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

Statement of Results and Final Decisions

ECS 07/2026

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1. Introduction

The Utilities Regulation and Competition Authority ("URCA") is the independent regulator and competition body for the Electronic Communications Sector ("ECS") in The Bahamas, which includes fixed and mobile telecommunications services, broadcasting, and the management of spectrum and numbering resources.

In this document, URCA presents its Statement of Results and Final Decisions ("SoR") with respect to its two rounds of public consultation on the development of a Regulatory Framework for Satellite-based Electronic Communications Services in The Bahamas, conducted in accordance with sections 11 and 13 of the Communications Act, 2009 ("Comms Act").

This document, amongst other things, summarises the responses received from stakeholders, sets out URCA's assessment of the issues raised, and presents URCA's final decisions in relation to the matters consulted upon.

1.1 Background

This SoR represents the final outcome of a broader, phased process undertaken by URCA to develop a modern Regulatory Framework for Satellite-Based Electronic Communications Services in The Bahamas. URCA considers it critical that this framework accommodates, among other things, evolving satellite technologies, including direct-to-device ("D2D") services and Internet of Things ("IoT") applications, within a clear, forward-looking, and technology-neutral regulatory structure.

URCA also considers it important that this framework supports the objectives of the Electronic Communications Sector Policy 2024–2027 ("ECSP 2024–2027") and is informed by international best practices.

The consultation process was initiated through a first-round consultation document ("First Consultation Document") published on 9 December 2024[1], which sought stakeholder views on the key issues, challenges, and potential approaches to the regulation of satellite-based electronic communications services. Stakeholders were invited to submit written responses within the prescribed consultation period set out in the First Consultation Document, and a range of submissions was received reflecting diverse perspectives across the sector.

Following the close of the first consultation round, URCA reviewed and analysed the submissions received. On 8 July 2025, URCA published the responses to the First Consultation Document to allow stakeholders to review and comment on the positions advanced by other respondents. The feedback received during this process informed the development of the second-round consultation.

The second-round consultation commenced with the publication of the Second Consultation Document

[1] ECS 75/2024 can be found at https://urcabahamas.bs/wp-content/uploads/2024/12/Consultation-Document-URCA-satellite-regulatory-framework-06Dec2024.pdf.

on 11 November 2025 (the "Second Consultation Document")[2]. This document set out more detailed and refined proposals for the development of the regulatory framework and provided stakeholders with a further opportunity to comment on URCA's proposed approach. In particular, stakeholders were invited to respond to specific questions and proposals, including those informed by submissions received during the first consultation round. Interested parties were invited to submit responses within the consultation period specified in the Second Consultation Document.

This SoR reflects URCA's consideration of all submissions received across both consultation rounds and sets out URCA's final decisions in relation to the matters consulted upon.

1.2 Consultation Process

URCA wishes to thank all respondents for their participation in the consultation process and for the valuable insights and information provided. The submissions received across both consultation rounds, together with the additional comments submitted following the publication of responses to the First Consultation Document, have contributed meaningfully to the development of the regulatory framework and have informed URCA's assessment and final decisions set out in this SoR.

In response to the First Consultation Document, URCA received submissions from ten (10) parties, including The Bahamas Telecommunications Company Limited ("BTC"), a joint submission from Cable Bahamas Ltd. and Be Aliv Ltd. (collectively the "CBL Group"), Eutelsat, Rivada, Sateliot, Viasat, E-Space, Plan-S, the Global Satellite Operators Association ("GSOA"), and Starlink.

Following the publication of these submissions, URCA invited stakeholders to review and comment on the positions advanced by other respondents, and received additional comments from Plan-S, GSOA, Amazon Leo, and E-Space.

In the second consultation round, URCA received a total of sixteen (16) submissions from a broad cross-section of stakeholders, including Starlink, Amazon Leo, AST SpaceMobile, Eutelsat, Rivada, Globalstar, Sateliot, Skylo, E-Space, Plan-S, GSOA, the LoRa Alliance, BTC, the CBL Group, Purpose Partners, and Lucayan Technology Solutions (Bahamas).

Certain submissions contained confidential information, which URCA has treated in accordance with its statutory obligations and established procedures. Further information on URCA's procedures for handling information marked as confidential, as well as its consultation processes more generally, is set out in the Consultation Procedure Guidelines.[3]

1.3 Legal and Regulatory Framework

This subsection sets out the legal and regulatory framework that governs URCA's power to conduct this

[2] ECS 07/2025 can be found at https://urcabahamas.bs/wp-content/uploads/2025/11/URCA-ECS-072025-Second-Round-Consultation-on-Satelite-Framework.pdf

[3] URCA 04/2017 available at https://urcabahamas.bs/wp-content/uploads/2017/07/URCA-042017-URCA-Consultation-Procedure-Guidelines.pdf

consultation process.

Relevant Provisions of the Communications Act, 2009

Section 4 of the Comms Act provides, *inter alia*, that the electronic communications policy has as one of its main objectives, to further the interest of persons in The Bahamas in relation to the ECS by promoting affordable access to high-quality networks and carriage services in all regions of The Bahamas.

Section 5 of the Comms Act states:

> "*All policy measures, decisions, and laws to take effect in the electronic communications sector in The Bahamas shall be made with a view to implementing the electronic communications policy objectives and shall comply with the following guidelines –*
>
> *(a) market forces shall be relied upon as much as possible as the means of achieving the electronic communications policy objectives;*
>
> *(b) regulatory and other measures shall be introduced –*
> *(i) where in the view of URCA market forces are unlikely to achieve the electronic communications policy objective within a reasonable time frame, and*
> *(ii) having due regard to the costs and implications of those regulatory and other measures on affected parties;*
>
> *(c) regulatory and other measures shall be efficient and proportionate to their purpose and introduced in a manner that is transparent, fair, and non-discriminatory; and*
> *(d) regulatory and other measures that introduce or amend a significant government policy or regulatory measure (including, but not limited to, the sector policy) –*
>
> *(i) shall specify the electronic communications policy objective that is advanced by the policy or measure; and*
>
> *(ii) shall demonstrate compliance with the guidelines set out in paragraphs (a), (b) and (c).*

Section 11 of the Comms Act requires URCA to allow persons with sufficient interest a reasonable opportunity to comment on a proposed regulatory measure which, in the opinion of URCA:

(i) is of public significance; or

(ii) whose rights or interests may be materially adversely affected or prejudiced by the proposed regulatory measure.

Section 13 of the Comms Act establishes that a regulatory measure is likely to be of public significance if

it relates to a regulated sector and can lead to:

(i) a major change in the activities carried on by URCA under the Comms Act or any other enactment;

(ii) a significant impact on persons carrying on activities in a regulated sector; and/or

(iii) significant impact on the general public in The Bahamas or in a part of The Bahamas.

URCA, therefore, considers that the cumulative effect of the foregoing statutory provisions required URCA to publish the Consultation Document for public consultation to provide an opportunity for all interested persons to submit written comments to URCA on the Consultation Questions and/or any other matter contained in or relevant to the Consultation on the Regulatory Framework for Satellite-based Electronic Communications Services.

1.4 Alignment with National and International Policy Objectives

URCA has developed the Regulatory Framework for Satellite-Based Electronic Communications Services in The Bahamas, as set out in this SoR, having regard to relevant national and international policy and regulatory frameworks, including the Electronic Communications Sector Policy 2024–2027 ("ECSP 2024–2027"), the National Spectrum Plan 2026–2029 ("NSP 2026–2029")[4], and the ITU Radio Regulations, as updated by successive World Radiocommunication Conferences ("WRCs"), including WRC-23.

In particular, URCA notes the policy objectives set out in the ECSP 2024–2027 to promote continued investment in and deployment of emerging technologies, including low earth orbit ("LEO") satellite systems, as part of a broader ecosystem of satellite-based electronic communications services, as well as to enhance the resilience of electronic communications networks and services and mitigate the impact of national emergencies and disasters arising from natural and man-made hazards.

URCA further notes the Government's encouragement for the development of a regulatory framework for LEO satellite services. In this regard, URCA has developed a comprehensive and technology-neutral framework that addresses LEO systems alongside other satellite technologies and services.

