



**The Bahamas Telecommunications Company Limited**

Response to:

**Regulatory Framework for Satellite-Based  
Electronic Communications Services in The  
Bahamas**

**Consultation Document**

**ECS 75/2024**

**Issued: 9 December 2024**

**Response Date: 17 January 2025**

Submitted to:

**Utilities Regulation & Competition Authority (URCA)**

Legal and Government Affairs,  
January 17, 2025

## General Comments

The Bahamas Telecommunications Company Limited (BTC) welcomes the opportunity to respond to the Utilities Regulation and Competition Authority's (URCA) Consultation Document on "Regulatory framework for satellite-based electronic communications services in The Bahamas". BTC views the rapid development of non-geostationary orbit (NGSO) satellite operators as a potential net benefit to the telecommunications sector within The Bahamas, that is within a proper regulatory framework which ensures a level playing field for all providers. While BTC appreciates the collaboration and competition introduced by NGSOs such as Starlink, there are concerns about the regulatory landscape and its impact on traditional terrestrial providers like BTC.

BTC's observation is that the regulatory policy response has been slow and inconsistent in providing a clear framework for both traditional terrestrial providers and satellite operators. Since the launch of commercial NGSO and fixed broadband satellite services (FSS) nearly three years ago in the United States and Canada, and over two years ago in The Bahamas, significant regulatory policies on NGSO FSS operators have only now just been introduced.

Further, BTC seeks clarification from URCA as it relates to the Electronic Communication Sector Policy (ECSP). The basis for the Satellite-Based Electronic Communications Services in The Bahamas consultation is the ECSP 2020 – 2023 as opposed to the current ECSP 2024 -2027 which was issued on 18 October 2024 and published by Authority in the Extraordinary Official Gazette of The Bahamas on 21 October 2024. BTC is concerned that this will result in URCA's objectives for shaping its policy on satellite service operators being misaligned with the current sector policy.

A survey of enabling legislation of telecoms and ICT regulators in similar jurisdictions namely the Cayman Islands<sup>1</sup> and the British Virgin Island<sup>2</sup> all reflect the requirement for policies that promote "fair competition" among all providers. The Communication Act 2009 provides, "regulatory and other measures shall be... fair and non-discriminatory..." It is BTC's view that based on the content of the consultation that there is considerable work to be done in terms of making the playing field level for all providers.

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<sup>1</sup> [https://legislation.gov.ky/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0049/UtilityRegulationandCompetitionAct\\_2024%20Revision.pdf](https://legislation.gov.ky/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0049/UtilityRegulationandCompetitionAct_2024%20Revision.pdf)

<sup>2</sup> <https://www.trc.vg/wp-content/uploads/2020/12/Telecommunications-Act-2006.pdf>

**Question 1:** Do you have any other comments on the demand and the importance of satellite communication services for The Bahamas? If so, please provide a detailed explanation of these observations, including supporting evidence where available.

**Response 1:** BTC's view is that any demand for satellite communication use cases in The Bahamas must be framed within strong regulatory policy that protects the interest of terrestrial providers and provides a level playing field for all sector participants.

**Question 2:** Do you agree with the regulatory and policy objectives to consider in this review and the resulting five key objectives guiding URCA's review?

**Response 2:** BTC, in principle, generally agrees with the objectives outlined by URCA. However, BTC posits that an overarching objective of the ECSP is that all ICT undertakings must be conducted with the utmost regard for cybersecurity. For this reason, BTC recommends the addition of an objective to emphasise the importance of cybersecurity in public electronic communications networks, particularly in the context of satellite service providers.

**Question 3:** Do you agree with URCA's preliminary assessment of the current licence regime meeting Objective 1. If not, please clearly specify any potential gaps or issues that should be addressed to achieve this objective. In doing so, please provide a detailed explanation of these observations, including supporting evidence where available.

**Response 3:** BTC's view is that URCA's assessment of the current license regime is that it meets Objective 1. BTC is aware that the question relates to fitness of URCA assessment of Objective 1 however the fundamental differences between the Individual Operating License (IOL) that traditional terrestrial providers are subject to as opposed to Class Operating Licence Requiring Registration (COLRR) that satellite operator are subject to creates an uneven playing field where terrestrial providers face further, and additional regulatory burden not faced by satellite operators. BTC's view in this regard is that satellite operators should be subject to same licence obligations as terrestrial providers for the same service. Obligations such as infrastructure sharing and fair dealing obligations are absent in the COLRR.

