

Eutelsat Group Comments and proposals towards New Licensing Framework for Satellite Services in South Africa

No	Consultation Questions	Eutelsat Group Comments & Suggestions
1a	These are the policy principles from the ATU that ICASA seeks to align with. Kindly provide comment(s) on the proposed policy principles.	Eutelsat Group welcomes ICASA's approach to align its domestic licensing framework with ATU's policy principles, as follows: a) Licensing process to be harmonised, as much as possible, among the ATU Member States.
		Eutelsat Group supports and encourages any efforts for regional harmonization of satellite licensing frameworks and processes in the ATU region. However, Eutelsat Group is of the view that countries may differ in their regulatory requirements based on national needs. Therefore, harmonization is recommended but it is acknowledged that frameworks for operational and licensing aspects of satellite networks must also be aligned with the strategic views of the local authorities. Eutelsat Group further invites ICASA to also consider sub-regional initiatives to promote the harmonization of satellite framework e.g. on the SADC level.
		b) Licensing of satellite networks or services provision to follow the ITU instruments and regulatory procedures that govern the use of radio spectrum and associated orbital resources.
		Eutelsat Group fully agrees with ICASA aligning with the principle that the ITU Radio Regulations and associated technical limitations, protection criteria and coordination mechanisms should be the basis for the new framework and should be fully adhered



to. Satellite services are global by nature and require global treatment and adherence to international standards and regulatory procedures.

c) Transparent regulatory frameworks with clear rules to provide for regulatory certainty to support durable investment in satellite communication technologies

Eutelsat Group commends ICASA for its efforts to adopt a transparent and relatively clear regulatory framework that recognizes the need for flexibility to accommodate the dynamic nature of modern satellite communications systems, while also seeking to ensure regulatory certainty and clarity regarding the scope of the licenses.

Providing a transparent regulatory framework will go some way towards ensuring the development of fair, predictable and clear policy and regulatory environments which will, it is submitted, encourage and support durable investment in the sector. Further, Eutelsat Group invites ICASA to consider potential future revisions of this regulatory framework based on the principles adopted by ICASA to accommodate future developments of satellite technology. Further, Eutelsat Group invites ICASA to consider potential future revisions of the regulatory framework based on the principles proposed here by ICASA to accommodate future developments of satellite technology.

d) Domestic user terminals to be licensed without the need for individual terminal-byterminal authorisation (e.g., on a blanket licensing basis).

Eutelsat Group welcomes the introduction of a blanket licensing approach for user terminals which comply with predefined technical and operational characteristics. The practice of issuing single licenses ("blanket licenses") that cover a group of User Terminals for satellite networks has been implemented by many regulators around the world will relieve ICASA from unnecessary regulatory workload/burden and provide for the possible acceleration of the rollout of services including rural, remote and under-served or unserved areas which would help in bridging the digital divide.



e) Member States to take appropriate actions to publish in a timely manner, procedures for authorizing user terminals operations in their countries.

This initiative by ICASA with respect to consulting on the Proposed New Licensing Framework for Satellite Services is acknowledged as an ATU Member State taking appropriate action to seek to establish, inter alia procedures for authorising user terminals operations in South Africa. This initiative by ICASA with respect to consulting on the Proposed New Licensing Framework for Satellite Services is acknowledged as an ATU Member State taking appropriate action to seek to establish, *inter alia*, procedures for authorising user terminals operations in South Africa. It is appreciated that having clear, transparent and flexible statutory authorization procedures including clear timing with respect to the steps and requirements in the process is key to providing regulatory stability / certainty to satellite network operators and service providers, encouraging potential investment and services provision in the Republic of South Africa.

f) Designation of the relevant frequencies for use by satellite user terminals on a domestic, regional, or international basis consistent with Radio Regulations frequency allocation Table;

Eutelsat Group strongly supports an approach of designation of relevant frequencies for use by satellite user terminals on a domestic, regional, or international basis consistent with the Radio Regulation Frequency Allocation Table as published by the ITU. This supports the unification of allocations and enables the development of equipment and technology and the benefits of economy of scale through consistent domestic, regional and / or international frequency designations. Eutelsat Group invites ICASA to also consider other sub-regional initiatives in Region 1, in designating applications based on Radio Regulations Frequency Allocations.

g) Reasonable spectrum fees, taking also into account the increasing amount of bandwidth used by satellite systems operating in higher frequency bands.



