



REF: DOTP 14/1/1

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The Chairperson  
ICASA  
350 Witch-Hazel Avenue, Eco Point Office  
Park Eco Park, Centurion  
South Africa  
FAO: Mr. Mandla Mchunu, satlicensing@icasa.org.za

Dear Sir

**THE WESTERN CAPE GOVERNMENT'S RESPONSE TO ICASA'S INQUIRY INTO THE LICENSING FRAMEWORK FOR SATELLITE SERVICES**

Please find attached hereto the response to ICASA's Inquiry into the licensing framework for Satellite Services.

The Western Cape Government's interest in this inquiry is driven by our role in economic development, job creation, and technology innovation under our *Growth for Jobs* strategy. The WCG is also a significant user of broadband services, promoting digital services and driving the digital economy. Additionally, the WCG relies on remote data collection, supports tech ecosystems, manages disaster response, and represents community interests, including protecting projects like the Square Kilometre Array (SKA).

For any further details on our submission, please contact Mr Tim Parle, Chief Director: Digital Economy in our Department of Economic Development and Tourism on [Tim.Parle@westerncape.gov.za](mailto:Tim.Parle@westerncape.gov.za) or 021 483 9406.

Yours sincerely

**DR HC MALILA**  
**DIRECTOR-GENERAL**  
**11 November 2024**

**Annexures:**

Annexure A: Response to ICASA's inquiry into the licensing framework for Satellite Services

## **Annexure A:**

### **Response from the Western Cape Government to ICASA's inquiry into the licensing framework for Satellite Services**

#### **Introduction and context**

The Western Cape Government has received the notice from ICASA ("the Authority") in the Government Gazette No. 51044 dated 14 August 2024 stating its intention to conduct an inquiry into the licensing framework for Satellite Services pursuant to section 4B of the Independent Communications Authority of South Africa Act, 2000 (Act No. 13 of 2000) ("the Inquiry").

It is noted that the stated purpose of the Inquiry is to:

- i. Determine a regulatory and/or licensing framework for Satellite Services in South Africa;
- ii. Determine the procedures that the Authority may implement for the provision of satellite services in South Africa;
- iii. Determine procedures for authorising user terminals, IoT terminals, earth station user terminals communicating with space station while in motion (ESIM/ESV), and ground earth stations in the South African territory.
- iv. Consider the need to review spectrum fees, taking also into account the increasing amount of bandwidth used by satellite systems operating in higher frequency bands.
- v. Determine procedures for registration of international satellite operators (including details of International Telecommunications Union ("ITU") coordination status of the space segment) who intend to provide a service either directly or indirectly (through existing licensed operators) to South African consumers.

The Western Cape Government appreciates the consultative approach used in this inquiry and considers itself to be an interested party. On this basis the Western Cape Government is submitting this written response, noting the deadline of 16h00 on 12 November 2024.

The Western Cape Government's submission is provided in the context of our role in / as:

- i. Economic development and job creation including the elements of technology and innovation under our Growth for Jobs strategy adopted in 2023;
- ii. Being a significant user of broadband services having contracted for nearly 2000 services at Gbps speeds servicing public sector facilities across the Western Cape province;
- iii. Promoting the uptake of digital services and driver of the digital economy;
- iv. Being a data-lead organisation, and hence relying on remote data collection;
- v. Being host to a thriving set of tech-ecosystems including those active in the aerospace sector;
- vi. Responsible for the disaster management function; and
- vii. The voice of people in communities including the Karoo.

The above list is non-exhaustive. Please note that our responses are not highly technical in nature.

The nine (9) questions raised in the Inquiry are repeated verbatim below, and complemented with our response.

**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 the above section?**

The Western Cape Government supports the principles of harmonization of standards and the adoption of global standards. As stated in the introduction to the Inquiry, Technological advances have resulted in satellites having the ability to provide broadband connectivity to large areas (including entire regions) at minimal extra marginal cost. Satellites are also adept for the provision of connectivity services to remote and rural areas and are resilient when terrestrial services have been impacted, i.e., following natural disasters on land, such as earthquakes or tsunamis. Additionally, satellite systems provide continuous and consistent services where terrestrial services cannot be provided, including earth stations affixed to ships and aircraft, known as ESIMs.

Given the above, it is imperative that South Africa is part of the global community. This will allow us to capitalise on the economies of scale that harmonization brings. The local success of technologies such as GSM (2G), 3G, HSDPA/LTE (4G), 5G, VSAT etc. are testament to this approach.

The role of the ATU to drive a harmonised response in the licensing regime is noted and supported.

