



12<sup>th</sup> November 2024

The Independent Communications Authority of South Africa (ICASA)

350 Witch-Hazel Avenue

Eco-Park Estate

Centurion, 0144

For attention: Mr. Mandla Mchunu ([satlicensing@icasa.org.za](mailto:satlicensing@icasa.org.za))

**Submission of Comments on ICASA's Satellite Licensing Framework Consultation**

On behalf of Global Policy Partners (GPP), I am pleased to submit our response to ICASA's consultation document on the satellite licensing framework. GPP is committed to supporting the development of a forward-looking regulatory environment that drives digital transformation, enhances connectivity, and positions South Africa as a leader in satellite communications.

Our submission reflects GPP's extensive experience in satellite policy and our commitment to fostering an inclusive and sustainable satellite industry. In particular, we have focused on key questions within the consultation that are essential for transforming the satellite sector and maximising its potential for South Africa's digital economy.

We hope that our insights will be valuable to ICASA in shaping a regulatory framework that accommodates emerging technologies and aligns with South Africa's connectivity goals. Should you require further information or clarification on any part of our submission, GPP would welcome the opportunity to engage with ICASA to discuss these topics in greater detail.

Thank you for the opportunity to contribute to this important consultation. We look forward to continued collaboration with ICASA and to supporting South Africa's progress in satellite communications.

Warm regards,




Wydeman Coetzee

Founder & Managing Partner

Global Policy Partners (GPP)

 [wydeman@gpp-consult.com](mailto:wydeman@gpp-consult.com)

 083 200 1889



**Response to ICASA's Satellite Licensing  
Framework Consultation Document  
Advancing South Africa's Connectivity through  
Inclusive Satellite Policy**

GLOBAL POLICY PARTNERS (PTY) LTD

12<sup>th</sup> November 2024



## Table of Contents

<b>1. BACKGROUND.....</b>	<b>3</b>
<b>2. INTRODUCTION .....</b>	<b>3</b>
<b>3. RESPONSES TO THE CONSULTATION QUESTIONS .....</b>	<b>4</b>
<b>4. CONCLUSION .....</b>	<b>10</b>



## 1. Background

Satellite technology has undergone significant transformation in recent years, driven by innovations in satellite design, spectrum utilisation, and orbital deployment. From traditional geostationary orbit (GSO) satellites providing broadcasting services to the new non-GSO constellations capable of delivering low-latency broadband, the satellite industry is evolving at an unprecedented pace. The ability of NGSO constellations, such as those in LEO and MEO, to offer global, high-speed internet connectivity has positioned satellite technology as a viable solution for bridging digital divides, particularly in rural and remote areas.

In Africa, where connectivity challenges remain a barrier to economic growth and social development, satellite technology offers an essential path to digital inclusion. According to recent data, over 40% of Sub-Saharan Africa remains unconnected, with rural communities disproportionately affected. Traditional connectivity solutions like fibre and terrestrial wireless infrastructure are often limited by high deployment costs and challenging geographic conditions, making satellite an attractive alternative. However, to fully realise the potential of satellite technology, regulatory frameworks must evolve to accommodate diverse satellite constellations, shared spectrum use, and new licensing models that facilitate widespread deployment.

In this context, ICASA's consultation on the satellite licensing framework is timely and critical. As the South African communications regulator, ICASA plays a pivotal role in setting policies that impact both national and regional connectivity. By updating its satellite licensing framework, ICASA has the opportunity to create a forward-looking regulatory landscape that not only supports South Africa's digital transformation goals but also aligns with broader African Union (AU) and African Telecommunications Union (ATU) objectives for a connected continent.

Global Policy Partners (GPP) has a deep understanding of the policy and regulatory nuances involved in satellite communication. With experience supporting satellite policy development across diverse markets, GPP is well-positioned to contribute insights that balance regulatory requirements with industry innovation. Our approach in this response is informed by a commitment to enhancing South Africa's role as a digital transformation leader while advocating for a regulatory framework that encourages investment, fosters sustainable development, and empowers satellite operators to support connectivity across Africa.