URCA considers that the framework is consistent with these policy objectives, while also supporting the efficient and coordinated use of spectrum in accordance with international best practices.

1.5 URCA's Approach to Consultation Responses

Given the number of responses received and the degree of overlap in the issues raised throughout this consultation process, URCA has adopted a thematic approach to summarising stakeholder views across both general comments and responses to individual consultation questions, and to presenting its

[4] For the avoidance of doubt, references in stakeholder submissions to the National Spectrum Plan 2025–2028 relate to the Draft National Spectrum Plan consulted upon by URCA. Following consultation and approval by the Government, the Final National Spectrum Plan was adopted as the National Spectrum Plan 2026–2029.

assessment of those views.

URCA considers that this approach enables it to present the key issues raised in a clear and coherent manner, avoid unnecessary repetition, and facilitate a focused and proportionate assessment of stakeholder submissions.

Accordingly, stakeholder views have been grouped by key themes and issues identified by URCA, rather than presented on a respondent-by-respondent basis, to provide a clear and concise summary of the main positions expressed.

URCA has not attributed comments to individual respondents except where a submission raises a material, novel, or otherwise distinctive point relevant to its assessment.

URCA further considers that this approach is consistent with its statutory and procedural obligations, including section 9 of the Utilities Regulation and Competition Authority Act, 2009, section 11 of the Comms Act, and the Consultation Procedure Guidelines (URCA 04/2017)[5], which require that due consideration be given to all responses received, while affording URCA discretion as to the manner in which those responses are analysed and presented.

For the avoidance of doubt, URCA has taken into account all submissions received across both consultation rounds, including the comments provided by stakeholders in response to the submissions made during the first consultation round. The responses received during the first consultation round, together with the subsequent stakeholder comments on those responses, informed the development of the proposals set out in the Second Consultation Document.

Having regard to the foregoing, in this SoR, references to material from the first consultation round, including stakeholder responses and any subsequent comments provided in response to those submissions, are made only where necessary to provide context, to explain the evolution of URCA's position, or to address issues raised consistently across both consultation rounds.

URCA has addressed in this SoR the key issues and comments raised by respondents. However, the omission of any express reference to a particular comment or issue should not be taken to indicate that it was not considered by URCA, nor should the absence of a specific response be interpreted as agreement or disagreement by URCA with any such comment or issue, or as indicating that URCA has adopted any particular position in relation thereto.

1.6 Structure of the Remainder of this Document

The remainder of this document is structured as follows:

[5] See note 3 above.

- Section 2 provides a summary of the general comments and specific responses to the Consultation Questions received from the Respondents, together with URCA's analysis, responses and final decisions in relation thereto; and

- Section 3 sets out URCA's Conclusion.

2. Responses to the Consultation

Respondents expressed a range of views on specific aspects of the proposed framework, reflecting the diverse perspectives of stakeholders across both satellite and terrestrial segments of the electronic communications sector. While views differed on certain issues, several common themes emerged.

This section provides an overview of the principal areas of alignment and divergence across respondents, as well as the key concerns and expectations raised during the consultation process. It summarises and addresses the key comments received, including general comments, responses to the Consultation Questions, and other relevant matters.

Consistent with the approach set out above in section 1.5, URCA has considered all responses received and has focused in this section on the thematic issues and comments raised by respondents, together with URCA's analysis and responses thereto. Where respondents have raised issues falling outside the scope of the Consultation Document, URCA has not considered it necessary to provide detailed summaries of, or substantive responses to, such comments.

2.1 General Comments

This section summarises the general comments received from respondents and identifies the principal themes emerging from the consultation process. It reflects areas of broad alignment as well as key points of divergence across stakeholders, together with notable concerns and expectations regarding the proposed regulatory framework. URCA has considered these comments in developing its final decisions and sets out its response below.

2.1.1 Areas of Broad Alignment Across Respondents

URCA notes that there was broad consensus across respondents that the development of a dedicated Regulatory Framework for Satellite-Based Electronic Communications Services in The Bahamas is both timely and necessary. Respondents acknowledged the significant technological evolution in the sector, including the expansion of LEO constellation deployments, the emergence of D2D connectivity, and the increasing importance of satellite services in supporting resilience and disaster recovery in the archipelagic context of The Bahamas.

Satellite operators broadly commended URCA's iterative and transparent consultation approach and expressed support for a forward-looking, technology-neutral framework aligned with international best practices. Terrestrial operators, while raising substantive concerns regarding aspects of the proposed framework, also recognised its necessity and expressed support for innovation, where implemented within a structure that preserves competitive equity.

Respondents across stakeholder groups also recognised the potential role of satellite-based services in

expanding connectivity in underserved and remote areas and in enhancing disaster resilience. Satellite operators emphasised the demonstrated value of satellite systems, including both NGSO and GSO systems, in maintaining connectivity during and after extreme weather events, as well as their role in enabling emergency communications, IoT connectivity, and coverage in remote and underserved locations. Terrestrial operators acknowledged these potential benefits while emphasising that universal service objectives can also be achieved through terrestrial or hybrid solutions and that the value of satellite services in specific contexts does not justify preferential regulatory treatment across the broader market.

Broad support was expressed for a licensing framework that is service- and technology-neutral in principle, proportionate to the nature and scale of the services being authorised, and capable of accommodating the pace of innovation in the satellite sector. Several respondents also emphasised the importance of maintaining sufficient flexibility within the framework to accommodate ongoing international developments relating to emerging satellite technologies, particularly D2D and NTN implementations. Respondents further noted that certain technical and regulatory aspects remain subject to ongoing international studies and harmonisation efforts within the ITU-R and WRC-27 processes. In general, satellite operators emphasised that proportionality requires light-touch licensing and minimal barriers to entry, while terrestrial operators emphasised that technology neutrality requires functional equivalence in regulatory obligations for providers offering comparable retail services.

2.1.2 Key Points of Divergence

Notwithstanding areas of alignment, respondents expressed divergent views on several key issues. A principal area of divergence concerned the appropriate licensing category for satellite operators providing retail services to end-users in The Bahamas. Certain terrestrial operators maintained that satellite operators providing services functionally equivalent to those delivered by IOL holders should be subject to equivalent licensing obligations.

Moreover, concerns were raised that permitting such operators to operate under a COLRR could create a structurally unequal regulatory environment, particularly where materially lower fee obligations apply. Satellite operators, by contrast, supported a class licensing approach as proportionate and consistent with international practice, emphasising the distinct nature of their globally deployed infrastructure.
Some respondents also advocated for an “open skies”-type approach for wholesale satellite capacity providers, while others emphasised the importance of maintaining national licensing oversight and regulatory parity.

Divergent views were also expressed in relation to D2D services. Some respondents supported a model requiring formal partnerships between satellite operators and licensed mobile network operators, while others emphasised the need for a framework capable of accommodating a range of technical architectures, including both partnership-based and standalone models. Respondents also highlighted the importance of distinguishing between different categories of D2D services, including broadband, narrowband IoT, and emergency messaging use cases. Several respondents also distinguished between MSS-based D2D models operating under existing harmonised MSS frameworks and emerging IMT-based D2D approaches currently subject to ongoing international technical and regulatory studies, including within the WRC-27 process.

Views also diverged in relation to the design of the spectrum fee framework. Terrestrial operators emphasised the importance of ensuring that satellite operators contribute equitably to the costs of regulation and spectrum management and raised concerns regarding potential regulatory arbitrage. Satellite operators, while generally accepting the principle of spectrum fees, emphasised the need for fee structures that reflect the characteristics of specific service categories, particularly IoT and M2M services.

Further divergence arose in relation to enforcement and compliance. Terrestrial operators raised concerns regarding URCA's ability to enforce licence obligations against operators without a significant physical presence in The Bahamas. Satellite operators accepted the importance of regulatory compliance but advocated for flexibility in how compliance is achieved, including through remote access arrangements and the designation of regional or global points of contact.

2.1.3 Concerns and Expectations Regarding URCA's Approach

Respondents raised several broader concerns and expectations regarding URCA's approach to the development and implementation of the framework.