Eutelsat Group is of the view that satellite operators should bear the responsibility for diligent efforts to use the spectrum allocated to satellite services in an efficient manner, and that imposing spectrum fees based on bandwidth may not be the appropriate measure to ensure its efficient use given the fact that modern high throughput satellite systems are no longer providing MHz capacity to users. Instead, they provide Mbps under a managed capacity approach proven more efficient in addressing customer needs and spectrum utilisation. Having spectrum-based fees may impose unnecessary constraints and may conflict with modern satellite capacity offerings given the fact that the spectrum is shared among different service providers. Having spectrum fees based on bandwidth which would generally apply to exclusive allocations will also be difficult to implement equitably.

Further, what constitutes a "reasonable fee" may still be subjective and may contradict with the principle of harmonization and transparency aimed at by ICASA. Therefore, Eutelsat Group rather proposes using the blanket license approach for User Terminals, with a flat fee, instead of spectrum fees based on bandwidth for satellite services characterized by using large bandwidth.

Adjusting licensing related fees in accordance with the changing requirements and technologies utilized by the satellite industry would assist in enabling the provision of more affordable products and services. It is thus important to adapt licensing pricing policies to provide reasonable fees that would encourage innovation and competition, ultimately benefiting consumers and helping in bridging the digital divide.

1b Comments on further recommendations listed in the above section.

Eutelsat Group would like to suggest the following changes with regards to the proposed definitions in the Consultation paper:

Coordination: it is submitted that the definition needs to include reference to Article 11 of the ITU Regulations, so please insert: "and as described in Article 11 of the ITU



Radio Regulations with respect to obtaining coordination agreement from affected administrations / networks" after "Article 9".

Earth Station in Motion (ESIM): it is proposed to amend the definition of ESIM to include all types of Earth station that can be used by User Terminal, thereby we propose the following:

Earth Station in Motion (ESIM): Earth stations or User Terminals placed on moving platforms that communicate with geostationary-satellite orbit (GSO) or non-GSO systems operating in fixed satellite service (FSS) including Earth Station on board vessels (ESV) and Aircraft Earth Station (AES)

Gateway Earth Stations: It is proposed that the definition of Gateway be replaced with the following: "**Gateway Earth Stations** are the RF front and act as feeder links for satellite capacity which may or may not include processing traffic of the satellite network."

Landing Rights: It is proposed to remove the inclusion of satellite broadcasting television content from the obligation to obtain Landing Rights, as broadcasting signals are not directed towards a single country. Considering further that ICASA is proposing an exemption from licensing for DTH satellite user terminals (section 9 point d) on p. 22), Eutelsat Group proposes either exempting such services and terminals from Landing Rights or alternatively, including the following phrase: "broadcasting television content in the emission direction (Earth to Space)" in the definition.

Eutelsat Group understands that Landing Rights are not required based on the new innovative principle detailed in the Satellite Framework and which ICASA is willing to apply as per Section 10 which replaces Landing Rights with a "Registration of Space Station Network to the Authorized List of Space Stations (ALOSS)", therefore Eutelsat Group proposes to replace the Landing Rights definition with a definition of ALOSS as follows:



