ICT 2025 – [1] – Draft Determination Proposed Framework for the Licensing of Satellite-Based Telecommunications Providers



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# A. Introduction

- 1. The Utility Regulation and Competition Office (the 'Office') is the independent regulator for the electricity, information and communications technology ('ICT'), water, wastewater and fuels sectors in the Cayman Islands. The Office also regulates the use of electromagnetic spectrum and manages the .ky Internet domain.
- 2. Different decisions by the Office will affect persons and organisations throughout the country in different ways. It is therefore important that the Office makes decisions with the appropriate input from persons with sufficient interest or who are likely to be affected by the outcome of such decisions. Consultation is an essential aspect of regulatory accountability and transparency and provides the formal mechanism for these persons to express their views in this manner. The requirement for the Office to consult is mandated in its enabling legislation.
- 3. The purpose of this consultation is to seek the views of affected stakeholders, the general public, and other interested parties, regarding a draft determination on a framework for the licensing of satellite-based telecommunications service providers.

# B. Background

- 4. The Office has been contacted by a number of parties who have expressed interest in the Office permitting the licensing and use of satellite-based telecommunications services including from international satellite service operators, global satellite operator associations, local businesses, the general public, ICT licensees and CI Government entities.
- 5. On 21 November 2024, the Office issued "ICT 2024 2 Consultation on the Framework for the Licensing of Satellite-Based Telecommunications Providers"<sup>1</sup> (the '**initial consultation**').
- 6. The initial consultation established some of the issues associated with introducing a framework for licensing satellite services and asked a number of questions, seeking feedback from stakeholders as to their views on the associated challenges.

<sup>&</sup>lt;sup>1</sup> See ICT 2024 – 2 - Consultation on the Framework for the Licensing of Satellite-Based Telecommunications Providers, published on the Office's website: <u>https://www.ofreg.ky/viewPDF/documents/2024-11-29-19-35-02-Consultation-Paper-on-Licensing-of-Satellite-Services-2.pdf</u>

- 7. This Consultation takes into account the responses received to the initial Consultation and presents the Office's Draft Determination based on those responses and its further considerations with regards to the licensing of satellite services and is hereby seeking further stakeholder feedback on its proposals prior to issuing a final determination on licensing.
- 8. Submissions to the initial consultation<sup>2</sup> were received from the following respondents:
  - Dart-IT
  - Digicel Cayman Limited (T/A 'Digicel')
  - Eutelsat Group ('Eutelsat')
  - Cable and Wireless (Cayman Islands) Limited (T/A 'Flow')
  - Global Satellite Operators Association ('GSOA')
  - Kuiper Systems LLC ('Kuiper')
  - Rivada Space Networks ('Rivada')
  - Satelio IoT Services, S.L. ('SatelloT')
  - Starlink Cayman Islands Ltd. ('Starlink')
  - Viasat
  - WestTel Limited (T/A 'Logic')
- 9. The responses are summarised in this document and the full text may be accessed via the link provided in the footnotes below.
- 10. In the ensuing text we refer to those who provide connectivity (whether voice, data, or internet) via satellite as Satellite-based Service Providers (SSP).
- 11. In some cases, the comments provided by respondents to a particular question were more applicable to or included response to another question. Where this is this case, the comment has been noted but in response to the question where it is most reasonably appropriate.

<sup>&</sup>lt;sup>2</sup> See Responses to ICT 2024 – 2 - Consultation, published on the Office's website: <u>https://www.ofreg.ky/viewPDF/documents/2025-01-10-15-04-26-Responses-to-ICT-2024---2---</u> <u>10-January-2025-1-.pdf</u>

# C. Legal Framework

12. Section 6 of the Utility Regulation and Competition Act (the 'URC Act') requires OfReg, amongst other things:

(b) to promote appropriate effective and fair competition;

(c) to protect the short and long term interests of consumers in relation to utility services;

(d) to promote innovation and facilitate economic and national development;

13. Section 7 of the URC Act, requires the Office to:

Prior to issuing an administrative determination which, in the reasonable opinion of the Office, is of public significance, and subject to specific procedures under sectoral legislation, the Office shall —

(a) issue the proposed determination in the form of a draft administrative determination;

(b) allow persons with sufficient interest or who are likely to be affected a reasonable opportunity to comment on the draft administrative determination; and

(c) give due consideration to those comments with a view to determining what administrative determination (if any) should be issued.