**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.**

We have no opinion on this topic beyond the recommendation to adopt global standard approaches and best practices.

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

Yes. The proposed segmentation looks to follow global standards and best practices. The three-element approach is appropriate for the market.

**QUESTION 4: Please provide your comments on the proposals in the preceding paragraph and the duration of the Gateway Earth Station licences.**

The establishment of Gateway Earth Stations is a technically complex and expensive endeavour. Investments of this magnitude will only be taken by companies or institutions where there is enough regulatory certainty to do so. The latter includes certainly on telecommunications regulations but extends to general business certainty and local practices.

It is also recognized that we are dealing with a finite commodity and hence the number of Gateway Earth Stations will be somewhat limited. Regulations and regulatory instruments are required to ensure that there is fairness in the market, and that operators do not acquire licences on a speculative basis, and hence 'squat' in the space thereby crowding out other operators. Some consideration should be given to a 'use it or lose it approach' whereby the licensee must establish the infrastructure within a set period of the issue of the licence, and begin providing services by a nominated time.

Our research has found that various developed nations have periods ranging from 5 to 20 years, with 10 years being a typical value. However, the market has moved to 5 years and hence overall, a 5-year term with the option to renew seems like a balanced approach and not out of touch with that of progressive, developed markets.

Note that a more detailed analysis of the unique terms and conditions per country would need to be undertaken to understand this in more detail.

**QUESTION 5: Please comment on the above-mentioned alternative proposals to levy the spectrum fees for Gateway Earth Stations and indicate your preferred option. The Authority understands that there are 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.**

We do not have enough market insight or access to research to determine if either model represents best practice, or to determine a preferred choice. ICASA should make their research on this topic available for inspection for general consideration.

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

The overall objectives of the licensing regime should include openness, fairness, transparency, simplicity and relevance. The above approach does appear to be simple and possess some of these characteristics. However, there is a concern that the desire for simplicity and the 'one size fits all model' does not adequately consider the multitude of technical options that the FSS and MSS present. For example, the latter range from supporting potentially millions, or even tens of millions, of IoT devices or similar simple, low-bandwidth devices to supporting a much smaller number of high-bandwidth devices. The former will transmit mere kilobytes of data during the period in which the latter transmit megabytes or gigabytes of data. These cannot be viewed in the same light and have the same cost to the operator or end user.

As above, more information on global best practice would help to inform ICASA's proposals.

**QUESTION 7: Kindly comment on the appropriateness of using regulation 37 of the ICASA radio regulations (“Recognition of licences issued by other countries”) to recognize ESIM licences issued by other countries.**

Given our responsibility to promote trade and investment in the Western Cape, the support of globally accepted standard for vehicular communication (including aircraft, vessels, trains and trucks) to support the free flow of trade and logistics must be promoted.

**QUESTION 8: Please provide your comments and details of the best practices in other jurisdictions to fulfill the intentions of the Authority as indicated in the above section. Furthermore, considering the provision set out in the Astronomy Geographic Advantage (AGA) Act of 2007, and the requirements of the Radio Quiet Zone, what measures and techniques do you propose to be employed in mitigating the possible interference that may be caused by the satellites within the Astronomy radio frequency bands in South Africa?**

In our understanding of the term, the “open skies” policy in satellite communications refers to the principle of providing non-discriminatory market access for both domestic and international satellite service providers. This policy aims to create a competitive market by allowing multiple satellite operators to offer services without restrictive barriers. In our understanding, key aspects of the open skies policy include:

- Non-discriminatory market entry: Ensuring that all satellite service providers, regardless of their country of origin, have equal access to the market.
- Transparency: Clear and transparent rules and regulations governing satellite communications.
- Technology neutrality: Regulations that do not favour one type of technology over another.

This approach helps foster innovation, improve service quality, and reduce costs for consumers by encouraging competition among satellite service providers. On this basis, the Western Cape Government supports the notion of “open skies” and believe that the Authority must do what is appropriate to allow the local and regional economy to prosper.

Section 28 of the National Environmental Management Act (NEMA) in South Africa imposes a duty of care on individuals and organizations. This section requires anyone who causes, has caused, or may cause significant pollution or environmental degradation to take reasonable measures to prevent such harm from occurring, continuing, or recurring. If the harm cannot be avoided, they must minimize and rectify the damage. In exercising our duty of care, the Western Cape Government supports the need to protect the open skies above the Karoo to support the endeavours of SARAO and the SKA project (and related). This is of vital significance to our local economy, and to our position in the global scientific arena. South Africa has made firm commitments to this programme, and we must honour what has been agreed.