Authorized List of Space Stations (ALOSS): is a registration process adopted by ICASA that applies to all foreign satellites communicating with earth station(s) located in the territory of South Africa. Notification (ITU): It is proposed that the phrase: "as per art. 9 and 11 of the ITU Radio Regulations" be inserted at the end of the proposed definition. Moreover, it is proposed that the following definitions be added: Radio Quite Zones: Eutelsat Group proposes to add at the end of the definition the following sentence: "... for frequency bands allocated or adjacent to radioastronomy service bands". Satellite Capacity: It is proposed that the following addition "and/or megabit per second" is inserted in the definition after "quantified in hertz". Space Segment: It is respectfully submitted that the definition of Space Segment needs to be replaced with a definition that accurately defines it. So, the following wording is proposed: Space Segment: refers to Satellite or Satellite constellation network operating in space to communicate with its associated Ground Segment. Terminal: Eutelsat Group proposes to amend the definition and the naming of the term as it is used further in the document as follows: User Terminal: is an Earth Station or group of Earth stations communicating with a satellite network or satellite constellation in space to access services. Do you agree with the exclusions of radio navigation satellite services, It is noted that this Consultation is only applicable to Fixed Satellite Services (FSS) Mobile Satellite Services (MSS) and Broadcasting Satellite Services (BSS), while radio 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.

navigation satellite services, amateur satellite services, earth exploration, and space research satellite services are not in the scope.

Eutelsat Group believes that the inclusion of these services is essential and that they should be covered – at least as a minimum with regards to the principals, e.g. the requirement to operate in accordance with ITU regulations. If such services are not included under the scope of this licensing framework, provisions are needed to address the cases of conflict and/or interference resolution processes.

Furthermore, clarification will be required as to what framework, and regulations will govern the licensing, provision, maintenance, end user supply and governance of such satellite services if they are to be excluded from the ambit of the new proposed satellite licensing framework.

For the Table provided in Section 5, on p. 14 of the Consultation paper, which includes the radiofrequency bands used by satellite services, Eutelsat Group proposes adding the frequency band 13.75 – 14GHz allocated for GSO and NGSO FSS services and the frequency bands that are subject to HD FSS identification as per ITU RR No. 5.516B.

Further, Eutelsat Group notes that the C-band frequencies (3400-4200 MHz, 4500-4800 MHz, 5091-5250 MHz, 5850-7075 MHz and 7250-8400 MHz) are not included, thereby we would propose the inclusion of these bands under the scope of this Inquiry.

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.

Eutelsat Group agrees with ICASA's proposal to introduce separate licensing for each segment of the satellite communication value chain. Further, Eutelsat Group has the following comments:

For Satellite Gateway Earth Station license, Gateway Earth Stations are identified as hubs that connect satellite networks to terrestrial networks. Eutelsat Group proposes to change the definition to RF interface to reflect the principle of separation between licenses. Alternatively, ICASA may consider using both terms, as follows: Gateway Earth Stations are hubs or RF interfaces.



Eutelsat Group will provide comments with respect to the separate segment licenses separately under the respective questions, as follows: For the Gateway Earth Station licences, kindly note feedback provided under Q4; For Satellite User Terminals, kindly note feedback provided under Q6; For the Registration of the Space Segment, kindly note feedback provided under Q8; Eutelsat Group welcomes the introduction of a new licensing category applicable to Please provide your comments on the proposals in the preceding satellite Gateway Earth Stations that would allow license holders to install and paragraph and the duration of the Gateway Earth Station licences operate an in-country Gateway. This will open the market for the Republic of South Africa to host the deployment of Gateway Earth Station infrastructure for the purposes of providing satellite feeder links, TT&C, etc. It is noted that the applicants or holders of the Gateway Earth Station license are eligible to be treated under the Private Electronic Communications Network (PECN) license regime. The PECN license regime is understood to be a license exempt regime, and this gives rise to some uncertainty with respect to the potential licensee requirements and obligations. Section 7 does not deal with or set out the provisions or obligations that are currently generally applicable to individual electronic communications licensees in South Africa, inter alia: do the following requirements apply and if yes, how and to what extent, for the eligibility to apply for this license: 1) requirement to be a locally registered company, 2) requirement to have a physical local presence (noting that management and operation of a Gateway can be effected remotely with a local third-party provider for onsite support and service as may be required) 3) ownership and control restrictions requiring the participation of any specific group

or shareholding.

Eutelsat Group understands and agrees that this license should be separate from any network/service license and does not entitle the holder to provide any



telecommunication service directly to end-users. Eutelsat Group further understands that direct broadcasting services to end-users are exempted from licensing.

