation, under the 3GPP NB-IoT NTN standard. The draft regulations therefore do not address how MSS user terminals are to be authorised, or whether terminals already licensed may roam onto a non-terrestrial network without further licensing.

Sateliot respectfully suggests that the Authority clarify that MSS user terminals operating through a roaming arrangement with a licensed South African operator are authorised under that operator's service licence and the applicable type-approval framework, rather than requiring separate, ESIM-style authorisation. This would be consistent with the standardised, device-agnostic nature of the 3GPP NTN ecosystem, in which terminals require no modification to operate across networks.

This approach would also align with existing ICASA practice on international roaming. South African subscribers today roam onto foreign terrestrial networks without separate licensing of their devices in the visited country, provided the devices are type-approved and the home network is licensed in South Africa. MSS/NTN IoT roaming relies on the same standard 3GPP mechanisms; the only difference is that the visited radio access network is provided by a satellite constellation rather than terrestrial base stations.

Sateliot therefore respectfully requests that the Authority:

- clarify, within Regulation 28A or the accompanying explanatory memorandum, that Regulation 28A and Annexure K apply to ESIMs operating in the Ku- and Ka-band FSS frequency ranges listed in Annexure K, and not to MSS/NTN IoT user terminals in sub-6 GHz bands; and
- confirm that MSS user terminals type-approved in South Africa that connect to an MSS/NTN network through a roaming arrangement with a licensed South African operator are authorised under that operator's electronic communications service and/or network service licences, without separate ESIM-style authorisation.

Regulation 28B: Satellite Space Segment

Registration approach

Sateliot welcomes the registration approach in Regulation 28B. A simple, no-fee registration that establishes a direct line of contact between the Authority and the operator for interference and security matters, without conferring service rights, is proportionate and efficient, and is consistent with the Authority's stated intention that the process be simple and not administratively burdensome.

Lawful interception and RICA (Regulation 28B(4))

Sateliot has significant reservations about this provision. Regulation 28B(4) would require a satellite space segment operator providing services in the Republic to provide and maintain lawful interception capabilities to facilitate the implementation of RICA. In wholesale roaming scenarios, this obligation falls on a party that is neither technically nor legally positioned to discharge it: a foreign wholesale space-segment provider such as Sateliot does not hold the subscriber relationship, does not control the South African core network, and does not maintain the lawful interception interfaces envisaged under RICA.

Sateliot operates its own network, including its own core, which connects to the home-network provider (the MNO partner) through 3GPP roaming interfaces. It is not part of the mobile operator's network; it is a separate network that complements the operator's network by extending service to areas without coverage. As a foreign space segment operator supplying only wholesale capacity, Sateliot holds no subscriber relationship and no communication-related information about end users.

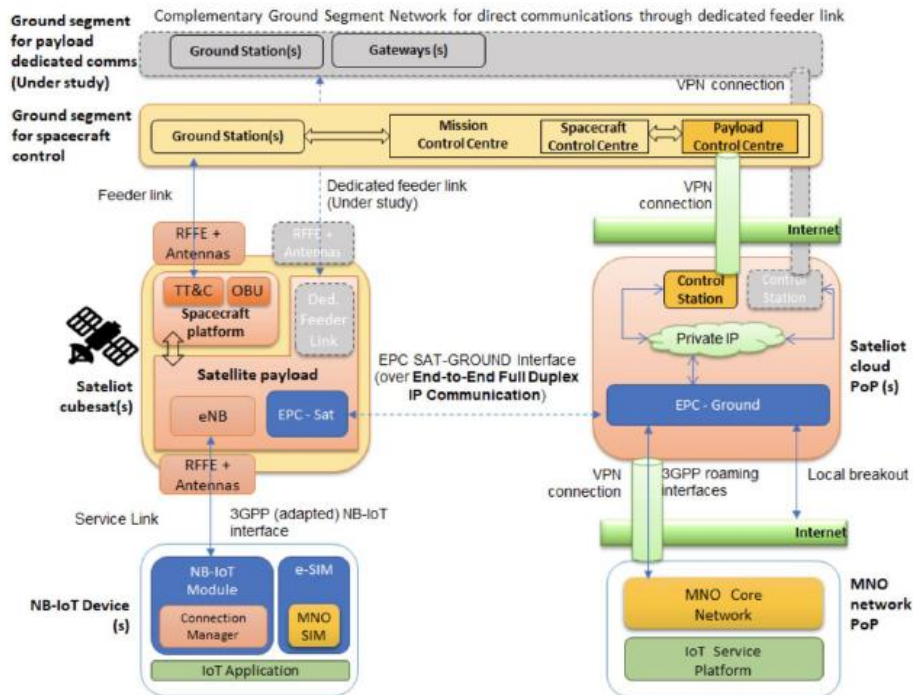


Figure 1. Integration of Sateliot's network with MNO partners.

