



## **Public Notice 2025 – 2**

### Consultation Framework for the Licensing of Satellite-Based Internet Service Providers

Launch Date: March 27 2025

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## A. Introduction

1. The Telecommunications Commission ('the **Commission**') is an independent regulatory agency that is responsible for the regulation of telecommunication services and the use of radio spectrum in the Turks and Caicos Islands.
2. Consultation is a very important element of our regulatory responsibility, as it provides transparency and the formal mechanism for people to express their views. The requirement for the Commission to consult is enshrined in the Telecommunications Administrative Procedure Regulation of the Telecommunications Ordinance. Therefore, before embarking on any significant matter affecting the industry, the Commission first engages the public through public consultations to garner the input and views of persons in the community before issuing its decision.
3. The purpose of this consultation is to seek the views of affected stakeholders, the general public, and other interested parties, regarding the establishment of a framework for the licensing of satellite-based internet service providers.

## B. Background

4. The Turks and Caicos Islands are made up of over 40 islands and cays, 7 of which are inhabited. Providenciales, the economic epicenter of the country, is the most densely populated island and is directly connected to an international submarine fiberoptic cable system known as ARCOS-1, which serves as the country's sole communications gateway.
5. Grand Turk is the nation's capital, where the seat of the government lies. Connectivity to Grand Turk and the islands in between - the family islands (North, Middle, and South Caicos) are established over wireless radio links, known as microwave links. Microwave links provide the backbone and the carriageway that allow telecommunication services to be dispersed across the islands.
6. Over the years, these microwave links have become over-saturated due to the increasing demand placed on these systems by the consumer, resulting in degraded telecommunication services, particularly internet connectivity, in those communities. Unfortunately, these microwave systems struggle to provide the required bandwidth to support modern-day communication due to their technical limitations thereby restricting the amount of bandwidth capacity they can offer to sustain highspeed, reliable access.
7. As a result of the persistent poor quality of internet services experienced in the family islands and Grand Turk, some residents have turned to satellite-

- based operators such as Starlink for internet access as an alternative. This is a growing trend that is being observed and it is particularly concerning as it has some obvious market implications to consider. In recognizing the issue with the rising uptake of this service, the Commission reached out to Starlink to inform them about the activities on the ground and to further inquire about the status of regularizing its services in the Turks and Caicos Islands. Shortly thereafter, Starlink issued notices to its TCI-based users advising them that their services would be disrupted by a certain date.
8. On October 8, 2024, Starlink applied for an Internet Service Provider Licence (INS-2), with a maximum subscriber of 500 users. However, due to some concerns raised about the scalability of the licence and its long-term suitability for the service they intend to offer, their application was withdrawn. This decision was made with the understanding that the Commission would conduct further consultation into the matter.
  9. The Commission, recognizing that there were no specific licensing categories to address satellite-based internet service providers, and further considering the nuances of satellite communications on a whole, decided to embark on this public consultation exercise to establish a licensing framework for satellite-based internet services in the TCI.

## C. Legal Framework

10. Section 4 of the Telecommunications Ordinance sets out the functions of the Commission, as follow:
  - (a) to carry out the functions conferred on it by this Ordinance;
  - (b) to advise the Minister on telecommunications;
  - (c) to regulate telecommunications in the Islands in accordance with the policy guidelines published in the Gazette from time to time and in accordance with the principle of technological neutrality;
  - (d) to facilitate, maintain and promote effective and sustainable competition in telecommunications;
  - (e) to set standards for the quality of telecommunications services to be delivered to the public;
  - (f) to promote the interests of consumers and to encourage licensees to operate efficiently;
  - (g) to publish information, reports or other documents;
  - (h) to carry out investigations and hold enquiries with respect to any matter

in relation to its functions or duties under this Ordinance;

- (i) to give advice and directions to a licensee with respect to anticompetitive practice or behaviour;
- (j) to prescribe standards for the protection of consumers and the public;
- (k) to instruct the Director General to conduct research into the quality and standard of service of a licensee, and into tariffs or any anti-competitive behaviour;
- (l) administer such of its own databases or other information or administrative or operational systems as it considers necessary in relation to the discharge of its functions; and
- (m) to carry out such other functions as may be necessary for the purpose of discharging its functions under this Ordinance.