14. Section 62 specifically provides the Office with:

a duty to promote innovation within the sectors for which it has responsibility with a view to contributing to national economic competitiveness and development

15. Further, Section 9 of the Information and Communication Technology Act (the 'ICT Act') states that among the purposes and principal functions of the Office include:

(2)(a) allocate the electromagnetic spectrum for facilities and specified services within the Islands, or between the Islands and elsewhere;

(2)(c) issue licences authorising the use of specified portions of the electromagnetic spectrum, including those used on any ship, aircraft, vessel or other floating or airborne contrivance or spacecraft registered in the Islands;

(3)(a) to promote competition in the provision of ICT services ant ICT networks where it is reasonable or necessary to do so;

(3)(d) to determine the categories of licences to be issued under this Law [...]

# D. Draft Determination

- 16. The Office is proposing the following:
  - The introduction of a new class of major ICT licence: (Type H) Satellite Service Provider (SSP). All rules and requirements associated with terrestrial licensees (including the payment of fees, legal intercept and outage reporting) will apply with the exception of:
    - the requirement to peer with other terrestrial operators to keep all locally generated and terminated telecommunications traffic onshore. This will only be required for SSP licensees who have the necessary infrastructure to effect it.
  - Spectrum fees for Type H licences will be levied on a 'per channel' basis, where a channel is defined as follows:

Frequency Range	Channel Size
Below 470 MHz	12.5 kHz
470 MHz – 7.125 GHz	5 MHz
7.125 – 37 GHz	28 MHz
Above 37 GHz	100 MHz

- The application fee for a Type H licence shall be CI\$3500.00 and the renewal fee shall be 50% of this value, as it is currently for other ICT service provider licences.
- The licensing of Very Small Aperture Terminals (VSAT) associated with the provision of a service by an SSP will be included within the SSP licence. Any VSAT used for connectivity other than through a licensed SSP will still require a Type E1 or Type E2 licence as per the current regulations.
- Introduction of a definition of the (Type 9) Internet Service Provider licence to provide clarity and distinction between licence types, as follows:

- "The provision of internet (or other data) services to homes or businesses through wireline, wireless terrestrial or satellite means"
- The introduction of a new class of ICT service: (Type 17) Connectivity Service Provider. This would cover the provision of private end-to-end connectivity (voice or data), i.e. which is not connected to the PSTN or Internet.
- The application fee for a Type 17 licence shall be CI\$1500.00 and the renewal fee shall be 50% of this value. Licensees already providing this service shall have their licenses modified to include this service type without a fee.
- E. The Office's Consideration of the Responses to the Initial Consultation Questions
- E.1 Question 1: Should OfReg introduce new licence types to facilitate the specific licensing of satellite-based services?

# Responses

- 17. Most respondents felt that a separate class of licence for satellite services would be beneficial in permitting the tailoring of the licence to the specifics of satellite-based service delivery
- 18. Amongst the comments made with regards to the possibility of a satellite specific licence, the following points were raised:
  - SatelloT stated that having a stand-alone satellite licence class would reduce regulatory ambiguity and address the distinct operational and technical characteristics of satellite networks.
  - Starlink suggested that there should be no voice related requirements (such as 911 calls) for service providers who did not provide voice-based services (e.g. they only provide internet or data services).
  - Viasat urged the Office to include requirements on space sustainability in any licences issued to an SSP.
  - Kuiper and GSOA suggested that a 'light touch' framework should be used, which in their view minimised the regulatory burden on SSPs.



- Digicel wished to ensure that any terms and conditions which were included in any licence for an SSP should be no more advantageous than for terrestrial operators.
- Dart-IT pointed out that having distinct satellite licenses would increase consumer choice. Whether licensed on a separate basis, or using existing licensing types, the licensing of SSP will bring about increased choice for consumers.
- 19. A few respondents did not feel that a new class of licence (or indeed any licence) was necessary:
  - Viasat stated that no licence should be required, only that those wishing to provide a service should simply register with OfReg.
  - Starlink and Rivada both suggested that any licensing should apply to ground-based activities only and not to anything space-borne.
  - Flow and Eutelsat proposed that no new licence type was required, but that licences should be technology neutral and thus the existing licence types could be used.