In particular, the importance of alignment with the ECSP 2024–2027 was emphasised. Respondents highlighted the relevance of policy directions relating to competition in the cellular mobile market, investment incentives, and the promotion of sustainable competition.

Concerns were also raised regarding regulatory sequencing and coordination with other initiatives, including the development of the National Spectrum Plan and prior licence modification processes.

Respondents further emphasised the importance of regulatory certainty and the timely conclusion of the consultation process to support investment and commercial planning. Several respondents raised concerns regarding potential duplication of licensing and fee obligations in cases involving wholesale satellite capacity provision.

Specific concerns were also raised regarding the treatment of IoT and M2M services, with respondents emphasising the need for proportionate regulatory treatment reflecting their distinct characteristics.

Issues relating to data sovereignty, lawful interception, and national security were also highlighted, with respondents emphasising the importance of robust and enforceable safeguards.

2.1.4 URCA's Response to General Comments

URCA has carefully considered all submissions received in this proceeding and the key themes identified above. The following sets out URCA's high-level response to those themes. More detailed analysis and specific comments are provided in the responses to the Consultation Questions below.

URCA considers that the proposed regulatory framework strikes an appropriate balance between promoting innovation and investment in satellite-based services and maintaining a sustainable and competitive electronic communications sector in The Bahamas, in accordance with the statutory objectives

set out in the Comms Act and the ECSP 2024–2027.

In URCA's view, providers of functionally equivalent retail services should, where appropriate, be subject to comparable regulatory obligations. At the same time, differences in service characteristics, technical architecture, and market context may justify differentiated treatment. The framework therefore seeks to ensure that competition is not distorted between providers of comparable services.

Effective enforcement is a critical component of the framework. Accordingly, URCA has established licence conditions and compliance mechanisms that can be applied to satellite operators, including those without a substantial physical presence in The Bahamas, while reflecting the operational realities of satellite service delivery.

URCA also considers that IoT and M2M services warrant a proportionate regulatory approach reflecting their distinct characteristics. URCA is of the view that the proposed framework provides for fit-for-purpose treatment of such services.

Finally, URCA confirms that the proposed framework is aligned with the ECSP 2024–2027 and will be implemented in coordination with related regulatory and policy measures, including the NSP 2026– 2029.

URCA also acknowledges that certain aspects of emerging satellite services continue to evolve internationally and may require future refinement of the framework as international harmonisation efforts and technical standards continue to develop.

2.2 Responses to Question 1: Application of Existing ECS Licence Categories to Satellite Services

Question 1:

Do you agree with URCA's proposal to apply the existing operating licence categories (Individual Operating Licence and Class Operating Licence Requiring Registration) to satellite-based electronic communications services?

2.2.1 Summary of Stakeholder Views

There was broad agreement among respondents that URCA's proposal to apply the existing operating licence categories, namely the IOL and the COLRR, to satellite-based electronic communications services is appropriate. No respondent proposed the creation of an entirely new satellite-specific operating licence category. In general, respondents considered that reliance on the existing framework promotes regulatory consistency, supports technology neutrality, and avoids unnecessary complexity or delay associated with introducing a wholly new licensing structure.

Several respondents also considered that the use of existing licence categories would provide continuity, reduce administrative burden, and facilitate market entry. Several satellite operators in particular

supported the use of class-based licensing as a proportionate means of authorising satellite-based services and as broadly consistent with international practice, including blanket or light-touch licensing models.

Notwithstanding that broad support, respondents raised several substantive concerns regarding the practical application of the existing licence categories.

A principal issue concerned the distinction between the IOL and the COLRR, and in particular the criteria identified in the Second Consultation Document for determining when an IOL is required. The CBL Group raised concerns regarding the reference to "call termination" as a relevant criterion, arguing that this concept is rooted in legacy network models and does not adequately reflect modern packet-switched, converged, or hybrid satellite-terrestrial architectures. The CBL Group suggested that this formulation may not provide sufficient regulatory certainty in the context of satellite-based services, particularly where the satellite operator does not itself perform call termination or operate a terrestrial access network.

Further, views were also expressed regarding satellite operators providing retail services directly to end-users. The CBL Group submitted that satellite-based fixed broadband providers serving the retail market in direct competition with terrestrial fixed broadband providers should be subject to equivalent licensing obligations, including an IOL, in order to preserve competitive neutrality. More generally, some respondents argued that functionally equivalent retail services should, where appropriate, be subject to comparable regulatory obligations, irrespective of the underlying technology used to deliver them. Other respondents emphasised that proportionality and technology neutrality require regulatory recognition of the technical and operational differences between satellite and terrestrial networks and cautioned against imposing terrestrial-style obligations that are not appropriate to satellite operations. Some respondents also emphasised the importance of maintaining sufficient flexibility within the framework to accommodate evolving international harmonisation efforts and ongoing international studies relating to emerging D2D and NTN implementations.

A related issue concerned the licensing treatment of wholesale satellite capacity providers. Several respondents submitted that operators providing wholesale capacity to duly licensed Bahamian service providers, without directly offering retail services to end-users in The Bahamas, should not be subject to the same licensing obligations as retail service providers. Some respondents argued that such operators should fall within the COLRR. A smaller number of respondents, including Rivada and Eutelsat, went further and advocated for a more permissive "open skies" or light-touch landing-rights approach under which wholesale space-segment providers would not be subject to a substantive operating licence requirement at all, or would only be required to satisfy minimal registration requirements.

Concerns were also raised regarding the risk of duplicative licensing and duplicate fee exposure where both the satellite capacity provider and the downstream licensed service provider are subject to licensing obligations in respect of the same service chain.

A further theme concerned blanket authorisation and device licensing. Several respondents, including GSOA, AST SpaceMobile and Skylo, welcomed URCA's recognition of the blanket authorisation concept in the Second Consultation Document, but submitted that it should be addressed expressly within the operating licence framework and not only in the spectrum-fee context. These respondents emphasised that operator-level authorisation, without per-terminal licensing, is an important feature of international satellite licensing practice and is necessary to facilitate scalable deployment, reduce administrative burden, and avoid unnecessary duplication of authorisation requirements.

Specific issues were also raised in relation to certain service categories and use cases. Eutelsat and GSOA requested that URCA expressly exempt from local licensing requirements Earth Stations in Motion ("ESIMs") mounted on foreign-registered aircraft and vessels that are duly authorised by their home administration, do not interconnect with Bahamian networks, and are only transiting or temporarily visiting Bahamian airspace or waters in accordance with applicable ITU Radio Regulations.

Several respondents also raised the need for greater clarity regarding the treatment of satellite-based IoT and M2M services, particularly where those services are complementary to terrestrial networks and do not involve direct retail provision to end-users. Plan-S and Sateliot, for example, supported the use of the COLRR for wholesale satellite IoT/M2M services but sought clarification as to how collaborative arrangements with mobile network operators should be treated. Some respondents also distinguished between MSS-based D2D and IoT models operating under existing harmonised MSS frameworks and emerging IMT-based approaches currently subject to ongoing international technical and regulatory studies. The LoRa Alliance raised a distinct issue regarding LoRaWAN-over-satellite services operating in ISM bands and sought clarity as to whether such services could be accommodated within the existing framework under appropriate technical conditions or whether a more tailored authorisation approach may be required.

Overall, respondents broadly supported URCA's decision not to create a new operating licence category, but sought greater clarity, differentiation, and proportionality in how the existing categories would apply in practice to satellite operators with differing business models, operational footprints, and service offerings.

2.2.2 URCA's Analysis

URCA has considered the responses received and remains of the view that the application of the existing ECS licensing framework to satellite-based electronic communications services is appropriate. URCA considers that the existing framework is sufficiently flexible to accommodate satellite-based services, provided that it is applied in a manner that is technologically neutral, proportionate, and responsive to the characteristics of satellite operations.

In URCA's view, the key issue is not whether new or separate licence categories are required for satellite-based services, but rather how the existing licence categories should be applied in a manner that appropriately reflects the characteristics of those services.