## D. Scope of this Consultation

11. The objective of this consultation exercise is to establish a framework for the licensing of new and innovative satellite-based internet services. The scope of this consultation will consider the interplay between satellite service operators and terrestrial-based operators while observing the principles of fair competition. In considering satellite services, the following topics will be addressed:

- **Licence types**
- **Satellite Internet Service Licence Fees**
- **The Commission's Responsibilities and Powers**
- **Islander Control Requirements**
- **VSAT Licensing**
- **Radio Interference**
- **Impact on Market**

12. Each of these topics enumerated will be discussed in more detail in this document. Following each segment, questions will be posed to solicit your views on the various topics to assist the Commission in determining how to proceed.

## E. Discussion

### E.1 Licence types

13. The Telecommunications Fee Structure Regulations<sup>1</sup> contains an array of telecommunication licenses and their associated fees, as well as a number of spectrum licence categories for related services that require the use of radio frequencies to deliver these services wirelessly. However, there is currently no specific licence type in the Telecommunications Fee Structure Regulations which is directly applicable to the provision of internet services by satellite. In theory an **Internet Network or Services** licence which is defined as: “A network or service that provides users the ability to access the internet,” could be considered to include satellite-based internet connectivity, as this definition does not include any restrictions on how the service must be delivered. Therefore, the Commission believes that this type of licence could be a potential placement for satellite-based internet services as it fits the Internet Network or Services description for the service that is being provisioned.
14. There are three (3) categories of Internet Network or Services licences. INS-1, which can service 500 or more subscribers; INS-2, which has a subscriber limit between 50 and 500 users; and INS-3, which can maintain less than 50 subscribers. Conventionally, Internet Network or Services licenses comprised of connectivity from terrestrial base stations rather than satellite to consumer premises, either by wired connection or wirelessly using WLAN or cellular technology.
15. Whilst in principle, an Internet Network or Service licence could be applied to satellite-based internet services, with the INS-1 and INS-2 licence categories being better suited because of its subscriber thresholds, the Commission believes that it would be beneficial to be able to differentiate between terrestrial and satellite-based provision in these types of licence awarded to service providers, so that any specific licence provisions that may apply could more easily be tailored to the services involved to form a distinction between terrestrial and satellite-based licensees.

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<sup>1</sup> <https://telecommission.tc/wp-content/uploads/2022/06/Telecommunications-Fee-Structure-Regulations-2022.pdf>

16. There are two approaches the Commission could take to facilitate the licensing of commercial satellite internet services:

- Satellite internet services could be licensed using existing licence types; or
- A new licence category could be introduced to better reflect the different satellite internet services.

**Question 1: Should the Commission introduce a new licence type to facilitate the specific licensing of satellite-based internet services?**

**E.2 Satellite Internet Service Licence Fees**

17. Should the Commission introduce a new licensing category for satellite-based internet service providers, it will have to set fees for the service. To determine the appropriate fees, it is important to examine the existing fees set for internet services in the Telecommunications Fee Structure Regulations.

18. The Telecommunications Fee Structure Regulations have defined three categories for the provision of internet services: INS-1, INS-2, and INS-3 (see Figure 1 below). These fees are attributable to the network or service component of the licence. In the case of satellite-based internet services, which require spectrum, the fees for this element of the service will be covered later under VSAT licensing.

Figure 1

*Extract from Telecommunications Fee Structure*

Licence Code	Description	Application Fee	Initial Fee (On Grant of Licence)	Renewal of Licence Fee (Annually)	Regulatory Fee (Annually)
INS-1	Internet Networks or Service(>500 subscribers)	\$2,500.00	\$75,000.00 or 7% of gross revenue of the current year, whichever is greater	\$75,000.00 or 7% of gross revenue of the current year, whichever is greater	\$25,000 or 1.8 % of gross revenue of the current year, whichever is greater
INS-2	Internet Network/Services (>50 ≤500 subscribers)	\$1,000.00	\$5,000.00 or 7 % of gross revenue of the current year, whichever is greater	\$5,000.00 or 7 % of gross revenue of the current year, whichever is greater	\$5,000.00 or 1.8 % of gross revenue of the current year, whichever is greater
INS-3	Internet Network/Services (0 ≤50 subscribers)	\$1,000.00	\$1,000.00 or 7 % of gross revenue of the current year, whichever is greater	\$1,000.00 or 7 % of gross revenue of the current year, whichever is greater	\$1,000.00 or 1.8 % of gross revenue of the current year, whichever is greater