- 20. It is possible that the existing licensing framework could be used to enable the licensing of satellite services, however it would require a very broad interpretation of the categories of licence which are set out in the section 23(2)<sup>3</sup> notice as published by the Office. For example, a 'fixed wireless access' licence could, in theory, be used to licence the delivery of connectivity via satellite to fixed users (such as homes and businesses) however the internationally recognised definition of fixed wireless access is a service in which connectivity to properties is made from terrestrial towers and not satellites and it would therefore miscategorise the kind of service that is offered by the SSP. As such, the Office questioned whether it would be sensible to introduce a class of licence which is specific to satellite-based services due to the impracticality of attempting to apply existing licence types to networks and services that did not contemplate SSPs when they were implemented.
- 21. With regards to space sustainability, the Office recognises the need to support such initiatives however the Office does not believe that including such requirements in a licence to provide services to the Cayman Islands

<sup>&</sup>lt;sup>3</sup> See Section 23(2) Notice published on the Office's web-site: <u>https://www.ofreg.ky/viewPDF/documents/2024-11-21-09-14-47-The-Utility-Regulation-And-Competition-Office.-G22-S117.pdf</u>

is an appropriate place to state them. The International Telecommunications Union ('ITU')<sup>4</sup> and the United Nations Office for Outer Space Affairs ('**UNOOSA**')<sup>5</sup> are already taking steps to develop requirements in this respect and the Office will apply any internationally agreed rules or regulations it is required to abide by.

- 22. Concerning the option of light licensing or requiring simple registration rather than a licence, whilst the Office will not intentionally place unnecessary and unfair regulatory burden on an SSP, there nevertheless needs to be appropriate regulatory oversight to services and networks offered in the Cayman Islands. The regulatory framework governing the Cayman Islands (e.g. the URC and ICT Acts) mandates that all ICT service providers obtain a license. Therefore, a registration-only system for SSPs would not comply with the jurisdiction requirements.
- 23. The principles applied by the Office to licensing of ICT services encompass *technology neutrality* (e.g. mobile service providers are free to operate 2G, 3G, 4G or 5G in their licensed spectrum with minimal oversight from the Office). That being said, the principle of *service neutrality* is not generally applied. For example, broadcast services are licensed separately, and with different terms and conditions, compared to telephony, aircraft or amateur radio services. Recognising the specifics of different services helps to better ensure that any regulations applied to them are appropriate, proportionate and applicable.
- 24. While the Office recognises the argument for a technology-neutral approach, we find that the unique characteristics of satellite-based service provision justify a distinct licence class. The technology deployed, investment necessary to do so, cross-border considerations, the nature of satellite networks used for the delivery of satellite-based services, and the international rules which will surround them is different to that used to provide terrestrial fixed or mobile services, even though the service provided to the end-consumer is similar.
- 25. With regards to only licensing ground-based elements of the service, the Office recognises that it is not in a position to apply any rules to the spacebased elements of satellite service provision as the satellites concerned are not within the jurisdiction of the Cayman Islands. However, the application of regulations to the provision of a service or use of spectrum in the jurisdiction, or to the equipment required to connect to the service is within the remit of the Office.

<sup>&</sup>lt;sup>4</sup> <u>https://www.itu.int/space-sustainability/</u>

<sup>&</sup>lt;sup>5</sup> https://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-spaceactivities.html

26. The principle that the conditions associated with any licence for satellite operators should be no more advantageous than those for terrestrial services is reasonable with reference to the delivery of services to consumers. The Office recognises that terrestrial providers have made significant local investment in the infrastructure used to deliver services and wish to protect that investment. At the same time, satellite operators have made significant investment in their space-based networks and wish to leverage that infrastructure as best as possible. The Office aims to ensure, as far as possible, that all service providers are treated equally to the extent that it is feasible to do so based on the method of service delivery.

# Conclusions

- 27. The Office agrees with the majority of respondents that a separate licence type for an SSP is necessary in order to reflect the specific service, network and regulatory differences presented by the delivery of service by satellite as opposed to terrestrially.
- E.2 Question 2: In what way should OfReg approach the issues associated with the fact that the provision of some parts of a satellite service occur outside its jurisdiction?

#### Responses

- 28. The majority of respondents recognised the difficulties of regulating satellite services when some elements of the service are outwith the jurisdiction. Notwithstanding this, many also expressed that the extra-territorial nature of satellite services should not materially impact any requirements or obligations compared to those applied to terrestrial services.
- 29. Some of the comments made were:
  - GSOA suggested that only ICT services (i.e. those delivered to end users) should be licensed and that the method or technology of delivery of that service should not be a consideration.
  - Both GSOA and Starlink indicated that it is possible to provide lawful intercept and that, as such, there is no reason that this requirement should not be obligatory.