## 2. Introduction

Global Policy Partners (GPP) appreciates the opportunity to respond to ICASA's consultation on the satellite licensing framework. This initiative represents a critical step toward establishing a modern regulatory framework that not only aligns with South Africa's connectivity ambitions but also fosters innovation, inclusivity, and regional leadership in the satellite sector. As an organisation with extensive expertise in satellite communication policy and spectrum management, GPP is committed to supporting



policies that accelerate digital transformation, enhance universal access to broadband, and promote the responsible development of satellite technology.

The satellite industry is at the forefront of bridging connectivity gaps, particularly in areas where terrestrial networks face economic or logistical constraints. In South Africa, satellite technology can be instrumental in achieving universal service objectives by providing high-capacity, reliable connectivity to underserved communities. ICASA's approach to this framework is, therefore, essential for shaping a future-ready regulatory environment that supports not only traditional geostationary satellite operators but also new non-geostationary satellite orbit (NGSO) constellations, including low Earth orbit (LEO) and medium Earth orbit (MEO) satellites. GPP's response emphasises the need for an adaptable, technology-neutral regulatory framework that accommodates a wide range of satellite systems and enhances South Africa's position as a pioneer in satellite-driven connectivity.

### 3. Responses to the Consultation questions:

Please note that we will focus our comments on key questions within the consultation, addressing those most critical to driving meaningful transformation within the satellite sector.

**Question 1: These are the policy principles from the ATU that ICASA seeks to align with. Kindly provide comment(s) on the proposed policy principles and any further recommendations listed in this section?**

GPP supports ICASA's alignment with the African Telecommunications Union (ATU) policy principles, as these are crucial for harmonising satellite communication standards across Africa. This approach will create a unified regulatory landscape, enabling satellite operators to deploy services efficiently and affordably across the continent. We recommend that ICASA integrate a flexible regulatory approach to allow for the adaptation of emerging satellite technologies, such as NGSO and mega-constellations. Additionally, promoting spectrum sharing and providing incentives for operators supporting digital inclusion initiatives will further align South Africa with ATU's connectivity goals.

**Question 2: Do you agree with the exclusions of radio navigation satellite services, amateur satellite services, earth exploration, space research satellite services, and radio astronomy services indicated above and others if applicable? If not, please explain your reasoning and propose an alternative to this proposal?**

GPP agrees with ICASA's proposal to exclude radio navigation, amateur satellite services, earth exploration, space research, and radio astronomy services from the primary licensing framework. These services have distinct operational parameters and spectrum needs that are best managed separately to avoid conflicts and spectrum congestion. However, ICASA should consider adopting a dedicated regulatory framework for these services, ensuring that they do not interfere with the broader commercial satellite



landscape. This framework could include spectrum allocation guidelines to maintain the integrity and operational effectiveness of excluded services.

**Question 3: Do you agree with the proposed approach of having separate licensing/authorisation (where applicable) for each segment of the Satellite Communication value chain? Please elaborate.**

We support ICASA's proposed approach of implementing separate licensing for different segments of the satellite communication value chain, including gateway earth stations and user terminals. This segmented approach ensures that regulatory oversight is tailored to the specific operational and technical requirements of each segment, contributing to a structured, efficient, and transparent framework for the industry.

It is, however, critical that these requirements are applied uniformly to all operators, including both established players and new entrants into the South African satellite market. Allowing exemptions or bypassing requirements for certain operators would distort competition, creating unfair advantages and potentially undermining the integrity of the regulatory framework. Consistent and equitable application of licensing requirements is vital to fostering a competitive satellite market that encourages innovation and investment.