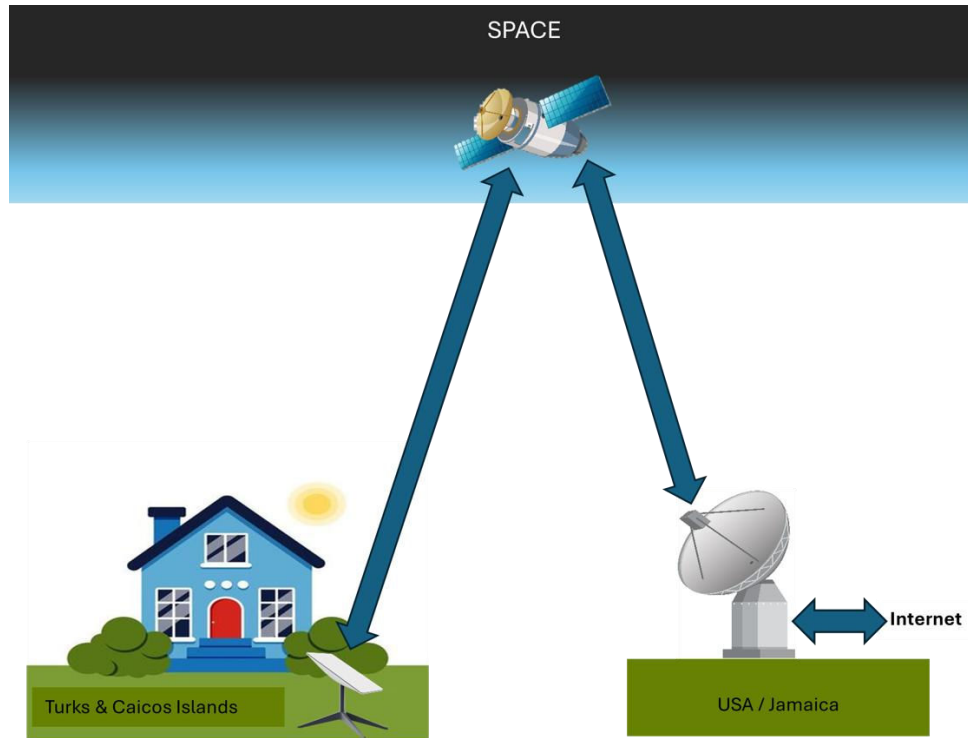
19. Figure 1 above shows that four types of fees are assessed for the various Internet Network or Service licence categories: the application fee, the initial fee, the licence renewal fee, and the regulatory fee.
20. The application fee is a one-time fee paid on submission of the application. The initial fee is the sum assessed on grant of the licence and its first year of operation. It is calculated by assessing either a fixed percentage on gross revenue or a flat fee, whichever is greater. The renewal of licence fee is the fee assessed for each year the licence is in force. It is also calculated by affixing a percentage on gross revenue or a flat fee, whichever is greater. The regulatory fee is the fee associated with regulating the service. Similar to the renewal of licence fee, it is also calculated based on a percentage of gross revenue or a flat fee, whichever is greater.
21. Given the current fee structure for Internet Network or Services licences it is important that any fees derived for satellite-based internet services reflect a similar pattern in terms of the various fee categories that are prescribed to the service. Additionally, how these fees are computed should remain similar to maintain consistency in the fee application across all licence types. This would ensure that the principles of fair competition would be observed. However, the flat fee and the application fees can be adjusted in proportion to the size of the licence (meaning the number of potential subscribers it can serve) or perhaps another factor, such as the potential target market of the service.
22. One factor to consider when determining an appropriate flat fee is examining the uptake of satellite internet services in other markets and applying those findings to the market in TCI. According to data from the U.S. Census Bureau, only 6.7% of households (8.6 million) utilize satellite internet services. The potential markets in TCI where satellite services would be most in demand are the family islands: North Caicos, Middle Caicos, South Caicos, and Grand Turk. This is because these islands lack a subsea fiber connection and do not have a robust high-speed communications link to provide fast and reliable internet services. Therefore, the Commission can take two approaches:
  - Use existing Internet Network or Service licence categories and their corresponding rates and apply them to the satellite internet services; or
  - Create a new category for satellite internet services while maintaining the 7% and 1.8% rates used to calculate the license and regulatory fees. However, reduce the associated flat fees and application fee to align with the new service, reflecting the Commission's practice of benchmarking fees against similar licenses in other countries.