URCA has also had regard to its Guidance on the Licensing Regime under the Communications Act, 2009[6], which provides that an Individual Operating Licence is required, inter alia, where a licensee requires access to public land under Part XIV of the Comms Act or provides a retail service to subscribers that requires a corresponding wholesale service. URCA considers that this Guidance remains applicable in determining the appropriate licensing category.

URCA notes, however, that references in the Guidance to activities such as "call termination" are illustrative of the types of services that may give rise to the need for an IOL, rather than constituting a standalone or determinative legal test. In this regard, URCA notes the stakeholder concerns that such examples reflect legacy network configurations and may not fully capture the operational realities of

[6] ECS 19/2017 can be found at https://www.urcabahamas.bs/wp-content/uploads/2016/08/Revised-Licensing-Guidelines-Nov-21-2017.pdf

modern satellite-based or hybrid network architectures, including wholesale capacity provision, D2D arrangements, and broadband or IoT services delivered over packet-switched networks.

Accordingly, URCA considers that the distinction between the IOL and the COLRR should be applied in a manner consistent with the Comms Act, as the underlying statutory framework, and the purpose of the licensing regime, rather than through rigid reliance on specific examples. In particular, the relevant considerations include the nature of the service being provided, whether the operator provides services directly to end-users in The Bahamas, whether it requires access to public land under the Comms Act, and the extent to which it performs functions that justify the grant of an IOL.

In applying this approach, URCA considers that the provision of services directly to end-users does not, in itself, determine the appropriate licensing category. Rather, depending on the nature, scale, and impact of the services provided, such operators may be authorised under either an IOL or a COLRR.

For example, an operator providing retail services to end-users without requiring access to public land and without performing functions that would typically be expected to materially affect the structure, operation, or interconnection of electronic communications networks and services within The Bahamas, including, for example, the provision of interconnection or call termination services, the use of national numbering resources, or the operation of network infrastructure within The Bahamas, may be appropriately authorised under a COLRR, subject to proportionate conditions.

URCA has considered the submissions made in relation to wholesale satellite capacity providers. URCA accepts that an operator providing wholesale satellite capacity only, and not directly offering retail electronic communications services to end-users in The Bahamas, performs a different role within the electronic communications service chain from a retail service provider.

However, URCA does not consider that an exemption from operating licence requirements is appropriate in the Bahamian context. While URCA notes the references made to open-skies and light-touch landing-rights approaches in other jurisdictions, URCA further notes that the term "open skies" does not have a uniform regulatory meaning and that, in several jurisdictions, such approaches coexist with operational and spectrum licensing and other regulatory requirements.

URCA also notes that regulatory frameworks for NGSO and satellite services continue to evolve internationally and regionally, including within the Caribbean. URCA considers that local licensing and regulatory oversight for wholesale satellite capacity providers remains necessary to ensure regulatory visibility and accountability and to support the effective discharge of its statutory functions, including in relation to competition oversight, spectrum management, enforcement, national security, disaster preparedness, and other sector-specific obligations.

URCA therefore does not accept that wholesale satellite capacity providers should fall wholly outside the licensing framework. Rather, URCA considers that the COLRR provides the appropriate and proportionate regulatory mechanism for such operators. Although wholesale satellite capacity providers do not participate directly in the retail market, the services they provide form an integral part of the electronic communications service chain and may ultimately support the provision of electronic communications services to end-users in The Bahamas.

With respect to retail services, URCA agrees that providers of functionally equivalent services may, where appropriate, be subject to comparable regulatory obligations. At the same time, URCA does not accept

that competitive neutrality requires identical licensing treatment in all cases. Technology neutrality requires that comparable services be treated fairly, but it does not require URCA to disregard material differences in network architecture, operational footprint, spectrum use, or regulatory risk. Accordingly, the appropriate licensing treatment of a satellite operator providing retail services directly to end-users must be determined having regard to the functional characteristics of the service and the regulatory objectives engaged, rather than by automatic analogy to terrestrial network operators.

URCA notes respondents' comments that blanket authorisation is an important and appropriate feature of the satellite licensing framework and should be made more explicit. In particular, URCA considers that, where user terminals operate within authorised technical parameters under an appropriately licensed operator, separate per-terminal operating authorisation should not generally be required. URCA considers that this approach reduces unnecessary administrative burden and is aligned with the practical realities of large-scale satellite deployment.

URCA notes the comments received regarding the treatment of certain categories of ESIM operations involving foreign-registered aircraft, vessels, and other internationally mobile platforms operating within or transiting through The Bahamas.

In this regard, URCA clarifies that the framework does not provide for separate terminal-level licensing requirements for individual ESIM terminals operating on such platforms. Rather, the framework is directed toward the authorisation of operators providing ESIM services within or into The Bahamas, having regard to URCA's spectrum-management and regulatory responsibilities under the Comms Act, including the need to ensure appropriate regulatory oversight, interference management, and the protection of other spectrum users.

Further, URCA notes that section 17(1)(d) of the Comms Act provides certain exemptions applicable to foreign vessels, aircraft, and transit services passing through Bahamian territorial waters, airspace, or territory. In line with this provision in the Comms Act, URCA will not require separate authorisation for ESIM operations aboard foreign-registered aircraft or vessels that are temporarily present within Bahamian territory, waters, or airspace, are authorised by their home administration, operate on a non-interference basis, and do not provide local electronic communications services directly within The Bahamas. URCA nevertheless reserves the right to require authorisation where the nature, scale, duration, or commercial characteristics of the operation warrant regulatory oversight.

Regarding IoT, M2M, and other emerging services, URCA notes respondents' comments that such services may present distinct regulatory considerations and may not always align with traditional broadband or voice service models. URCA considers that the regulatory framework can accommodate these services on a proportionate and technology-neutral basis, including through appropriate licensing approaches, particularly where such services are complementary to, or integrated with, terrestrial networks.

2.2.3 URCA's Decision

Application of Existing Licensing Framework

URCA confirms its decision to apply the existing electronic communications licensing framework to satellite-based electronic communications services in The Bahamas, including the existing operating licence categories, including the IOL and the COLRR, together with the relevant spectrum licenses, including the ISL and the CSLRR.

URCA does not consider that the creation of a separate satellite-specific licensing category is necessary at this stage.

URCA further confirms that the existing licensing framework will be applied in a technology-neutral, service-based, and proportionate manner, having regard to the nature of the services provided, the role of the operator within the service delivery chain, and the relevant regulatory objectives engaged.

Licensing Categories

URCA confirms that the distinction between licensing categories will be applied in a manner consistent with the Comms Act and the underlying purpose of the licensing framework.

In determining the appropriate licensing treatment, URCA will have regard to relevant factors including:

- the nature and scope of the services provided;
- whether services are provided directly to end-users within The Bahamas;
- whether the operator requires access to public land under the Comms Act; and
- the functions performed by the operator within the relevant service delivery chain.

URCA further confirms that the provision of services directly to end-users will not, in itself, determine the applicable licensing category. Depending on the nature, scale, and impact of the relevant services, operators providing retail services may be authorised under either an IOL or a COLRR, as appropriate.

Wholesale Satellite Operators

URCA confirms that satellite operators providing wholesale-only satellite capacity, access, or connectivity services, and not directly offering retail services to end-users in The Bahamas, will generally be authorised under a class-based licensing framework, subject to proportionate regulatory conditions and oversight, except where the nature, scale, or operational characteristics of the relevant activities warrant individual licensing treatment under an IOL.

ESIM Authorisation

URCA confirms that ESIM operations will be authorised under a service-level or operator-level licensing framework without requiring separate authorisation for individual user terminals operating within defined technical and operational parameters.

IoT and M2M Services

URCA confirms that satellite-based Internet of Things (“IoT”) and Machine-to-Machine (“M2M”) services, including wholesale and complementary service models, may be authorised under the existing licensing framework on a proportionate basis, including under a COLRR where appropriate.

URCA acknowledges that certain emerging satellite service models and D2D implementations continue to evolve internationally and may require future refinement of the framework as international harmonisation efforts and technical standards continue to develop.