BTC's view is that while the existing licensing regime might not deter provision of satellite-based electronic communication services in the Family Islands or elsewhere, the proposed regime may pose certain unintended hurdles to traditional terrestrial providers. As an example, the differences in license obligations between satellite operators and terrestrial

operators as well as the new proposed fee structure (See BTC's Response to Question 10) for satellite operators has cost implication that can potentially impact terrestrial operators' commercial competitiveness.

**Question 4:** Do you agree with URCA's preliminary assessment of the current licence regime meeting Objective 2? If not, please clearly specify any potential gaps or issues that should be addressed to achieve this objective. In doing so, please provide a detailed explanation of these observations, including supporting evidence where available.

**Response 4:** BTC's view is that URCA's assessment of the current licensing regime concludes it aligns with Objective 2. However, as outlined in BTC's response to question three (3), there are concerns regarding the fairness of licensing obligations that are exclusively imposed on traditional terrestrial providers like BTC. BTC is encouraged by URCA's emphasis on the importance of ensuring sustainable competition in the cellular market and looks forward to active and ongoing safeguards to protect the cellular mobile market. BTC will continue to closely monitor developments in the Mobile Satellite Services (MSS) market.

**Question 5:** Do you agree with URCA's preliminary assessment of the current licence regime meeting Objective 3? If not, please clearly specify any potential gaps or issues that should be addressed to achieve this objective. In doing so, please provide a detailed explanation of these observations, including supporting evidence where available.

**Response 5:** Before addressing the question, BTC finds it necessary to clarify a point made by URCA. In the last paragraph on page 19 of the Consultation Document, URCA suggests that terrestrial communication networks may become unavailable during natural disasters such as hurricanes. While this may be true, it must also be noted that satellite-based communication can similarly become unavailable during hurricanes. Starlink, one of many satellite operators and generally regarded as the premier satellite operator with the greatest reach and availability, states on its website: "Significant weather can cause service degradation due to attenuation of the radio signals. Moderate to heavy rain, snow, and hail can cause momentary service dropouts<sup>3</sup>." It is important to restate this fact to highlight that both terrestrial and satellite-based operators are subject to atmospheric events.

The importance of Objective 3 cannot be overstated, as a resilient network is paramount in our region, which lies in an active hurricane zone. BTC's view is that strong policy frameworks providing certainty for all communication providers are essential for effective

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<sup>3</sup> <https://www.starlink.com/bs/support/article/529bf751-3cad-f460-d653-4af162f195da>

execution and positive outcomes during times of peril. Based on BTC's observations, terrestrial providers operating under the Individual Operating Licence (IOL) are subject to the Infrastructure Sharing Regulations and the Disaster Management Regulation (ECS 18/2020). These are clear and essential conditions for developing, implementing, and operating disaster-resilient networks. By contrast, the Class Operating Licence Requiring Registration (COLRR) applicable to satellite-based providers contains, at best, implied obligations without the same level of certainty.

For this reason, BTC disagrees with URCA's preliminary assessment that the current licensing regime meets Objective 3. BTC stands by this position notwithstanding URCA's statement that it "...proposes to maintain its existing licensing regime while allowing for ad-hoc adaptations..."

Disasters and emergencies are often unpredictable occurrences. BTC holds the view that ad-hoc adaptations alone are insufficient and introduce uncertainty and cannot be a substitute for robust policy planning. Drawing from experience, for example, BTC and other local terrestrial operators have concluded framework agreements that allow for the carriage of electronic communication services during disasters or emergencies. These agreements are mandated by the Disaster Management Regulation (ECS 18/2020), which forms part of the conditions of terrestrial providers' IOLs.

BTC's position is that Objective 3 cannot be met until there is alignment between the operating licences of terrestrial and satellite-based operators concerning the Infrastructure Sharing Regulations and the Disaster Management Regulation (ECS 18/2020).

**Question 6:** Do you agree with UCRA's proposed way forward on licencing regime to accommodate satellite-based services in The Bahamas? If not, please provide a detailed explanation of your suggestions, including supporting evidence where available.

**Response 6:** For the reasons outlined in response to question five (5), BTC does not agree with URCA's proposed approach to the licensing regime for accommodating satellite-based services in relation to Objective 3, notwithstanding URCA's proposal to include the provision:

"The licensee shall assist the Ministry of National Security, the Royal Bahamas Police Force, and any other authorised government ministry or agency by providing end-user terminals and/or temporarily prioritising communications from designated terminals over all other traffic.

This prioritisation of designated communications shall remain in effect solely during the period of the relevant emergency or operational need and will cease immediately once the designated government agency issues an official all-clear notification to the public."