## **Question 2: What approach should the Commission take to establish the licence fees for satellite-based internet services?**

### E.3 The Commission's Responsibilities and Powers

23. Unlike terrestrial telecommunication networks, whose infrastructure can be wholly regulated in the jurisdiction where the service is provided, satellites are regulated by the countries under whose flag they were launched. Each country must ensure its satellite operators follow the rules and conditions in the Radio Regulations published by the International Telecommunications Union (ITU). A country is free to enact domestic rules as long as they align with its international commitments and agreements.
24. As such, existing satellite networks are regulated outside the Commission's jurisdiction. The only part of the satellite service that would be directly regulated by the Commission is those situated in the Turks and Caicos Islands. This constitutes only the satellite terminals used by end-users to connect to the satellite service. The licensing of these terminals is discussed separately below.
25. The diagram below illustrates the situation (for a United States-owned satellite).
  - Internet traffic from the Turks and Caicos Islands connects with the satellite which is regulated by the United States.
  - The satellite must then relay the traffic to a ground station (the nearest of which are in Jamaica or in the United States).
  - Even if the satellite is located immediately above the territory of the Turks and Caicos Islands, it is still not within our jurisdiction as it is classed as being in space, which is generally defined as anything over 100 km (62 miles) above ground level (satellite orbits begin around 250 km above ground).



26. The Commission would not therefore have the same level of regulatory control over a satellite service that it would have over a service provider whose operations and infrastructure were located wholly within the Turks and Caicos Islands.
27. This raises a number of areas where the Commission would have limited control in the provision of the service. For example, one of the Commission's core functions is:

*to carryout investigations and hold enquiries with respect to any matter in relation to its functions or duties under its Ordinance;*

28. As most of the satellite service is provided outside of the Turks and Caicos Islands jurisdiction, the Commission would have limited recourse to raise and deal with complaints about the quality of service to the consumer. In addition, there are several other areas where the Commission would have limited jurisdiction:

- **Outage notification:** The Commission would not necessarily be able to insist that the satellite service provider notify the Commission (and subscribers) if there were any planned or unplanned outages of the service.

29. Users of the satellite-based internet services may therefore have to accept that their primary recourse for complaints or fault resolution would be through the provider themselves. They would not be able to approach the Commission for assistance, to raise complaints, or for other regulatory assurances.
30. There are several ways in which the Commission could approach these issues, for example:
- Include the necessary provisions in the licences of any satellite services, with a requirement to make best efforts to ensure that they are met.
  - Recognize that there are certain issues which will fall outside the jurisdiction of the Commission and exclude the requirement from the obligations from the licence of any satellite-based provider.

**Question 3: In what way should the Commission approach the issues associated with the fact that the provision of some parts of a satellite service occur outside its jurisdiction?**

#### E.4 Telecommunications Islander Control Requirements

31. The Telecommunications Ordinance under section (9) requires that a person seeking a telecommunications licence meets the islander control provisions of the ordinance, which states the following:
- A person shall not obtain a licence under this Part unless the person satisfies the Commission that the person is owned or controlled by Islanders.
  - A person is owned or controlled by Islanders if in the case of a company –
    - Not less than fifty-one percent of the members of its board of directors are individual Islanders;
    - Otherwise than by way of security only, not less than fifty-one percent of the company's voting shares issued and outstanding are owned by Islanders; and
    - The company is not otherwise controlled by persons that are not Islanders.
32. The Minister of Communications may exempt any person from these requirements.