To maintain a level playing field, GPP urges ICASA to ensure that all market participants, regardless of size or market tenure, are subject to the same regulatory and licensing standards. This will prevent disparities in operational obligations and ensure fairness across the industry. Moreover, such consistency will strengthen investor confidence in South Africa's satellite sector by guaranteeing a stable and predictable regulatory environment.

**Additional Recommendations:**

While GPP supports segmented licensing, we also recommend that ICASA explore the potential for a harmonised or unified application process for operators managing multiple segments of the value chain. A single, consolidated application could streamline administrative processes, reduce compliance burdens, and enable operators to better plan their investments and operations. This approach would not eliminate segmented licensing but would simplify the procedural steps required to achieve compliance, ensuring that operators can focus on deployment and service delivery.

**Question 4: Please provide your comments on the proposal regarding the duration of the Gateway Earth Station License.**

GPP believes that a license duration of 10-15 years for Gateway Earth Stations is ideal, balancing the need for regulatory oversight with the investment security necessary for operators to commit to large-scale infrastructure. A longer license period encourages satellite operators to make significant financial and operational investments in South Africa's satellite ecosystem, confident that their long-term commitments are protected by regulatory stability.



The construction and operational costs for gateway earth stations are substantial, often requiring millions of dollars in capital expenditure. Such infrastructure projects involve extensive planning, including site acquisition, environmental assessments, engineering design, and installation. A 10-15 year license term aligns well with the typical amortisation period for these investments, allowing operators sufficient time to recover costs, realise a return on investment, and reinvest in infrastructure upgrades as technology evolves.

International Examples Supporting a 10-15 Year License Period:

**1. United States (Federal Communications Commission - FCC)<sup>1</sup>:**

The FCC generally issues licenses for satellite earth stations with an initial term of 15 years. This longer duration is intended to foster investment in critical infrastructure while ensuring that operators are aligned with regulatory developments and evolving standards. By providing a stable regulatory environment, the FCC enables operators to confidently deploy infrastructure with high initial costs, knowing that they have a secure operational period to justify the investment.

**2. European Union:**

In the European Union, several countries issue earth station licenses for 10 to 15 years. This time frame allows the operators to plan and execute long-term service strategies, while also supporting regional and national connectivity objectives. The extended license duration provides an incentive for operators to engage in rural and underserved markets, knowing they have sufficient time to realise the value of their investments.

**3. Canada (Innovation, Science, and Economic Development Canada - ISED)<sup>2</sup>:**

In Canada, satellite earth station licenses are typically granted for 10-year periods, with renewals available subject to compliance with regulatory conditions. This approach balances investment stability with regulatory flexibility, enabling operators to adapt to evolving technical standards and policy changes over time. The 10-year period aligns with the lifespan of much of the equipment used, ensuring that operators can upgrade their technology at reasonable intervals.

Benefits of a 10-15 year license duration:

- **Investment security:** A 10-15 year term provides operators with the regulatory certainty required to make substantial, upfront investments in gateway earth station infrastructure. Operators can confidently allocate resources, expand facilities, and contribute to South Africa's connectivity landscape.

---

<sup>1</sup> <https://www.govinfo.gov/content/pkg/CFR-2015-title47-vol2/pdf/CFR-2015-title47-vol2-part25.pdf>

<sup>2</sup> <https://ised-isde.canada.ca/site/spectrum-management-telecommunications/en/learn-more/key-documents/procedures/client-procedures-circulars-cpc/cpc-2-6-01-procedure-submission-applications-license-fixed-earth-stations-and-approve-use-foreign>



- **Incentive for long-term planning:** Longer license terms encourage operators to implement advanced technologies and upgrade systems over time. With a secure license term, operators are more likely to make continuous improvements, enhancing service quality and ensuring alignment with global standards.
- **Alignment with technology lifecycles:** Satellite technology and supporting infrastructure typically have lifespans of a decade or more. A 10-15 year license period aligns with these lifecycles, allowing operators to deploy and operate equipment without facing the financial and operational disruption that would arise from shorter licensing terms.
- **Support for digital transformation goals:** By offering longer license terms, ICASA can attract more operators to the South African market, enhancing competition, driving innovation, and supporting national digital transformation goals. A stable regulatory environment encourages the participation of international players, fostering knowledge transfer and best practices in the local satellite sector.