- Rivada and Starlink both indicated that it was possible to provide some outage information but that it can be difficult to ascertain how outages of particular elements of the satellite network (including ground stations) may impact users in a specific country and that it was therefore difficult to be specific concerning how users in the Cayman Islands might be affected.
- Flow and Logic both stated that whatever rules apply to terrestrial licensees should be reflected in satellite licences to remain technology neutral.
- Kuiper suggested that OfReg should avoid applying all regulatory requirements to foreign-licensed satellite operators.
- Digicel, SatelloT and Dart-IT suggested that where there were requirements which were complex for satellite services to provide, OfReg should apply best-effort clauses where jurisdictional limitations exist.
- Dart-IT suggested that it should be the responsibility of providers to clearly inform subscribers of the limitations of their service where this might differ from their expectations based on terrestrial service provision.

- 30. The Office recognised that as many of the elements of the satellite networks which could provide a service by SSPs fall outside the jurisdiction of the Cayman Islands, there may be some aspects of current licensing which may not be able to be legally enforced, based on current rules, particular:
  - **Outage notification**: notifications to the Office (and subscribers) in the event that there were any planned or unplanned outages of the service applying the current methodology and thresholds.
  - Lawful Interception: The obligation pursuant to the ICT (Interception of Telecommunications) Regulations to provide interception of messages upon the issue of a warrant by the Governor. This emphasizes the requirement for licensing of a local entity in order for the rules to be imposed on and enforced against if necessary.
- 31. Whilst an approach which only considers the delivery of the service to an end-user may appear reasonable, there is still a need to regulate VSATs which connect to the satellite service and the use of the radio spectrum

and as such, a light licensing or registration only method of licensing would not meet regulatory requirements.

- 32. Although transparency is important, service providers may be reluctant to highlight service limitations that could put them at a competitive disadvantage. Nevertheless, in the interest of the consumer, the Office must and will ensure that SSPs make clear what the limitations of the service may be so as to ensure that consumers fully understand what to, and what not to, expect in terms of service delivery.
- 33. The use of best-effort clauses may seek to guide licensees towards specific outcomes. In practice however, they hold no regulatory power and may be easily ignored.

#### Conclusions

- 34. Issued SSP licences will make clear that where conditions are not appropriate to the service being provided (e.g. 911 calls for data- or internet-only service providers), the appropriate clauses would not apply.
- E.3 Question 3: What models of service licensing would be most appropriate for OfReg to consider?
- 35. This question particularly addressed the requirements for those providing SSP services to be registered companies in the Cayman Islands, have Caymanian participation, and the extent to which current national regulatory provisions should apply.

#### Responses

- 36. Responses varied from those who felt that it was essential to require a local company to be established to those who suggested that non-Caymanian companies, or those only with an international presence should be directly licenseable.
- 37. SatelloT summed up the situation by stating that requiring providers to establish a local presence through a Cayman-registered entity was necessary as it ensures compliance with national regulatory obligations including aspects which are not directly related to the provision of telecommunication services such as consumer protection and fair competition.

- 38. Starlink, Digicel, Dart-IT and Logic all had similar opinions and suggested that a local company needed to be established. As evidence of this being common practice, Logic provided a few examples (i.e. Haiti, Bahamas and Trinidad & Tobago) where one particular SSP had established a local subsidiary. Others, including GSOA and Kuiper wished for the Office to permit non-Caymanian companies to hold an ICT licence.
- 39. Other comments made in this regard:
  - Rivada suggested that fees for satellite licensees should be different to terrestrial providers to reflect the different service models and that foreign registered operators with no Caymanian participation should be allowed to provide services.
  - Viasat requested that licensing should include a rigorous space segment registration process.<sup>6</sup>
  - Flow stated that a technology neutral approach using the current licensing regime
  - Digicel proposed that revenue rules should be the same for terrestrial and satellite.
  - SatelloT suggested that a light-touch licensing regime is critical to promoting the growth of satellite-based services.

- 40. Section 23(5) of the ICT Act 17(1) of the Trade and Business Licensing Act (the '**TBL Act**') provides that: A person shall not carry on a trade or business in or from within the Islands unless that person holds a valid licence issued under the TBL Act for each type of trade or business that the licensee is carrying on and in respect of each location from which such trade or business is being carried on, except where the provisions of this Act do not apply to the person.
- 41. Section 23(5) states that: No ICT network or ICT services licensed under this [Act] is required to be licensed under the TBL Act.
- 42. Further, section 23(2) provides that the Office will establish the types of services and networks that require licensing. This makes clear that the Office is responsible for licensing all ICT networks and services.

<sup>&</sup>lt;sup>6</sup> The process of registering satellite systems with relevant national and international authorities to ensure proper coordination, spectrum allocation, and compliance with regulatory frameworks.