33. There are, however, a number of ways in which this could be approached:

- Satellite operators could establish their own company based in the Turks and Caicos Islands and apply for a telecommunications licence in their own right;
- Satellite operators could partner with an existing telecommunications licensee, who would then provide the service under their licence;
- the Commission could allow licence applications from operators with no local presence nor Turks and Caicos Islander participation.

**Question 4: How should the Commission proceed with the requirements for Islander Control for satellite internet services?**

## E.5 VSAT Licensing

34. Satellite internet services require two-way communications from the satellite in space to the devices on the ground. There are two types of devices that allow two-way communications with satellites:

- **Ground Stations:** These are large facilities which collect traffic from a complete satellite and provide outgoing connectivity from the satellite to the rest of the world. These typically comprise large dishes (which can be 30 feet or larger in diameter) and are strategically placed to connect with an operator's satellites.
- **User Terminals:** These are much smaller pieces of equipment situated at a consumer's premises which provide a connection to individual customers.

35. User terminals for broadband internet-type services are usually known as Very Small Aperture Terminals (VSAT). European Telecommunications Standards Institute (ETSI) standards EN 301 459 or EN 301 428 state that apertures for VSATs should not exceed 3.8 m for the 14/11-12 GHz band and 1.8 m for the 30/20 GHz band. Historically larger sized dishes were needed to connect to satellites but with developments in technology, VSAT dish sizes can now be as small as 18 inches across and sizes are likely to reduce further as the technology develops.

36. Under the current licence fee arrangement, each VSAT terminal would be subject to an application fee of US\$1000 and an initial fee and renewal fee respectively, of \$500 annually per channel. These fees were established at a time when the use of VSATs was primarily for major corporation or emergency back-up connectivity rather than for retail connections, and the frequency channels assigned to these services were used on a dedicated basis.

37. Satellite internet services today operate on shared microwave spectrum which is dynamically allocated within the spectrum band and are used by all satellites operating globally. These frequency bands are assigned by the International Telecommunications Union.
38. Due to the potential number of end user terminals involved with the retail distribution of satellite internet services, it would not be the best approach to licence a single VSAT unit per user because it would be too complex to manage and administer.
39. The Commission could approach the licensing of satellite terminals by:
  - Maintaining the current arrangement in which each terminal would require an VSAT licence application with the associated fees;
  - Create a new VSAT Spectrum licence category for shared spectrum use and assess a fee for the rights to use the shared spectrum band. In addition, remove the requirement to licence a single VSAT user terminal.

**Question 5: What approach should the Commission take to the licensing of VSAT terminals?**

**E.6 Radio Interference from VSAT**

40. VSAT contains high powered radio transmitters which are used to make a connection from the ground to a satellite. These devices operate in microwave frequency ranges that are shared with other services, specifically point-to-point links used by telecommunication providers to connect their sites together.
41. The frequency ranges used by VSAT for retail satellite services are as identified in the table below:

Frequency Range	Direction	Use in the Turks and Caicos Islands
10.7 – 12.75 GHz	Downlink	Fixed point-to-point links
12.75 – 13.25 GHz	Uplink	Not currently used
14.0 – 14.5 GHz	Uplink	Not currently used
17.7 – 20.2 GHz	Downlink	Not currently used
27.5 – 30.0 GHz	Uplink	Not currently used

42. There is therefore potential for interference both to and from VSAT terminals and fixed point-to-point links. As the beams used for satellites and for point-to-point links are narrow and directional, mechanisms are usually put in place to ensure that satellites do not point their beams in directions which could interfere with fixed links (e.g. they do not point towards the horizon). These mechanisms are enshrined within the international rules relating to satellite usage published in the Radio Regulations of the ITU and should be followed by all satellite services.
43. As such, there should be no significant interference problem between satellite services and fixed point-to-point links, however the potential for such both underscores the need for satellite terminals to be operated in a regulated environment, and the need for the Commission to keep a close eye on usage to ensure that no interference is caused.