Similarly, section 24 of the South African Constitution guarantees everyone the right to an environment that is not harmful to their health or well-being. It also mandates the protection of the environment for the benefit of present and future generations through reasonable legislative and other measures that:

- Prevent pollution and ecological degradation
- Promote conservation

- Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

This section underscores the importance of environmental rights as fundamental human rights in South Africa. Hence, it is also the Western Cape Government's duty to make sure that section 24 of the Constitution is implemented.

**QUESTION 9: Please provide proposals on the role the Satellite operators 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 unserved and underserved areas of the country.**

The Western Cape Government has been a promoter of broadband technologies and universal access for close to 15 years. The Western Cape Broadband Strategic Framework was ratified by our Cabinet in 2011. This work led to a contract for connectivity services to over 2000 sites across the province. The initial contract was struck between SITA and Neotel (now Liquid Intelligent Technologies) in July 2014, and hence has recently reached the 10-year milestone. The broadband programme has connected 2037 sites, including 1748 at 1Gbps+ speeds. A key tenet of this contract was to extend fibre deeper into the province to enable private providers to extend services to new areas. The project also implemented over 1600 Public Wi-Fi hotspots at provincial buildings to allow communities around the connected buildings to benefit from a limited free Internet service.

The Western Cape Government is now concluding the contracts for the Broadband 2.0 project. This project aims to connect 2393 sites. While these are impressive targets, we recognize that there are locations that remain unserved and underserved, and that technologies including HTS offer great potential to fill these gaps.

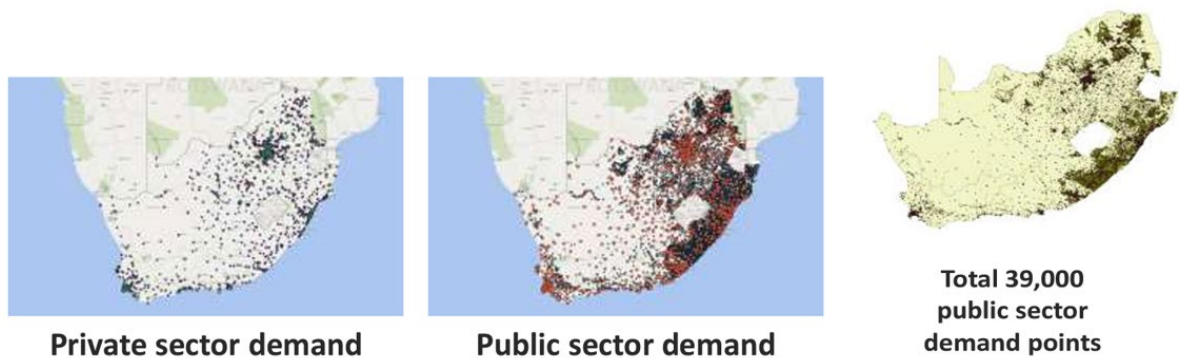
The Western Cape Government also recognizes the need for data-led decision making and applies this principle throughout our work. By extension, we aim for our citizens and businesses to make use of data for decision making. Data collection relies on extensive – and preferably ubiquitous – broadband coverage. Again, satellite technologies including HTS offer great potential here. Similarly, remote sensing combined with IoT approaches allow for informed decision making which will have bearing on our response to natural disasters, climate change and related.

The net of the above is that through the Broadband 2.0 contracts, the Western Cape Government may become an off-taker of services from FSS and MSS solutions.

The Western Cape Government also recognises that various National Government departments, SOCs, agencies and the like could also benefit from access to improved telecommunications services, and thereby add value to our citizen's lives. This is added impetus to the need for access. Services from FSS and MSS solutions could allow for high-speed broadband services to be used in Thusong centres, SASSA facilities, Police Stations, etc. across the province and across the country.

The figures below are taken from BMI-TechKnowledge's Introduction to the Portfolio Committee on Telecoms and Postal Services, from 2017. While not necessarily current, they

do show the different nature of public sector demand versus private sector demand, and the order of magnitude of the connectivity requirements in South Africa.



Overall, while estimates vary, it is generally held that access to broadband and other telecommunications services have a positive effect on economies, with a strong economic multiplier being evident. South Africa needs these services and we have entrusted ICASA as the Regulatory Authority to provide regulatory certainty to investors, both local and international. It would be better for ICASA to 'low ball' licence fees to stimulate the market, recognising that there will be 'pull through' economic benefits as a result.

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