- 43. Paragraph 26(2)(g) of the ICT Act states that the Office may *take into account* the level of participation by Caymanians including beneficial ownership. The Act does not stipulate that ICT licensees must have Caymanian participation, only that the Office may take this into account when reviewing licence applications. Notably, several other existing licensees do not have Caymanian ownership.
- 44. The idea that fees should be different for SSPs compared to existing ISPs based on the different methods of provision of the service does not comply with the notions of technology neutrality. Such an approach might consider that the provision of an internet service through a mobile network as opposed to over fibre ought to be treated differently. Whilst a mobile service requires radio spectrum and will be charged for the use of that resource, there is no logical reason why the different service providers should be subjected to different fees. The same is true for the delivery of Internet services via satellite compared to terrestrially, and to ensure a fair playing field between service provider, the Office is of the opinion that the fee structure for SSP licences, should be the same for SSPs as for existing ICT licensees.

# Conclusions

- 45. Any applicant for an SSP license must obtain the necessary authorisation from the Office in accordance with Section 23 of the ICT Act, which governs the licensing of all ICT networks and services. While registration in the Cayman Islands and compliance with local trade and business regulations may be considered, the Office retains discretion to evaluate applications from entities with limited Caymanian participation if there are valid and justifiable reasons for doing so.
- E.4 Question 4: What approach should OfReg take to the licensing of VSATs?
- 46. Very Small Aperture Terminals (VSAT) is the name given to small satellite dishes which provide two-way connectivity between the Earth and space. In the ensuing text, the term VSAT is also used with regards to portable or mobile handsets which can also connect to satellites.
- 47. Under the current licensing framework, the only way in which satellite connectivity can be licensed (other than for in emergencies) is using a VSAT licence. These licences are only available to Major Public ICT Network licensees. In addition, the fees associated with applications for a VSAT licence would be prohibitive (the price for each licence equating to



the typical annual revenue generated from an internet connection) if each and every installation needed to be licensed based on the current framework.

#### Responses

- 48. The Office presented a number of possible methods for the licensing of VSAT for SSPs and asked respondents their opinions. The following comments were received:
  - A large number of respondents (GSOA, Starlink, Rivada, Viasat, Eutelsat, SatelloT and Logic) suggested that there should be a class or blanket licence for small VSAT. This would mean that the use of small VSAT would be permitted without the need for them to be associated with any service provider;
  - Some respondents (Flow, Kuiper, Digicel) suggested that a class licence should be issued, but only to SSP licensees;
  - Dart-IT suggested that VSAT could be licensed across different categories such as private/commercial, domestic or international.
- 49. A number of respondents pointed to a recently published Recommendation (CITEL PCC.II/Rec.68<sup>7</sup>) which considers the licensing of VSATs. It recommends that:

Administrations consider implementing a generic or blanketing licensing framework to facilitate the deployment of fixed satellite-service earth stations, including those in motion.

#### The Office's Consideration

50. The Office has already licensed the use of small VSAT on most aircraft and seagoing vessels (known as Earth Stations on Motion or ESIM terminals) on a class (or blanket) licence basis. Whilst extending this to all VSATs may therefore have precedence, the Office considers that given the potential for land-based satellite terminals to cause radio interference to other licensed users, some degree of control is necessary. VSATs comprise high power radio transmitters (to connect from the ground to satellites) and these could cause problems of interference to other radio services, especially if not correctly installed.

<sup>&</sup>lt;sup>7</sup> https://www.oas.org/citelevents/en/Documents/DocumentsFile/2804

#### Conclusions

- 51. The Office is proposing to provide SSP licensees with a class licence for the use of VSATs to connect to their networks but not provide a blanket licence for all VSATs. This enables SSP licensees to offer services without the need to licence each terminal whilst providing protection to other licensees from the unlicensed use of terminals.
- E.5 Question 5: Do you have any comments on OfReg's assessment of the potential interference between satellite terminals and other services?
- 52. Radio interference is caused when two (or more) transmitters occupy the same radio frequency at the same time, in the same location. Several of the frequency bands which are used for SSP services are also used for services in the Cayman Islands, primarily fixed point-to-point links which provide connectivity to cell towers and to some businesses. It is therefore important that the use of VSAT for SSP does not impact the service of existing licensees.
- 53. The Office notes that the frequencies used by SSP are already permitted to be used by some aircraft and seagoing vessels whilst in the jurisdiction and no problems have been recorded. Internationally there have been many studies on the potential for interference between VSAT and terrestrial services and rules have been put in place at the ITU level to ensure that any VSAT use does not cause harmful interference. As long as satellite operators and users follow these rules, the risk of interference is deemed acceptable.