**Question 6: Do you have any comments on the Commission's assessment of the potential interference between satellite terminals and other services?**

#### E.7 Impact on market

44. Whilst satellite-based internet providers therefore offer competition to local services, we do not believe that at current price levels they would be taken up by a large enough number of subscribers to damage the ability of existing operators to continue to invest in their networks, or reduce their quality of service to a detrimental level which will materially impact the service they provide to consumers.

**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?**

## F. Consultation Questions

45. Based on the above, the Commission invites all interested parties to submit their comments, with supporting evidence, on the questions raised in this consultation. These are questions repeated below:

**Question 1: Should the Commission introduce a new licence type to facilitate the specific licensing of satellite-based internet services?**

**Question 2: What approach should the Commission take to establish the licence fees for satellite-based internet services?**

**Question 3: In what way should the Commission approach the issues associated with the fact that the provision of some parts of a satellite service occur outside its jurisdiction?**

**Question 4: How should the Commission proceed with the requirements for Islander Control for satellite internet services?**

**Question 5: What approach should the Commission take to the licensing of VSAT terminals?**

**Question 6: Do you have any comments on the Commission's assessment of the potential interference between satellite terminals and other services?**

**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?**

## G. How to Respond to This Consultation

1. The Commission commences this consultation process to obtain feedback on the associated concerns outlined in this Consultation Document in accordance with the Telecommunications (Administrative Procedure) Regulations 2008. As a result, the Commission requests that interested parties provide thoughts and opinions about the topics included in this Consultation Document. The Commission will make a decision at the end of this consultation process once all feedback is reviewed. Based on the feedback and information gathered during this consultation process, these criteria may be those that are part of a proposal or, on the other hand, may be changed or removed entirely or in part.

This Consultation Document is available on the Commission's website at <http://www.telecommission.tc/>.

Respondents who wish to provide comment on this Consultation Document are invited to do so in written form.

Responses should be submitted to the Commission in electronic form to facilitate further distribution and posting on the Commission's website.

The Consultation Process is structured in two phases. In the first phase, Respondents may submit Initial Responses to the Consultation Document. In the second phase, Respondents may submit Reply Responses on the Initial Responses of other Respondents as necessary.

2. The filing deadlines for Initial Responses and Reply Responses are as follows:
  - Initial responses must be received by the Commission no later than 3:30 p.m. local time on **Monday, April 25, 2025**.
  - Reply responses must be received by the Commission no later than 3:30 p.m. local time on **Monday, May 16, 2025**.
3. Responses to this Consultation Document may be submitted to one or more of the following addresses:

E-mail to: [consultations@tcitelecommission.tc](mailto:consultations@tcitelecommission.tc)

Delivery (paper and electronic copy) by hand or by courier to:

**Mr. Kenva Williams**  
**Director General**  
**Turks and Caicos Islands Telecommunications Commission**  
872 Leeward Highway, Business Solutions Building  
Providenciales,  
Turks and Caicos Islands

4. The Commission welcomes all responses on the Consultation Document. Also, copies of all responses submitted by respondents in relation to this Consultation Document will be published on the Commission's website. With a view to having as open a public consultation process as practical, the Commission encourages respondents to structure their responses not to include any confidential information. If necessary, respondents may submit responses that include claimed confidential information in the form of two responses:
  - **Redacted Response** – In this document any claimed confidential information would be excluded. All other comments and information, not claimed as confidential, would be included in this version. This public version document would be posted on the Commission's website.



- **Confidential Response** – This document would be identical to the Redacted Response except that this version would also include the claimed confidential information for the use of the Commission. This document would not be posted on the Commission’s website and all confidential information in the document would be held in strict confidence by the Commission and its Consultants.
5. Claims of confidentiality will be determined by the Commission on a case-by case basis, and in compliance with the requirements set out in section 19 of the Administrative Regulations.

**Table 1:** Summarizes the timeline for this consultation process, including the estimated timing of the related Commission decision.

<b>Timeline for Consultation Process</b>	
<b>Description</b>	<b>Date</b>
Commission issues consultation Document	March 27, 2025
Initial Responses from Respondents	April 25, 2025
Reply Responses from Respondents	May 16, 2025
Commission Decision	June 2025