To address regulatory oversight, GPP suggests that ICASA could implement a review mechanism for licenses at the halfway mark (e.g., after 5 or 7.5 years). This interim review would allow ICASA to assess compliance with licensing conditions and address any emerging regulatory needs without disrupting the continuity of operations for compliant licensees.

In conclusion, a 10-15 year license duration for gateway earth stations strikes an optimal balance between promoting investment and maintaining regulatory oversight. It positions South Africa as an attractive destination for satellite operators, aligning with international best practices and supporting the country's strategic goal of becoming a leader in digital connectivity.

**Question 5: Please comment on the alternative proposal to levy spectrum fees from gateway earth stations and indicate your preferred option. ICASA understands that there is other spectrum fee calculation methodologies used elsewhere in the world. Please give details of the methodologies which you believe would be most suitable for South Africa.**

GPP appreciates ICASA's consideration of both the proposed HTS (High-Throughput Satellite) fee factor and the alternative spectrum fee model. After analysing the two options, GPP supports the alternative model, which bases variable fees per MHz on the frequency band in use. This approach ensures a fairer, more balanced spectrum fee structure by accounting for the varying characteristics of different frequency bands.

#### **Advantages of the Alternative Spectrum Fee Model:**

##### **1. Equitable pricing across frequency bands:**

The alternative model acknowledges the differences between lower and higher frequency bands, particularly the narrower channel widths in the lower ranges, which are often measured in kilohertz (kHz) rather than MHz. By tailoring fees to reflect the





relative size of frequency assignments and the limited availability of spectrum in lower bands, this model promotes equity and ensures that fees are proportionate to spectrum utilisation.

## 2. Support for sustainable growth:

Aligning spectrum fees with frequency characteristics creates a predictable and transparent cost structure, enabling operators to better plan investments and operational budgets. This predictability fosters confidence in the regulatory framework, encouraging long-term investment in South Africa's satellite industry while supporting sustainable growth.

### Recommendations:

To enhance the alternative model's effectiveness, GPP recommends the following:

- **Incorporate tiered fee adjustments:** Introduce tiered adjustments based on geographic areas served, offering lower fees for operators providing services to rural or underserved regions. This would incentivise connectivity expansion in high-need areas and align with South Africa's universal service objectives.
- **Periodic review mechanism:** Establish a mechanism for periodic review and adjustment of spectrum fees to account for technological advancements, market conditions, and evolving industry needs. This ensures the model remains adaptable and forward-looking.
- **Transparency in fee determination:** Provide clear guidelines on the methodology used for calculating spectrum fees under the alternative model. This transparency will enable operators to conduct accurate cost assessments and ensure trust in the regulatory process.

**Question 6: Kindly comment on the proposal for blanket licensing with a fee for a set number of terminals under the new proposed license regime to be referred to as "Satellite User Station Network License." If possible, please provide a breakdown of the number of terminals with the corresponding spectrum fees in South African Rands.**

GPP supports ICASA's proposal for a blanket licensing approach under the "Satellite User Station Network License," with a set fee structure for user terminals. This model simplifies the licensing process and reduces administrative burdens, enabling operators to deploy and manage large-scale terminal networks more efficiently. Such a framework is essential for accelerating connectivity in underserved areas, which are often challenging for traditional networks to reach.

However, GPP emphasises that the fee structure must remain reasonable to avoid creating barriers to business sustainability or hindering the expansion of satellite services. Operators require cost predictability to effectively plan investments, scale operations, and continue contributing to South Africa's digital transformation goals. A fair and transparent fee structure is critical for ensuring that the licensing framework supports both industry growth and broader socio-economic development.