#### Responses

- 54. Most respondents agreed that the risk of interference is small as long as the satellite operators and users follow the necessary rules. Other comments made on this issue in response to the consultation included:
  - Digicel noted that some of the frequency bands which may be used for SSP are not currently used in the Cayman Islands and wished the Office to assess how usage might change;
  - A number of respondents (GSOA, Rivada, Kuiper, Eutelsat and SatelloT) highlighted the fact that the risk of interference is managed through ITU rules (Article 21) and by following technical standards;

- Starlink stated that there is no risk of interference and their operation in many jurisdictions without a problem is evidence of this;
- Viasat suggested that any use of spectrum by one satellite operator should prevent harmful interference to other satellite operators;
- Viasat also said that the Office should prevent monopolisation of spectrum and orbital resources.
- Flow raised the issue of charging for the use of radio spectrum for satellite-based services.

- 55. The Office is reassured that the potential for interference is minimal due to the work already undertaken internationally to study the issues and set in place necessary rules. Based on existing international standards and available data, the Office does not anticipate significant interference. However, to mitigate potential risks, the Office will ensure compliance with international regulations and will monitor developments to determine if additional measures are necessary. As with other spectrum bands, the Office will actively monitor the use of satellite frequencies. If any interference is reported, the Office will investigate and, if necessary, evaluate and implement appropriate measures to mitigate the issue.
- 56. The Office has already made the use of satellite terminals in certain frequency bands on aircraft and certain seagoing vessels, and in emergency situations, exempt from spectrum fees through a class licence. The use of satellite services in these frequency bands for these purposes does not require a specific spectrum licence because usage on aircraft and vessels is intended to be temporary and not on a full-time basis and as such, any potential interference to other users would (and thus spectrum management activity by the Office) be minimal.
- 57. Fees for the use of the radio spectrum are intended to recover the costs of managing the spectrum and as such, it is reasonable to require SSPs to pay for the spectrum they are using as the Office will be required to undertake activities to manage satellite spectrum both locally and on behalf of the Cayman Islands internationally. The framework for spectrum pricing requires that fees are due on a 'per channel' basis, leaving the Office to define a channel.
- 58. Different satellite systems use different amounts of spectrum for the 'channels' they utilise, ranging in size from around 0.2 MHz to around 500 MHz with smaller channels being typically used on lower frequency bands,

and larger ones on higher frequency bands. As a result, the Office proposes to define a channel for each frequency range based on those which apply to other services with which the spectrum is shared (i.e. to ensure that satellite and non-satellite uses pay the same amount) as follows:

59.

- Below 500 MHz, the reference user would be a land mobile radio for which the defined channel bandwidth is 12.5 kHz
- Between 500 MHz and 5 GHz, the reference user would be mobile cellular, for which the defined channel bandwidth is 5 MHz;
- Above 5 GHz, the reference user would be a fixed-link for which the defined channel bandwidth is 28 MHz (below 32 GHz) and 100 MHz (above 32 GHz).

# Conclusions

60. The licensing of VSATs is discussed below. With regards to the use of the radio spectrum, fees for spectrum use are defined on a 'per channel' basis, where a channel has been defined based on the that used by reference services with which the spectrum is shared, as follows:

Frequency Range	Channel Size	Reference Service
Below 470 MHz	12.5 kHz	Land Mobile
470 MHz – 7.125 GHz	5 MHz	Mobile (4/5G)
(e.g. L-, S-, C-band)		
7.125 – 37 GHz (e.g. K, Ka- bands)	28 MHz	Fixed Links
Above 37 GHz (e.g. Q/V/W bands)	100 MHz	Fixed Links

- 61. Spectrum assignments will be on a non-exclusive basis.
- E.6 Question 6: How should OfReg handle the Government's requirement to keep local traffic onshore?
- 62. On 29<sup>th</sup> May 2020, the Cabinet issued the 'Utility Regulation and Competition (Information and Communications Technology) Directions, 2020', (the '**2020** Directions'<sup>8</sup>) where the Cabined directed the office to "take measures to ensure local internet communication remains onshore".

<sup>&</sup>lt;sup>8</sup> <u>https://www.ofreg.ky/viewPDF/documents/legislation-regulations/2024-11-20-07-16-50-URC-ICT-Directions-on-Local-Internet-Traffic-Onshore-2020.pdf</u>

63. To achieve this, the Directive specifically required the Office to:

[oversee] the establishment of ICT peering point (infrastructure) for the exchange and handing off of local traffic between ICT service providers' networks; [...] (iii) [safeguard] the ICT sector, by taking the necessary steps of inserting this issue as a condition for licensees to operate an ICT service in the Islands, if necessary [...]