Eutelsat Group understands that Gateway Earth Station license is applicable for cases of deployment in South Africa territory and other Gateway Earth Stations for the same network that are deployed outside South Africa territory should not be subject to license under this regime. However, for cases of multiple Gateway Earth Stations associated with the services offering in South Africa, we believe that a recognition of the Gateway Earth Stations outside South Africa could be addressed under ECNS or ECS licenses for cases of satellite operators having a Gateway Earth Station outside South Africa and providing services to end-users within the territory of South Africa.

Moreover, it is not clear what license is being referred to as "service link licenses" at the end of the second paragraph on p. 20 of the Consultation paper. It is understood that service provision to end-users in country would be covered under an ECS / ECNS license issued to the local licensee providing end user services in country. Eutelsat Group would like to request that clarity be provided as to the "service link licenses" application and requirements.

In addition, Eutelsat Group would like to obtain more information on the respective rights and obligations as well as proposed application, timeframes and annual operation or licensing and renewal fees.

Eutelsat Group fully agrees with the finding of the DOTECON Report captured by ICASA however, Eutelsat is of the view that the proposed license duration may not reflect the long-term investment required for such type of infrastructure, and we would instead recommend extending the validity from 5 years to 10 years which is a term more in line with the general lifespan of satellites being launched or preferably for the lifespan of the satellite or satellite constellation. The predictability and certainty of a longer term will help potential entrants justify the significant upfront and operational expenses associated with the deployment of ground earth stations and for the long-term investments associated with such deployments.



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

Eutelsat Group commends ICASA for proposing to review the applicable spectrum pricing formula, for what we understand to be an annual fee, recognizing that it has proved to be unsustainable considering the large amounts of spectrum required especially by modern satellite systems.

Eutelsat Group is of the view that to meaningfully evaluate and comment on the appropriateness of the proposed fee structure, it is necessary to have an indication as to the unit pricing and the "Rul" (minimum fee for satellite uplink connections) that is being considered by ICASA under the first proposal.

In any case, Eutelsat Group believes that the second proposed alternative is preferable to address the Gateway fees, as it seeks to revise the fees for all frequency bands. It is noted that alternative 2 does not provide a formula for calculation of the fees and Eutelsat Group requests confirmation that the formula as assumed and provided below accurately reflects the calculation of the fee as would be applicable under alternative 2:

Gateway Station Fee = **BW** (in MHz) * unit price based on the frequency bands.

Eutelsat Group would further request clarification as to the Bandwidth factor included in the Fees Table in the third column "Amount in rands per MHZ paired", it being understood that ICASA should be charging for the Gateway Station Fee with respect to the spectrum for the uplink (Earth to Space) and not for bi-directional paired spectrum.

Eutelsat Group supports ICASA's proposal to apply the spectrum fee per license and not per Earth Station, recognizing that modern satellite networks may use a cluster of Earth stations operating under a single network, communicating with the same satellite system and co-located in one location. Eutelsat Group would further advice ICASA to define what would be considered as "one location" to provide more clarity.



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. With respect to the conditions for registration with the Authority to obtain a Radio Dealer Certificate, the requirement for the licensee to be a registered entity in South Africa would exclude for example embassies or collectives that may not be registered entities for example lose associations of individuals with a common interest in radio technology or a private individual seeking a private, non-commercial, service or to personally import and install equipment from being able to obtain the license required for importation and installation of satellite user terminal equipment in South Africa. It is submitted that this category should remain open to individuals or unregistered entities / collectives on an individual case by case basis. Eutelsat Group further invites ICASA to consider enabling the possibility for foreign service providers (entity not registered in South Africa) to apply for a Radio Dealer Certificate.

Eutelsat Group fully supports the proposal to implement blanket licensing for satellite terminals to allow for scalability, reduce regulatory complexity and the administrative burden of having to apply for multiple individual licenses on a per satellite terminal basis. The practice of issuing single licenses that cover a large number of user terminals which comply with certain technical and operational characteristics is followed by many regulators around the world and will relieve ICASA from unnecessary regulatory workload. However, Eutelsat Group is also of the view that the case of individual licensing should be retained as a possibility for certain applications such as corporate networks (offices, mining, etc.).