On the device side (lower left), an NB-IoT module embedding the 3GPP-compliant NB-IoT extensions for satellite transmission supports two-way communication via Sateliot's satellites, enabling IoT applications that range from simple reporting to remote actuation. The device uses a SIM (or eSIM or nu-SIM) from its home mobile network and connects by roaming onto Sateliot's constellation, which appears in the visited-network list. The satellite payload hosts an eNodeB and a store-and-forward mechanism developed in-house, and communicates with the ground segment over the feeder link, which also carries spacecraft telemetry and telecommand. In later phases, additional feeder links to distributed gateways will increase capacity and reduce both latency and the time the satellite is disconnected from the core.

In the 3GPP lawful interception architecture, interception capabilities are implemented in the core network of the operator that serves the subscriber and controls the numbering and authentication resources. In a roaming-based NTN IoT model, that operator is the licensed South African mobile network operator, not the foreign wholesale satellite provider. Requiring a wholesale provider to maintain a full lawful interception capability would therefore not advance RICA's objectives, while imposing a compliance burden on an entity that cannot meaningfully fulfil it.

Sateliot fully supports the principle that communications carried over the network must remain capable of lawful interception. It submits only that the obligation should rest with the entity technically and legally able to discharge it: the licensed South African mobile network operator through whose core network the service is provided. Operators that serve subscribers directly, without a partner MNO and outside a wholesale arrangement, should of course remain subject to interception requirements; that situation is distinct from the wholesale arrangement described here.

Sateliot therefore respectfully submits that Regulation 28B(4) be refined to distinguish between:

- wholesale space-segment providers that supply capacity to a licensed South African operator via roaming, where the lawful interception obligation should rest with the South African licensee that controls the core network and subscriber relationship; and
- satellite operators that provide services directly to subscribers in South Africa and are themselves licensees, where the operator should maintain its own lawful interception capability.

By way of example, the Authority could consider wording along the following lines:

“(4) Where a satellite space segment operator provides capacity on a wholesale basis to a holder of an electronic communications service and/or electronic communications network service licence under the Act, the obligation to provide and maintain lawful interception capabilities in respect of services provided to subscribers in the Republic rests with that licensee, which must ensure that such services remain capable of lawful interception in accordance with RICA. The satellite space segment operator must co-operate with the licensee and the Authority, upon reasonable request, by providing the information necessary to enable the licensee to comply with its obligations under RICA.

Where a satellite space segment operator provides electronic communications services directly to subscribers in the Republic and is licensed under the Act to do so, it must itself provide and maintain lawful interception capabilities in accordance with RICA.”

This preserves strong lawful interception safeguards while ensuring that, in each scenario, the obligation rests with the party best placed to discharge it.

Regulation 42: Penalties

Regulation 42(9) would make a contravention of Regulation 28B(3) to (6) liable to a fine of up to R5 000 000. Sateliot submits that a penalty of this magnitude is disproportionate when applied to obligations arising from a no-fee registration that confers no service rights, and that it sits uneasily with the Authority’s stated intention for a light-touch regime. Under the current drafting, and given Regulation 28B(4), a space segment operator could face a fine of up to R5 000 000 for failing to provide a lawful interception capability that it is not technically able to provide. Sateliot recommends that this penalty be removed, or reduced to a proportionate amount focused on serious, harmful non-compliance.

Conclusion

Sateliot supports the Authority's initiative to modernise the satellite services framework, and in particular the streamlined registration approach for foreign space segment operators.

Sateliot's principal request is that the lawful interception obligation in Regulation 28B(4) be reallocated to the licensed South African MNO in scenarios where the foreign operator partners with a local operator, since that MNO controls the network core and the subscriber relationship. This allocation is consistent with RICA, with the 3GPP lawful interception architecture, and with the wholesale nature of Sateliot's service, and it ensures that the obligation rests with the party able to discharge it.

In addition, Sateliot respectfully requests that the Authority:

- clarify that Regulation 28A and Annexure K apply to Ku- and Ka-band FSS broadband ESIMs, and not to MSS/NTN IoT terminals in sub-6 GHz bands;
- confirm that MSS user terminals operating via roaming with a licensed South African operator are authorised under that operator's licences and existing type-approval processes; and
- ensure that penalties for contraventions of the new space-segment obligations remain proportionate to the no-fee registration regime and focused on serious, harmful non-compliance.

Sateliot would be pleased to engage further with the Authority on any of the matters raised in this submission.

Sincerely,

Elisabet Fonalleras

Head of Regulatory Affairs and Global Licensing

elisabet.fonalleras@sateliot.com

+34 660 753 381