Responses

- 64. Views expressed included:
  - GSOA and Logic suggested that OfReg should address this issue with Government;
  - Starlink, Rivada, Kuiper, Eutelsat, SatelloT, Dart-IT proposed to exempt satellite operators from the requirement as it is not practical;
  - Flow, Digicel and Logic stated that the principles of technology neutrality should apply and either all licensees (including satellite) should make the necessary provisions or they should be non-discriminatorily removed from all licensees.
- 65. Notably, Starlink has informed Office that the only option for it to be able to operate in the Cayman Islands, would be to remove the requirement to peer to keep local traffic onshore, as this consideration has been the largest impediment to bringing service to the Cayman Islands.

- 66. As was discussed in the Consultation document, the Directives requirement cannot be met for satellite-based services unless certain network elements are installed on the ground in jurisdiction and all satellites (regardless of where they are situated regionally) used to transfer local data and ultimately deliver services are registered to the Cayman Islands, because due to the nature of satellite constellations, the traffic must pass through satellites which are outside of the jurisdiction.
- 67. Whilst placing a satellite ground station in the Cayman Islands could return traffic directly to the Islands after passing through a satellite, such a solution would still require traffic to pass through a third-party jurisdiction before returning to the Islands and as such, would still not precisely meet the requirements of the directive. Even having a local ground station may not meet the criteria as depending on the satellite system concerned, there may be no way to intelligently route telecommunications traffic once it is in

space to return to the ground station directly from the satellite to which the uplink took place. In some cases, traffic may be downlinked from the satellite to a ground-station elsewhere before recognising that it was generated in, and intended for, the Cayman Islands requiring it to be rerouted by the satellite network to the ground station in the Cayman Islands. Thus, though the traffic generated here may be returned to the Islands, it would not 'remain onshore'. Further, ground stations are costly and may not be economically viable (a view supported by several respondents).

- 68. The Office finds that whilst, on the one hand, it is relatively straightforward for terrestrial providers to meet this requirement, it is not so for SSPs. Therefore, differentiating between the two is not against the principles of technology neutrality but instead recognises the different and unique characteristics of the services.
- 69. The Office is mindful of the Cabinet's desire to keep local internet communication onshore but equally recognises the legal, regulatory, technical and economic difficulties of achieving this for SSPs. This is not to say that SSPs might not voluntarily wish to install a ground-station in the Cayman Islands (though as described above, this does not fully comply with the requirement to keep local internet traffic onshore).

#### Conclusions

- 70. Given that SSPs were not active participants in the market when the directive was issued, it is unlikely that the policy intent contemplated their inclusion. If the directive were meant to extend to non-terrestrial providers, it would have required a different level of consideration—technical, legal, and practical at minimum to distinguish how such obligations would apply across different service categories. Therefore 2020 Cabinet Directive was clearly intended for existing terrestrial licensees and was developed in a regulatory landscape that did not account for the emergence of SSPs. Applying it retroactively to an industry that did not exist at the time of issuance raises significant policy, legal, and technical inconsistencies.
- 71. The rollout of satellite service provision presents a significant advantage in ensuring telecommunications resiliency, particularly leading up to, during and after catastrophic events such as hurricanes.
- 72. Unlike traditional land-based networks and submarine cables, nonterrestrial services provide a redundant, independent layer of connectivity, providing continued communication and international linkages when ground-based systems fail.

- 73. The events of November 2024, when hurricane Rafael threatened the Cayman Islands, serve as a clear example. During this period, a local service providers experienced outages, making it difficult—if not impossible—for some users to communicate using terrestrial networks. Similarly, in July 2024, when Hurricane Beryl threatened the Cayman Islands, an outage on terrestrial networks resulted is service interruptions for users across several networks. Such disruptions are not uncommon, as terrestrial telecommunications infrastructure (cell towers, onshore fibre networks, and power-dependent transmission sites) are vulnerable to hurricane-force winds, flooding, and widespread power outages.
- 74. Additionally, the submarine cables that connect the Cayman Islands to the global internet are also susceptible to damage from storms, underwater landslides, or accidental anchor strikes. The failure of these critical components can lead to significant service disruptions, further isolating the country during emergencies. In contrast, satellite services operate entirely independently of ground-based infrastructure, offering a resilient, continuous means of international connectivity that is not susceptible to destruction on the ground.
- 75. This redundancy is not just theoretical it has been recognised as a critical disaster mitigation measure. The Cayman Islands Hazard Management Department has in discussions with the Office highlighted the importance of satellite communications in ensuring continuity of telecommunications services during major disasters. This recognition underscores the need for a diversified, multi-layered connectivity strategy, where non-terrestrial networks complement terrestrial systems to ensure robust, disaster-resistant telecommunications for the Cayman Islands.
- 76. Notwithstanding the general benefits of a new service being offered to consumers, the integration and support of non-terrestrial infrastructure in national telecommunications planning is not merely beneficial it is necessary to safeguard public safety, economic continuity, and emergency response capabilities in the face of natural disasters and other unforeseen disruptions.
- 77. Consequently, the Office considers that SSP services were not intended to be subjected to the mandate to ensure that local internet communication remains onshore. But that it is important that users of any SSP service provided locally should be made aware of the fact this reality.
- 78. Should any potential SSP licensees apply to have a ground-station in the Cayman Islands, the requirement for local traffic to be routed in such a way as it returns via the local ground station with minimal routing elsewhere