BTC's view is that this provision alone is insufficient to address the complexity involved in developing, implementing, and operating disaster-resilient networks. BTC suggests that URCA subjects all operators to the framework set out in the Disaster Management Regulation (ECS 18/2020) and include the obligation in the relevant licences.

**Question 7:** Do you agree with URCA's preliminary views on the expected spectrum demand in low frequency and high-frequency bands from satellite-based communication services in The Bahamas? Do you have any other comments on the precise bands that should be opened in priority to satellite-based communication services in The Bahamas? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 7:** BTC is unable to either agree or disagree with URCA's views on the anticipated spectrum demand in low-frequency and high-frequency bands for satellite-based communication services in The Bahamas at this time, as NGSO satellite systems are still in the early stages of development. BTC will continue to monitor developments in this area and looks forward to contributing to future consultations on the matter.

**Question 8:** Do you agree with URCA's preliminary views on interference risks for satellite-based communication services in The Bahamas? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 8:** BTC's view is that URCA's assessment of the potential for NGSO satellite systems to interfere with terrestrial operators' services, specifically fixed wireless links and nascent 5G mobile services, is overly conservative. URCA characterises the interference impact of NGSOs as limited. Nonetheless, BTC is concerned, as it operates the largest microwave network in the country, primarily within the standard spectrum class. BTC's microwave network provides essential backhaul services to remote islands that would otherwise be without electronic telecommunication networks. Furthermore, BTC provides wholesale capacity to other licensed operators (OLOs) for the provision of their services over these microwave links. BTC notes the spectrum bands for satellite-based communication services in Table 3 of the Consultation Document, and as highlighted by URCA, there are overlaps with the previously mentioned terrestrial providers' services.

Interference concerns from terrestrial providers are not unfounded, as several North American terrestrial operators have raised similar issues. One North American terrestrial telecommunications operator claimed that interference caused an "18% average reduction in network downlink throughput<sup>4</sup>". This claim should not be taken lightly, as the potential impact on already constrained microwave networks must not be underestimated. BTC urges URCA to prioritise sector-wide policies and strategies focusing on the identification, mitigation, and resolution of spectrum allocation issues that could cause interference with terrestrial operators before such allocations are introduced into the sector.

For these reasons, BTC recommends a working group as the most appropriate forum for these discussions, with the objective to arrive at agreed protocol between satellite -based network operators and mobile network operators.

**Question 9:** Do you agree with URCA's proposed safeguards to prevent any future interference issues? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 9:** BTC reaffirms its concerns expressed in response to Question eight (8). Regarding Table 5 in the Consultation Document, BTC views the table as highlighting industry best practices that are standard within the sector. While these best practices form part of a framework designed to safeguard against interference risks related to satellite-based communication services, they fall short of constituting a comprehensive sector policy that addresses the nuances of issues such as interference.

Quoting from the Consultation Document, "...URCA may consider the imposition of specific conditions on the use of radio spectrum... URCA may require satellite operators to report any planned changes to service areas or beam coverage within The Bahamas."

Any proposed safeguards must provide sufficient certainty to enable URCA, terrestrial operators, and NGSOs to assess potential impacts on existing services and determine appropriate actions to mitigate interference.

BTC encourages URCA to develop and establish robust policies and protocols to provide clarity and certainty in addressing these matters when they arise.

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<sup>4</sup> <https://www.fcc.gov/ecfs/document/1081242986780/1>

**Question 10:** Do you have any comments on the principles et revised structure proposed by URCA for satellite-based electronic communications services in The Bahamas? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 10:** BTC understands that URCA intends to amend the applicable Fee Schedule at 11B and 11C, issued on 19 February 2024, for ESIM and FSS licences, which are currently charged on a per-terminal basis as outlined in the schedule. BTC understands that URCA plans to replace these schedules with the following formula:

Annual fee per licence = \$0.70/MHz\*\*

From the Fee Schedule issued on 19 February 2024, BTC understands that terrestrial operators are subject to the following formula for standard spectrum fees:

$$**Fee = C * FBF * IF * TF * BW**$$

Where:

- C (Constant) = 8500
- IF (Island Factor) = 1 for National/New Providence, 0.2 for Grand Bahama, and 0.1 for any other island
- FBF (Frequency Band Factor) = 1 for frequencies up to 960 MHz, 0.5 for frequencies between 960-2200 MHz, 0.05 for frequencies between 2200-6700 MHz, 0.01 for frequencies between 6700-30000 MHz, and 0.005 for frequencies above 30000 MHz
- TF (Time Factor) = 1 for 1 year
- BW (Bandwidth) = 1 MHz

To illustrate the impact of the proposed change, BTC highlights the following comparative analysis. The calculation assumes a 100 MHz Bandwidth in the 2200-6700 MHz band, which is considered standard spectrum.