Eutelsat Group further supports the license exemption for ESIMs mounted onboard foreign aircraft, during transit or temporary visit in South Africa and would like to request that the exemption be extended to ESIM's onboard vessels during transit or temporary visit to South Africa.

Regarding the proposed fee structure that appears to be relevant to the number of terminals deployed, we would like to raise the following:

If the intention is to encourage and support the growth of competition in the market and of satellite services and use access, then it is recommended that a flat fee be



applied to all terminals, irrespective of the number of terminals, as applied by Saudi Arabia for NTN networks,¹ as there should not be a higher fee for a lesser number of terminals supported by a licensee, which would represent a barrier to entry for smaller players and a point in which regulatory action will exacerbate the difficulty experienced by market entrants and smaller operators / service providers.

With respect to the number of terminals in the table, the \leq 100 and \geq 1000 need to be amended with the deletion of the "equals too" symbol as the current description of the categories would have 100 terminals falling under both categories A & B and 1000 terminals falling under both categories B & C.

Alternatively, if the flat fee proposal is not accepted, we would like to refer ICASA to the draft framework proposed by Nigeria Communications Commission, and to Ghana's National Communications Authority satellite licensing framework² which could serve as a benchmark for a per satellite terminal fees approach. It is submitted that the potential growth of IoT will see a significant increase in terminal numbers utilizing minimal spectrum and generating minimal revenues for licensees. In this context, it is submitted that the fees for the higher number of terminals should be significantly reduced as these numbers of terminals would be achieved only with the introduction and uptake of IoT into the future which would not generate the revenues to sustain the per satellite terminal fees being proposed.

However, it must be noted that this licensing approach may be difficult to implement practically, and would result in the introduction of a significant annual licensing fee where for example - as sometimes happens - terminals are only activated for a short period of time in a year, with subscriptions being applicable on a monthly basis and as a result there may be a disproportionate fee compared to revenue generated by such terminal in a year. This will also add an administrative burden on reporting the number of terminals that may materially vary on a monthly basis.

¹ See <u>here</u> the regulatory framework applicable in Saudi Arabia.

² See <u>here</u> the Satellite Licensing Framework proposed by Ghana



To conclude, for the spectrum fee values for the use of terminals, Eutelsat Group strongly recommends the adoption of a blanket license approach instead of spectrum fees in which the services activated through the user terminals are offered in a managed type i.e. Megabit/sec, whereby spectrum is shared among multiple user terminals for a single use. The blanket license approach addresses this issue without the need to add spectrum fees. Kindly comment on the appropriateness of using regulation 37 of the Eutelsat Group supports the non-objection approach for foreign ESIM/ESV/AES ICASA radio regulations ("Recognition of licences issued by other onboard aircrafts, vehicles and vessels passing through South Africa airspace, land or countries") to recognize ESIM licences issued by other countries waters territories. Eutelsat Group invites ICASA to consider the possible inclusion of such exemption/non-objection directly (explicitly) in the new satellite regulatory framework to be issued by ICASA, i.e. include for not having to submit a non-objection request if the ESIM/ESV/AES meets and complies with relevant ITU limits and transits / passes over or remains in the territory of South Africa for a limited period (possibly set this period at 6 weeks or 30 days). Eutelsat Group further invites ICASA to consider the possible recognition of limits imposed by other regional groups on ESIM/ESV/AES registered by this region, for example CEPT, ECOWAS, CRASA ... etc. Eutelsat-Group is of the view that Space Stations operating ESIM/ESV/AES onboard aircraft, vehicles and vessels should not be subject to the proposed Registration of Space Station Network (ALOSS), as the use case does not involve the provision of any land-based services.



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. (Space Segment Authorisation)

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?