may be duly added to their licence conditions and thus retain the spirit and intention of the directive.

- E.7 Question 7: What are your views on the extent to which the introduction of satellite-based services will impact the businesses of existing suppliers and affect consumers?
- 79. The Office requested respondents to comment on how the introduction of SSP might impact competition for ICT service provision in the Cayman Islands.

#### Responses

- 80. Comments received included the following:
  - GSOA, Starlink, Rivada and Dart-IT stated that satellite networks are a complement to local services not a threat;
  - Flow suggested that the Office should regulate satellite services within the existing licence framework;
  - Both Flow and Logic were concerned that satellite companies can afford to offer 'loss leading' services to undercut existing suppliers;
  - Digicel requested that the Office ensured that prices are cost-based;
  - SatelloT suggested that satellite service are more likely to target niche markets (such as remote areas and IoT deployments) and would thus not compete with existing providers.

- 81. The Office has a role to protect consumers, and it would go against this role if the introduction of a new competitor in a market were to adversely impact consumers. The claim that lower prices offered by a new entrant is a threat to existing service providers, is on its own not sufficient to deny entry. Equally, the Office has a role to promote innovation and competition. The provision of telecommunications services in the Cayman Islands is characterised by:
  - Four existing providers of fixed telecommunication services (C3, Digicel, Flow, Logic);
  - Two existing provider of mobile telecommunication services (Digicel, Flow); and



- Two potential mobile competitors (Logic and Paradise Mobile) who hold licenses for mobile telecommunications.
- 82. As such, the addition of further competition from SSPs is expected to produce a relatively small effect on the prices and diversity of services already provided to the existing customers of terrestrial ICT networks. This is because satellite services have been generally viewed as complementary to the terrestrial services, and as pointed out by the responses of a number of satellite operators, in many cases the services they provide are most often adopted for niche applications, or in areas where there is poor existing service coverage.
- 83. However, satellite services may be offered in future at prices and quality of services that are attractive enough for a wider adoption by the existing and new ICT customers. While the speed and probability of such widespread adoption of satellite services is currently unknown, the Office considers that it is unlikely that the introduction and expansion of satellite services will adversely impact existing customers.
- 84. Noting Digicel's suggestion for the Office to conduct cost of service analysis on prospective SSPs, if the Office were to conduct a cost study of SSP services, it would need to do so across all service providers including Digicel. In any event the existing legislation provides mechanisms for the Office to conduct the necessary reviews to identify abuses and where found, may implement remedies to address abuses.

# F. Invitation to Respond to this Consultation

**85.** Based on the above, the Office invites all interested parties to submit their comments, on the proposals made in this consultation on its Draft Determination.

# G. How to Respond to This Consultation

86. This consultation is conducted in accordance with the Consultation Procedure Guidelines determined by the Office and found on the Office's website here:

http://www.ofreg.ky/upimages/commonfiles/1507893545OF20171Determi nationandConsultationProcedureGuidelines.pdf



- 87. All submissions on this consultation should be made in writing and must be received by the Office by **5 p.m. on 2 May 2025** at the latest to be considered.
- 88. The Office will post any comments received, by **9 May 2025.**
- 89. Submissions may be filed as follows:

By e-mail to: consultations@ofreg.ky

Or by post to: Utility Regulation and Competition Office P.O. Box 10189 Grand Cayman KY1- 1002 CAYMAN ISLANDS

Or by courier to: Utility Regulation and Competition Office 3<sup>rd</sup> Floor, Monaco Towers II 11 Dr Roy's Drive George Town Grand Cayman CAYMAN ISLANDS