**Standard Spectrum Terrestrial Providers Calculations -  $Fee = C * FBF * IF * TF * BW$**

	C	FBF	IF	TF	BW	Fee
<b>New Providence/National</b>	8500	0.05	1	1	100	\$42,000.00
<b>Grand Bahama</b>	8500	0.05	0.2	1	100	\$8,500.00
<b>Other Islands</b>	8500	0.05	0.1	1	100	\$4,250.00

**Standard Spectrum NGSO Calculations - Annual fee per license = \$.70/MHz**

All Geographic Locations	C	FBF	IF	TF	BW	Fee
			0.7		100	\$70.00

Based on BTC's understanding of the proposed change and the example provided, while BTC would be assessed fees of \$42,000.00, \$8,500.00, and \$4,250.00 for 100 MHz of standard spectrum in New Providence, Grand Bahama, and Other Islands respectively, satellite

operators would be assessed a fee of only \$70.00 for the same bandwidth in the same standard spectrum across all geographical locations in The Bahamas. BTC notes that it currently utilises standard spectrum extensively within its microwave backhaul network throughout The Bahamas. Additionally, BTC employs standard spectrum in its Fixed Wireless Access (FWA) networks, previously utilised in its now-defunct WiMAX network and planned for use in its Next Generation FWA (ngFWA) network. It is also important to highlight that these applications are primarily used to supply remote island communities where the business case for subsea and terrestrial fibre build-outs are cost-prohibitive.

For these reasons, BTC strongly opposes the proposed fee structure put forward by URCA and requests clarification on the proposed fee changes, as it appears that URCA is not adhering to its own principle on a non-discriminatory fee structure and does not comport with the principle of fair competition.

BTC encourages URCA to re-examine its policy with a view to creating a level playing field for all providers in the sector.

**Question 11:** Do you have any comments on the proposed requirements for satellite service providers conducting the administration and management of their business from premises outside of The Bahamas? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 11:** In principle, BTC agrees with URCA's proposed requirements for satellite service providers conducting the administration and management of their business from premises outside of The Bahamas. However, BTC's view is that URCA's requirements lack sufficient detail and certainty to allow for further substantive comment. While BTC is a proponent of the view that satellite providers can administer and manage their business from outside of The Bahamas, the requirement to have a physical presence and demonstrate economic substance in The Bahamas as do terrestrial providers should be mandatory.

BTC acknowledges that matters of national security are inherently complex, and the emergence of new modes of electronic communication adds an additional layer of complexity. In this regard, BTC believes that a multidisciplinary working group, comprising sector providers and national security policymakers, should convene regularly to develop and implement best practices tailored to the unique circumstances of The Bahamas.

**Question 12:** Do you have any comments on other topics related to the provision of satellite-based communication services in The Bahamas which should be considered by URCA? Please provide a detailed explanation of your views, including supporting evidence where available.

**Response 12:** BTC requests clarification on the following statement in the Consultation Document, "As already set out in Individual and Class licensees, Satellite operators or service providers are liable contribute to any Universal Service Fund..."

BTC reviewed the Final Determination on "Modifications and Variations to the Electronic Communications Sector Individual Licences, Class Licences and Exemptions", ECS/2024, published on the 15 October 2024 as it relates to Class Operating License Requiring Registration (COLRR) which is applicable to Satellite operators. BTC was unable to find the provision for Universal Service Obligation in the COLRR.

BTC looks forward to future discussion on USF/USO obligations.

## **Conclusion**

BTC appreciates that satellite communication technologies are rapidly developing globally. The task of effectively regulating emerging technologies like satellite communication is challenging and fraught with unexpected developments. Where there are opportunities for terrestrial and satellite operators to collaborate, BTC's view in the context of The Bahamas is that regulatory policy intervention should safeguard the interest of all stakeholders. BTC looks forward to further participation and contribution on the topic of satellite-based electronic communications services in The Bahamas with the goal of achieving a policy environment that creates a level playing field for all sector participants.

## **Reservation of Rights**

BTC reserves the right to comment further, including adopting alternative positions, on all points of the CD or the Proposed Revised Licences and states categorically that the decision not to respond to any matter included in the CD or Proposed Revised Licences in whole or in part does not necessarily indicate agreement in whole or in part with URCA's statements in the CD or the Proposed Revised Licences, nor does any position taken by BTC in its response mean a waiver of any of BTC's rights in any way. BTC expressly reserves all its rights.