GPP is concerned that the lack of clarity on how the terminal license fee will be calculated makes it challenging to provide meaningful feedback on the appropriateness of the proposed fees. If these fees are not tied to a clear and justifiable structure, such as the Gateway Earth Station license fee framework, operators may face unexpected financial burdens, potentially affecting their ability to sustain and expand services. ICASA's clarification on the basis for determining the fee is urgently needed to facilitate informed and constructive engagement.

**Recommendations:**

1. **Transparent fee basis:** ICASA should provide a detailed methodology for calculating the fee per terminal, including whether it will factor in the frequency band used, the number of terminals deployed, or the geographic areas served. This transparency will enable operators to evaluate the impact of the fee structure on their operations and ensure fairness.
2. **Affordability for underserved areas:** GPP recommends that ICASA consider fee discounts or exemptions for terminals deployed in rural or underserved areas to promote universal service. Operators often face high deployment costs in these areas, and fee relief could encourage greater investment in bridging the digital divide.
3. **Scalable fee structure:** A tiered fee model that adjusts based on the number of terminals deployed can ensure affordability for operators deploying large networks while still maintaining ICASA's revenue objectives. For instance, bulk deployment of terminals could benefit from reduced per-terminal fees to incentivise scale.

**Question 7: Kindly comment on the appropriateness of using Regulation 37 of the ICASA radio regulations to recognise ESIM licenses issued by other countries.**

GPP agrees with the use of Regulation 37 to recognise Earth Station in Motion (ESIM) licenses from other jurisdictions, as this enables seamless cross-border satellite operations, especially for mobile applications. Such recognition should, however, be contingent upon reciprocal agreements with licensing authorities in those jurisdictions to safeguard South Africa's regulatory interests. We recommend that ICASA establish data-sharing protocols and regular consultation with partner regulators to ensure compliance with South African standards and maintain service quality.

**Question 9: Please provide proposals on the role the satellite operator can play in ensuring that broadband connectivity reaches the areas of the country in terms of community networks with satellite connectivity as a backhaul. Kindly provide a regulatory solution that can be applied by satellite operators to address the shortcomings of terrestrial networks in providing to unserved and underserved areas of the country. This may include collaboration with government programs to reach out to those underserved and unserved areas of the country.**

GPP proposes that ICASA mandate coverage obligations for underserved regions, encouraging operators to collaborate with government programs and community networks to extend broadband reach. Satellite operators could provide low-cost



connectivity as a backhaul for terrestrial networks, expanding community networks in hard-to-reach areas.

We recommend regulatory solutions such as:

1. **Incentivised coverage obligations:** Offering tax incentives or reduced licensing fees for operators providing services in high-need areas.
2. **Public-Private Partnerships:** Encouraging partnerships between satellite operators and government entities to implement digital inclusion initiatives.
3. **Subsidised access programs:** Implementing subsidy programs or grant funding to reduce costs for low-income and rural populations relying on satellite services.

These approaches align with South Africa’s objectives of reducing the digital divide and enhancing connectivity in unserved regions.

#### 4. Conclusion

Global Policy Partners commends ICASA’s proactive approach to updating the satellite licensing framework and aligns with the principles set forth in the consultation document. We believe that a flexible, technology-neutral regulatory approach will bolster South Africa’s satellite industry and support the broader objectives of digital transformation. This framework will not only position South Africa as a regional leader in satellite communications but also drive socio-economic development and technological advancement across the African continent.

GPP remains committed to collaborating with ICASA and other stakeholders to ensure a regulatory landscape that reflects South Africa’s connectivity aspirations and global satellite trends.

-----END-----



# Global Policy Partners

1 Poplar Avenue  
Craigavon AH, Sandton  
South Africa, 2191

Tel: +27 83 200 1889  
E-mail: [info@gpp-consult.com](mailto:info@gpp-consult.com)  
[wydeman@gpp-consult.com](mailto:wydeman@gpp-consult.com)

Reg no: 2015/144295/07