Foreign-Registered Aircraft and Vessels

With respect to ESIM operations on foreign-registered aircraft and vessels operating within The Bahamas, URCA recognises that such operations may, in appropriate circumstances, benefit from exemptions or simplified treatment consistent with section 17(1)(d) of the Comms Act and established international practice. URCA therefore will not require separate authorisation for ESIM operations aboard foreign-registered aircraft or vessels that are temporarily present within Bahamian territory, waters, or airspace, are authorised by their home administration, operate on a non-interference basis, and do not provide local electronic communications services directly within The Bahamas.

2.3 Responses to Question 2: Spectrum Fee Framework for Satellite-Based Services

Clarification Regarding the Consultation Proposal

As a preliminary matter, URCA notes that the Second Consultation Document referred to a turnover-linked component of "three percent (5%)". This reflected a drafting error. The intended consultation proposal was a turnover-linked component of five percent (5%) applied to Relevant Turnover. In reaching its decision, URCA has taken account of stakeholder submissions in their entirety, while recognising that the consultation proposal was intended to be five percent (5%).

Question 2:

a. *Do you agree with URCA's proposed hybrid spectrum-fee model for FSS, comprising a BSD $40,000 flat base authorisation fee and a turnover-linked component of five percent (5%) of Relevant Turnover where annual revenues exceed BSD $500,000?*

   If not, please provide reasons and any alternative structures URCA should consider.

b. *Do you agree with URCA's proposed BSD $3,000 annual spectrum fee for ESIM service providers, applied on a blanket authorisation basis?*

   If not, please provide supporting rationale and propose an alternative approach.

c. *Do you agree that URCA's existing Methodology for Setting Bandwidth-Related Fees (ECS 01/2016) should apply to cases where satellite operators require exclusive-use spectrum assignments?*

   If not, please provide supporting rationale and propose an alternative approach.

d. *Do you support URCA's proposal to periodically review the satellite spectrum-fee methodology (e.g., every three years, in line with the National Spectrum Plan review cycle)?*
   If not, please indicate an alternative review interval or process.

2.3.1 Summary of Stakeholder Views

Question 2 comprised four sub-parts addressing: (a) the proposed hybrid spectrum-fee model for FSS operators; (b) the BSD $3,000 annual blanket authorisation fee for ESIM service providers; (c) the application of URCA's existing Bandwidth-Related Fees Methodology (ECS 01/2016) to exclusive-use spectrum assignments; and (d) the proposed periodic review of the satellite spectrum-fee methodology.

Question 2(a) – Hybrid FSS Fee Model

Responses to the proposed hybrid fee structure, comprising a BSD $40,000 flat base authorisation fee and a turnover-linked component of five percent (5%) of Relevant Turnover where annual revenues exceed BSD $500,000, were mixed.

The majority of satellite operators and industry associations opposed the inclusion of a turnover-linked component. These respondents argued that satellite spectrum is internationally coordinated, shared, and non-exclusive in nature, and that revenue-based fees are structurally inappropriate for spectrum that carries low scarcity value and minimal opportunity cost. Concerns were raised that turnover-linked fees would create barriers to market entry, discourage investment, penalise subscriber growth, and ultimately increase costs for end users, particularly in underserved areas. Several respondents also noted the practical challenge of attributing Relevant Turnover to a single jurisdiction in the context of multi-jurisdictional satellite operations. The preferred alternative advanced by this group was a simplified flat fee calibrated to recover URCA's actual administrative and spectrum management costs.

A further concern raised within this group was that the proposed fee, when added to the existing annual URCA fee and the Communications Licence Fee, would result in a cumulative revenue-linked regulatory burden materially higher than comparable international benchmarks for satellite markets of similar scale. In this regard, Starlink submitted a specific calculation indicating that the combined regulatory fee obligation, incorporating the existing URCA fee of 1.448% of Relevant Turnover, the Communications Licence Fee of 3%, and the proposed turnover-linked spectrum component of 5%, would produce a total revenue-linked charge of approximately 9.448% where an operator’s Relevant Turnover equals or exceeds BSD $500,000 in a given licence year. Starlink characterised this as unusually high by international standards and as directly undermining affordability and service expansion objectives, particularly in respect of Family Island connectivity.

As an alternative, Starlink proposed that URCA not adopt any additional spectrum usage fee in shared frequency bands, submitting that such an approach would align spectrum charges with the non-scarcity and shared nature of satellite spectrum, avoid duplication of existing regulatory cost recovery mechanisms, support affordable access and service expansion across all islands, and encourage continued investment in satellite broadband infrastructure. Starlink acknowledged that the hybrid framework represents a significant structural improvement over the previous per-terminal fee approach but maintained that a turnover-linked spectrum fee remains economically distortive and inconsistent with the stated policy goals of the electronic communications framework.

A smaller number of respondents expressed support for the hybrid model in principle. These respondents noted that a revenue-linked component supports proportionality by aligning fees with the scale of commercial activity generated in The Bahamas, and that the threshold design appropriately reduces the burden on smaller or newly entering operators. Lucayan Technology Solutions (Bahamas) made the

proposal that URCA consider using the spectrum fee structure as a policy instrument to incentivise deployment in underserved areas, including through reduced fees or Universal Service Fund contribution offsets for operators exceeding minimum Family Island coverage requirements, and that URCA publish the methodology assumptions underpinning fee derivation alongside a commitment to a ceiling on fee movements between review cycles.

BTC acknowledged URCA's rationale for distinguishing between exclusive-use terrestrial spectrum and shared, internationally coordinated satellite spectrum, accepting that these resources have distinct economic and regulatory characteristics. BTC nonetheless noted that the practical market impact of satellite services, particularly where delivered directly to retail end users, must be considered in assessing fee structures and broader regulatory obligations. BTC further observed that the hybrid model represents a significant departure from traditional bandwidth-based pricing and emphasised that clear and predictable application of the framework will be essential to maintaining operator confidence and avoiding unintended competitive distortions.

The CBL Group agreed with the hybrid model in principle but conditioned that agreement on three substantive points. First, CBL contested URCA's framing in section 2.2.2 of the Consultation Document, arguing that it is technically unfeasible to separate satellite-based electronic communications services from spectrum and orbital resources, and that URCA's own proposal to base fees on a percentage of turnover is itself an acknowledgment that spectrum and communications licence fees are intertwined in the satellite ECS context.

Second, CBL submitted that the hybrid fee should apply exclusively to ITU-allocated and coordinated Ku-band and Ka-band frequencies for FSS services, and that blanket authorisation of frequency use for NGSO constellation services is inappropriate given that Ka and Ku bands have been demonstrated internationally to be scarce, ISLs should be required, consistent with the approach proposed for MSS D2D services. CBL further recommended that gateway earth stations for NGSO satellite constellations operating in The Bahamas, which require substantially larger spectrum amounts than user terminals and require interference protection, should be required to hold both Individual Operating Licences and Individual Spectrum Licences.

Third, CBL took issue with URCA's characterisation of The Bahamas' jurisdiction over satellite spectrum in section 2.2.4, asserting that as a fully-fledged ITU member state The Bahamas exercises full jurisdiction jointly with other member states over satellite spectrum and orbital resources. CBL noted that URCA's own assurance that communication licence fees will be imposed on satellite operators at the same rates and under the same conditions as those applied to terrestrial operators supports its Question 1 recommendation that URCA issue IOLs to fixed broadband satellite service providers offering retail end-user services.

Rivada, GSOA and Eutelsat all raised the concern that the licensing framework, as proposed, appears to require the same or similar licensing obligations from both satellite capacity providers and satellite service providers, which would result in duplicative spectrum fee assessments for the same underlying capacity. These respondents urged URCA to explicitly clarify the treatment of these two categories of operator to avoid this outcome.

Question 2(b) – ESIM Blanket Authorisation Fee

There was broad support for the use of a blanket authorisation approach for ESIMs. Views differed, however, on whether the proposed BSD $3,000 fee was appropriately calibrated. Respondents agreed that individual terminal licensing would be impractical and unnecessary given the standardised technical and radiofrequency characteristics of ESIM devices, and that a flat annual fee at the authorisation level is consistent with administrative cost recovery and provides regulatory clarity.