Eutelsat Group endorses the view that having an "Open Skies" policy offers the conditions for open, non-discriminatory and competitive access to markets and allows for increased availability of orbital resources. Satellites are launched and authorized by the satellite operator's home administration and therefore, there is no need for an additional authorization applicable to the space segment per se. In this light, Eutelsat Group commends ICASA for not adopting a Landing Rights regime.

Eutelsat Group supports ICASA's proposal for the introduction of a simple registration model aiming to record space station networks in the "Authorised List of Space Stations (ALOSS)", to be used by licensed service providers in-country for the provision of services. In which, no local representation or legal presence is required and a once-off nominal fee that may be levied solely on an administrative cost-recovery basis. The proposal that this registration could be equivalent to the lifespan of the satellite system and will have to be updated within four months in case there is a change is welcomed

Eutelsat Group, given the dynamic nature of operation of Satellite networks especially in NGSO orbits, invites ICASA to consider defining the replacement trigger to notify ICASA for changes in the satellite system to be limited to cases that may have an impact on services provided in South Africa and/or ITU recording.

ICASA clarifies that the satellite downlink is not subject to protection in South Africa, unless the associated receiving earth stations have been individually licensed, Eutelsat Group understands that this case is applicable for protection against other networks in South Africa with respect to the receiving earth station(s) specific location(s) and on national basis i.e. not implemented against ITU recorded networks in the Space to Earth direction. Eutelsat Group seeks ICASA's confirmation of the accuracy of this understanding.

Eutelsat Group strongly commend ICASA for recognizing that the requirement to have a local Gateway in the country puts an unnecessary burden on the space station



operator and should not be mandatory requirement for the provision of in-country services

However, we would also like to highlight our understanding of the requirement with respect to satellite operator's obligation to ensure compliance with RICA is only applicable when the satellite operator intends to provide retail services directly to end users. Alternately, we understand that there would not be a requirement on the satellite or space station operator to ensure compliance with RICA where service is provided to the end user through already licensed I-ECNS / I-ECS license holders that would be required to comply with and have in place processes to comply with RICA, and such information and the corresponding requirements can only be clarified during the space station provider's contract negotiations with the service provider licensee where the capabilities of both parties need to be utilized to provide the best solution for RICA compliance.

Consequently, Eutelsat Group agrees with ICASA that the Registration of Space Station networks (ALOSS) should not be subject to compliance with RICA unless the space station operator intends to provide retail services directly to end-users.

Eutelsat Group is of the view that any measures or protection techniques for any services should be based on limitations and protection criteria defined by the ITU Radio Regulations and should define a clear implementable method to ensure the protection of the affected services based on this limitation. Thereby, we invite ICASA to keep alignment with ITU Radio Regulations in addressing measures and techniques to be employed in mitigating the possible interference that may be caused by satellites within the Astronomy radio frequency bands in South Africa.

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

"Roll-out" obligations are a regulatory measure typically used to address the shortcomings of terrestrial operators, which tend to focus their network deployment on revenue-generating areas.



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.

In contrast, satellite plays a key role in ensuring better coverage of the surface area of a country irrespective of topography and infrastructure availability on the ground and can play a significant role in bridging the digital divide by complementing terrestrial networks and helping them extend their reach to underserved, remote areas. It is respectfully submitted that any service rollout obligations cannot be vested upon the satellite operators who do not hold licenses authorizing service provisioning to end users in country. Eutelsat Group submits that introducing such requirements would act as a burden and obstruct the efficient deployment of satellite networks. Instead, a more flexible and supportive regulatory framework should be established, focusing on facilitating deployment of satellite networks to address coverage gaps and enhance connectivity for unserved or underserved areas. This approach will enable satellite operators to contribute to bridging the digital divide effectively and ensure that their services are available to everyone.

Besides, satellite operators such as Eutelsat Group which does not hold a license to provide retail services to end users in South Africa cannot practically undertake any in-country rollout obligations as it does not directly provide services to end-users. Satellite operators can undertake cooperation with local licensee holders (I-ECS/I-ECNS) to enter into contractual relations with satellite operators who provide the satellite / space segment capacity / platform.