Some respondents submitted that the fee level should remain proportionate to URCA's actual administrative costs. In this regard, Skylo Technologies noted by way of specific comparison that the equivalent FCC blanket licence fee for mobile earth stations in the United States was USD $2,060 in 2025 and could cover many millions of terminals, and that MSS terminals in the European Union are licence-exempt under ECC Decision ECC/DEC/(12)01. Skylo submitted that BSD $3,000 is disproportionately high relative to the number of MSS user terminals realistically expected to operate in The Bahamas and urged URCA to remain focused on administrative cost-based recovery and to ensure that the fee methodology applied to MSS-based D2D and IoT services does not deter the adoption of life-saving emergency services. Other respondents expressed support for the proposed blanket-authorisation approach and did not raise concerns regarding the proposed fee level.

A recurring recommendation across several submissions was that ESIM terminals aboard foreign-registered aircraft and vessels operating within Bahamian jurisdiction on a non-interference basis and without connection to a domestic public electronic communications network should be explicitly exempt from local licensing requirements and associated fees. Respondents noted this approach is consistent with established international practice.

Question 2(c) – Bandwidth-Related Fee Methodology for Exclusive-Use Satellite Spectrum

Respondents who addressed this sub-question were generally supportive of applying ECS 01/2016 as a structured and transparent framework for exclusive-use spectrum fee calculation, subject to a shared condition that the methodology function strictly as a cost-recovery instrument. Respondents cautioned against the application of value-based or revenue-linked elements to exclusive-use satellite gateway assignments, which are tied to internationally coordinated GSO and NGSO systems and subject to spectrum-sharing obligations under the ITU Radio Regulations.

The CBL Group agreed with the application of ECS 01/2016 and advanced the principle that the same spectrum fee should apply for the same category of spectrum use irrespective of whether the operator is satellite-based or terrestrial. CBL illustrated this with the specific example of a gateway earth station in New Providence requiring a terrestrial radio link in the Ku band, where the applicable fee under Table 4 of ECS 01/2016 would be BSD $85 per MHz — the same rate as would apply to a terrestrial operator using equivalent spectrum. CBL also noted a prior concern regarding the proportionality of fees applicable to frequency bands above 30,000 MHz, submitting that any application of ECS 01/2016 to satellite operators must remain consistent with the underlying principles of proportionality, cost-orientation, and non-discrimination, and that fees must be justified by actual spectrum scarcity and usage characteristics.

Globalstar and Skylo Technologies proposed the introduction of a dedicated Frequency Band Factor (FBF) of 0.1 within ECS 01/2016, applicable to mobile-satellite service (MSS) exclusive-use spectrum assignments in any band. Both operators advanced the same technical rationale: MSS bands are globally

harmonised and have been ITU-coordinated for decades; these allocations are reflected in the Bahamian national frequency allocation table; local assignment of MSS spectrum carries no meaningful economic opportunity cost because no other service can operate in those bands without doing so on a strictly non-interference, non-protection basis; and the exclusive-use requirement is a technical necessity arising from the omni-directional architecture of MSS transceivers rather than a regulatory choice that forecloses alternative spectrum uses. Both respondents further noted that D2D services operating in exclusive MSS spectrum are already available for deployment, and that immediate regulatory clarity on the applicable fee calculation methodology is therefore required. URCA notes that several respondents emphasised that MSS exclusive-use assignments differ fundamentally from traditional terrestrial exclusive-use spectrum models in both technical and operational terms.

Skylo Technologies also questioned the continued suitability of the existing bandwidth-related fee methodology for certain satellite applications and suggested that URCA consider a more administrative cost-based fee structure, together with lower spectrum charges, as an alternative approach.

Plan-S supported the continued application of the formula-based approach under ECS 01/2016, including the retention of differentiated factors within the fee formula — Base Constant, Bandwidth, Technology Factor, Interference Factor, and Frequency Band Factor — noting that these elements appropriately reflect the technical, economic, and interference characteristics of exclusive-use spectrum. Plan-S referenced analogous bandwidth-based fee methodologies in Germany and France as supporting international comparators for this approach.

Starlink took a more fundamental position, opposing the use of exclusive bandwidth fees for satellite applications altogether and proposing that URCA defer to existing ITU coordination rules for access to MSS spectrum without imposing local exclusive-use charges. Starlink further proposed that fees for MSS spectrum used for D2D services, to the extent any fee applies, be treated under the same category as FSS spectrum, subject to the modifications it recommended to the overall fee structure under Question 2(a).

Question 2(d) – Periodic Review

Support for periodic review of the satellite spectrum-fee methodology was essentially universal. Divergence was confined to the appropriate review interval and the criteria governing fee adjustments between cycles.

Most respondents supported review intervals of three to five years, with several expressing a preference for the longer end of that range on the basis that satellite operators plan and invest on extended timescales. Sateliot contended that the three-year cycle proposed by URCA may be too recurrent given that satellite operators typically operate on the basis of long-term commercial, contractual, and financing arrangements, and that frequent or repeated reviews of the fee methodology may introduce commercial uncertainty and complicate long-term planning.

Respondents consistently emphasised that any fee adjustments should be evidence-based and limited to demonstrable changes in URCA's regulatory costs or material changes in market conditions, and that robust stakeholder consultation with adequate transition periods should form an integral part of any review process. BTC specifically proposed that URCA articulate in advance the objective criteria that would trigger fee adjustments, rather than leaving this to discretionary assessment.

Starlink advocated that reviews should focus on assessing whether the existing methodology remains appropriate rather than presuming fee increases over time, and that adjustments must be justified by demonstrable changes in regulatory costs, spectrum management responsibilities, or spectrum scarcity and not by operator revenues or market growth. Lucayan Technology Solutions (Bahamas) proposed that review triggers be set on a fixed-date automatic basis rather than left to URCA's discretion, and that URCA commit in advance to a ceiling on fee movements between review cycles.

Concern was expressed that reviews presuming fee increases, rather than assessing whether the existing framework remains appropriate, would undermine investment confidence and adversely affect the sustainability of satellite services over time.

2.3.2 URCA's Analysis

Hybrid FSS Fee Model

URCA notes the divergence in responses to Question 2(a) and recognises that this reflects a genuine and substantive policy tension between two legitimate regulatory objectives: cost recovery and proportionality on the one hand, and revenue-adequate incentive structures and competitive fairness on the other.

URCA's departure from the per-MHz fee structure proposed in the first-round consultation was a response to the concerns raised by terrestrial operators, satellite operators and industry associations. URCA does not consider that cost recovery is the only legitimate basis for spectrum fees in the satellite-based electronic communications services context.

A spectrum licence confers a legal right to operate commercially within the Bahamian jurisdiction, and a fee structure that is wholly decoupled from the commercial value of that authorisation would result in materially similar regulatory contributions from satellite operators generating materially different revenues from Bahamian customers. This outcome would be inconsistent with the principle of proportionality and the broader objectives of URCA's mandate under the Comms Act.

URCA further considers that the FSS spectrum fee framework must be applied in a manner that supports competitive neutrality across the electronic communications sector. In particular, where satellite-based and terrestrial electronic communications services compete directly in the provision of retail services to end users, materially divergent fee levels may give rise to competitive distortions and undermine fair competition.

Accordingly, URCA considers that it is appropriate for the FSS spectrum fee framework to reflect, to some extent, the scale of commercial activity within The Bahamas, while ensuring that the overall regulatory burden remains proportionate and consistent with URCA’s statutory objectives under the Comms Act. Regarding the concerns that turnover-linked fees would create barriers to (i) market entry, (ii) discourage investment, (iii) penalise subscriber growth, and (iv) would be particularly acute in underserved areas, URCA considers that:

- a turnover-based structure can support market entry by ensuring that new or low-revenue operators make lower contributions during the early stages of commercial deployment;
- adverse effect on investment is likely to be limited: the main investments of satellite systems are typically fixed and not driven primarily by the number of Bahamian customers served;
- impact on subscriber growth will not be material: a modest turnover-linked contribution should not materially alter the affordability for end users, wherever there are located;
- the fee structure will not affect coverage in underserved areas: unlike terrestrial networks, where extending coverage may require incremental site deployment and backhaul investment, satellite coverage is typically available across wide regions once the satellite system is authorised and operational.

Accordingly, URCA considers that it would not be proportionate for operators with materially different levels of commercial activity within The Bahamas to be subject to identical spectrum fee obligations, and that it is appropriate for the fee framework to reflect, to some extent, such differences in scale.

URCA accepts, however, that the calibration of the turnover-linked component requires careful reassessment in light of the cumulative fee burden identified in submissions. The full revenue-linked regulatory burden applicable to FSS operators comprises the existing URCA annual regulatory fee of 1.448% of Relevant Turnover, the Communications Licence Fee of 3%, and the proposed turnover-linked spectrum component of 5%, resulting in a combined charge of approximately 9.448% where an FSS operator's Relevant Turnover equals or exceeds BSD $500,000 in a given licence year.

URCA notes the concerns that this cumulative figure is high relative to international benchmarks for satellite markets of comparable scale, and that it may have the unintended effect of deterring service expansion and investment, including in the Family Islands where satellite connectivity is most socially and economically valuable.

URCA considers that these concerns are relevant to the calibration of the turnover-linked component and has taken them into account, together with international benchmarks, the cumulative regulatory cost burden, and the Government's policy objectives on affordable access, in determining the appropriate level of the fee.

URCA does not accept the position advanced by Starlink and others that shared satellite spectrum is categorically unsuited to any revenue-linked fee structure. The degree of spectrum sharing in FSS Ka/Ku bands is a relevant factor in calibrating the fee level, but it does not eliminate the economic value of the authorisation or negate URCA's authority to impose proportionate charges for access to the Bahamian market.

URCA notes the concern raised by Rivada, GSOA and Eutelsat regarding the risk of duplicative fee assessments where both a satellite capacity provider and a satellite service provider are separately licensed in respect of the same underlying capacity. This is a genuine structural concern that requires resolution in the fee framework design, and URCA will address it explicitly in its final decision below.

In light of the above, URCA considers that the concerns raised by stakeholders do not warrant abandoning the proposed hybrid fee model. However, URCA accepts that the calibration of the turnover-linked component requires adjustment to ensure that the overall regulatory fee burden remains proportionate and does not undermine investment, affordability, or service expansion objectives.

URCA also considers it necessary to address the concerns in relation to the potential for duplication where turnover-based charges arise under the annual URCA fee, the Communications Licence Fee, and the proposed FSS spectrum fee model.

URCA emphasises that these fees serve distinct regulatory purposes. In particular, the annual URCA fee contributes to the funding of URCA's general regulatory functions and oversight of the electronic communications sector; the Communications Licence fees contribute to the broader regulatory framework governing the provision of electronic communications services; and spectrum fees relate specifically to the authorisation, allocation, and management of spectrum resources within The Bahamas.

Notwithstanding this distinction, URCA recognises the importance of ensuring that the combined effect of such charges does not result in disproportionate or duplicative regulatory burdens in respect of the same underlying services. Accordingly, URCA's final decision reflects a calibrated approach to the turnover-linked component and incorporates safeguards to ensure proportionality and consistency with the broader regulatory framework.

Regarding the submission on the practical challenge of attributing Relevant Turnover to a single jurisdiction in the context of multi-jurisdictional satellite operations, URCA notes that Relevant Turnover is defined in the Comms Act and encompasses revenues attributable to the provision of electronic communications services, spectrum use, and related activities within The Bahamas during the relevant financial year. URCA considers that licensees are able, in most cases, to determine and report revenues attributable to specific jurisdictions for commercial and regulatory purposes. Accordingly, in the context of satellite-based services, only revenues attributable to activities within The Bahamas are to be taken into account.

The CBL Group's recommendation that URCA require ISLs for NGSO FSS gateway earth stations is noted and accepted in principle. Gateway earth stations involve concentrated, protection-seeking spectrum use that is materially different from the shared, user-terminal operations covered by the blanket authorisation framework. URCA will address the gateway earth station licensing question in the context of the final decisions under Question 1.

The proposal by Lucayan Technology Solutions (Bahamas) to use the spectrum fee structure as a policy instrument for incentivising Family Island coverage is noted. URCA considers this a legitimate policy consideration and notes that such matters were taken into account in the determination of the spectrum fee structure and will continue to form part of URCA's broader assessment of measures to promote service availability throughout The Bahamas.

ESIM Blanket Authorisation

URCA notes the strong stakeholder support for the proposed BSD $3,000 blanket authorisation fee for ESIM service providers. URCA considers that a flat-fee approach is suitable in this context, having regard to the shared and internationally coordinated nature of ESIM spectrum use, as well as the administrative considerations associated with issuing blanket authorisations.

Regarding the recurring suggestion to exempt ESIMs aboard foreign-registered aircraft and vessels from local licensing requirements and fees, URCA clarifies that, under the proposed framework, authorisation is not required at the level of individual ESIM terminals. Rather, authorisation is required at the level of the satellite operator providing services using spectrum resources within The Bahamas.

URCA does not consider it appropriate for such operations to fall entirely outside the scope of the regulatory framework. Where satellite operators provide services to ESIMs within the jurisdiction of The Bahamas, such services must be authorised in accordance with the ECS licensing and regulatory framework.

URCA notes the observation that the proposed fee level exceeds comparable blanket authorisation fees in other jurisdictions, including those applied by the United States Federal Communications Commission. However, URCA considers that such comparisons must be assessed in light of differences in market scale, regulatory frameworks, and cost structures. In particular, fee levels in larger jurisdictions may benefit from economies of scale that are not directly comparable to the Bahamian context.

URCA considers that the proposed fee is appropriate at this stage, having regard to the administrative and regulatory costs associated with ESIM authorisation and oversight. URCA does not consider it necessary to revise the fee at this time. URCA will review the fee, from time to time, as a part of the proposed periodic review set out below.

Fee Methodology for Exclusive-Use Spectrum Assignments

URCA considers that ECS 01/2016 provides an appropriate and transparent starting point for fee calculation where satellite operators require exclusive-use spectrum assignments. The formula-based approach ensures regulatory consistency and proportionality, and the differentiated FBF structure is well-suited to reflect varying scarcity characteristics across frequency bands. URCA further accepts the principle advanced by the CBL Group that the same spectrum fee should apply for the same category of spectrum use irrespective of whether the operator is satellite-based or terrestrial, and that any application of ECS 01/2016 to satellite operators must remain consistent with the underlying principles of proportionality, cost-orientation, and non-discrimination.

The joint proposal by Globalstar and Skylo Technologies for a new MSS-specific Frequency Band Factor of 0.1 applicable across bands used for mobile-satellite services is noted. URCA has considered the technical arguments advanced in support of this proposal, including the internationally harmonised and pre-coordinated nature of MSS bands, the limited opportunity cost associated with local assignment, and the technical characteristics of MSS systems, including their exclusive-use requirements.

URCA further notes that these submissions raise considerations regarding the application of ECS 01/2016 to MSS-based services, including emerging D2D and IoT use cases. URCA will take these submissions into account, as appropriate, in the ongoing application and future development or revision of the spectrum fee framework.

URCA has also considered submissions advocating a more administrative cost-based approach to exclusive-use satellite spectrum fees. However, URCA remains of the view that ECS 01/2016 provides an appropriate, transparent and technology-neutral framework for determining fees applicable to exclusive-use spectrum assignments.

Periodic Review

URCA notes the broad stakeholder support for periodic review of the spectrum fee framework, together with the emphasis placed on maintaining fee stability between review cycles, applying clear and objective criteria for any adjustments, and allowing for appropriate transition periods.

URCA also notes the preference expressed by several respondents for a longer review interval, including a five-year cycle, having regard to the long-term investment and contractual commitments characteristic of satellite operations.

Notwithstanding these views, URCA considers that a review cycle of three (3) years remains appropriate. This approach reflects the need to ensure that the spectrum fee framework remains responsive to evolving market conditions, technological developments, and changes in spectrum usage, while maintaining an appropriate degree of regulatory certainty.

Accordingly, URCA will review the applicable spectrum fee methodology at least every three (3) years, in alignment with the National Spectrum Plan review cycle. Any adjustments to fee levels will be determined having regard to the underlying rationale of the fee framework and all relevant factors, including changes in satellite usage, market developments, and the need to ensure consistency with the broader electronic communications sector framework. URCA nevertheless reserves the right to conduct an earlier review of the spectrum fee framework where warranted by material technological, market, regulatory, or competitive developments within the electronic communications sector.

2.3.3 URCA's Decision

Question 2(a) – Hybrid FSS Fee Model

URCA has decided to adopt a hybrid spectrum fee model for FSS operators comprising:

(i) a flat annual spectrum licence fee of **BSD $40,000**; and
(ii) a turnover-linked component of **3% applied only to the portion of Relevant Turnover exceeding BSD $500,000** in a given licence year.

URCA considers that this structure is proportionate and reflects, to an appropriate extent, the scale of

commercial activity associated with the use of spectrum within The Bahamas. The application of the turnover-linked component on a marginal basis ensures that fees increase progressively with the level of activity, while avoiding disproportionate impacts on operators with lower levels of Relevant Turnover.

URCA recognises that stakeholders expressed differing views regarding both the appropriateness of the proposed benchmark comparisons and the extent to which the cumulative regulatory fee burden should influence the calibration of the spectrum fee. While URCA does not consider that any single benchmark or fee metric should be determinative, it considers that the originally proposed turnover-linked component of five percent (5%) would not appropriately reflect the principles of proportionality set out in the Comms Act.

Having regard to stakeholder submissions, international practice, the cumulative effect of applicable regulatory charges, and the need to support investment, affordability and service expansion, URCA has determined that a turnover-linked component of three percent (3%), applied only to Relevant Turnover exceeding BSD $500,000, strikes a more appropriate balance between proportionality, competitive neutrality and efficient spectrum management.

URCA does not accept that the shared or internationally coordinated nature of satellite spectrum precludes the application of a turnover-linked fee but considers that this characteristic is relevant in calibrating the appropriate level of such fees. URCA also recognises that internationally coordinated and shared satellite spectrum may differ from traditional terrestrial spectrum models in certain technical, operational, and economic respect.

For the avoidance of doubt, Relevant Turnover shall be determined in accordance with the Comms Act and shall be limited to revenues attributable to activities conducted within The Bahamas. For the purposes of calculating the turnover-linked component, Relevant Turnover shall be determined by reference to the licensee's Relevant Turnover for the preceding financial year. Accordingly, the spectrum fee payable in a given licence year shall be calculated based on the Relevant Turnover generated in the previous financial year.

URCA notes stakeholder submissions regarding the practical determination and attribution of Relevant Turnover in the context of multi-jurisdictional satellite operations and integrated service models. Having considered those submissions, URCA remains of the view that Relevant Turnover should be determined in accordance with the definition set out in the Comms Act. Where implementation issues arise in practice, URCA remains willing to engage with licensees and provide clarification regarding the application of that definition where appropriate.

Where a licensee has not generated Relevant Turnover in the preceding financial year, including in the case of new entrants, only the flat annual spectrum licence fee shall be payable for that licence year. URCA may, where necessary, make adjustments to the applicable fee where revised or audited Relevant Turnover figures are subsequently submitted.

For the avoidance of doubt, the provision relating to licensees that have not generated Relevant Turnover in the preceding financial year applies only to operators that have not generated Relevant Turnover from

activities conducted within The Bahamas during that period.

Where an existing operator transitions to the regulatory framework established by this Decision and has generated Relevant Turnover from activities conducted within The Bahamas during the preceding financial year, the turnover-linked component shall be calculated by reference to that Relevant Turnover. Such operators shall not be treated as new entrants for the purposes of calculating the applicable spectrum fee.

For illustrative purposes, the operation of the hybrid spectrum fee model is set out in the table below:

Table 1: Illustration of FSS Spectrum Fee Structure

Relevant Turnover (Previous Year)	Calculation	Total Annual Spectrum Fee
No Relevant Turnover (e.g. first year of operation)	Flat fee only	$40,000
Up to $500,000	Flat fee only	$40,000
$1,000,000	$40,000 + (3% × $500,000)	$55,000
$5,000,000	$40,000 + (3% × $4,500,000)	$175,000

Question 2(b) – ESIM Blanket Authorisation

URCA has decided to adopt a blanket authorisation framework for ESIM service providers, subject to an annual spectrum fee of **BSD $3,000**. URCA does not consider it necessary to revise the proposed fee at this time. The fee will be subject to periodic review.

URCA considers that this approach is appropriate having regard to the standardised technical and radiofrequency characteristics of ESIM devices and the administrative efficiencies associated with authorising services at the operator level rather than at the level of individual terminals. URCA clarifies that authorisation is not required at the level of individual ESIM terminals, but rather at the level of the satellite operator providing services using spectrum resources within The Bahamas.

URCA does not consider it appropriate to exempt ESIM operations within The Bahamas from the licensing framework. Where satellite operators provide services to ESIM terminals within the jurisdiction, such services must be authorised in accordance with the electronic communications' regulatory framework of The Bahamas.

Question 2(c) – Fee Methodology for Exclusive-Use Spectrum Assignments

URCA has decided to apply its existing Bandwidth-Related Fees Methodology (ECS 01/2016) to satellite operators requiring exclusive-use spectrum assignments.

URCA considers that ECS 01/2016 provides a structured, transparent, and technology-neutral framework for determining spectrum fees and that its application is consistent with the principles of proportionality,

cost-orientation, and non-discrimination.

URCA further considers that the same spectrum fee should apply for the same category of spectrum use, irrespective of whether the operator is satellite-based or terrestrial, subject to the specific technical characteristics of the assignment.

URCA notes the proposals advanced by respondents regarding MSS-specific adjustments, including the introduction of a dedicated Frequency Band Factor. URCA does not consider it necessary to adopt such changes at this stage. URCA will take these submissions into account, as appropriate, in the ongoing application and future development of the spectrum fee framework.

Question 2(d) – Periodic Review

URCA has decided to implement a periodic review of the satellite spectrum fee framework on a **three (3) year cycle**, aligned with the National Spectrum Plan review cycle.

URCA considers that this interval appropriately balances the need for regulatory certainty with the need to ensure that the framework remains responsive to evolving market conditions, technological developments, and changes in spectrum usage.

Any adjustments to fee levels arising from such reviews will be determined having regard to the underlying rationale for the fee framework and a consideration of all relevant factors, including market developments, changes in satellite usage, and the need to ensure consistency with the broader electronic communications sector framework.

Gateway Earth Stations

URCA has considered the CBL Group's submission that gateway earth stations operated by NGSO satellite operators in The Bahamas are materially distinct from user terminals and from the shared spectrum operations covered by the blanket authorisation framework. Gateway facilities involve concentrated, interference-sensitive spectrum use requiring dedicated frequency coordination and protection and are therefore not appropriately addressed through the CSLRR.

Accordingly, URCA confirms that satellite operators requiring gateway earth station facilities in The Bahamas will be required to hold an Individual Spectrum Licence in respect of the relevant gateway spectrum assignment, with fees calculated in accordance with the Bandwidth-Related Fees Methodology (ECS 01/2016) having regard to the assigned bandwidth, applicable frequency band factor, technology factor, and interference factor.

In this context, URCA agrees with the principle advanced by the CBL Group that equivalent exclusive-use spectrum assignments should be subject to a consistent fee methodology irrespective of whether the assignment supports satellite-based or terrestrial services. URCA considers that the application of the ECS 01/2016 methodology to gateway earth station assignments is consistent with the principles of proportionality, cost-orientation, and non-discrimination. For the avoidance of doubt, the hybrid FSS fee

model applies at the operator authorisation level and does not replace or offset the bandwidth-based fee applicable to exclusive-use gateway assignments under ECS 01/2016. Accordingly, where an operator holds both an FSS authorisation and a gateway ISL, each fee shall apply independently.

The question of the appropriate operating licence category applicable to gateway operators is addressed in URCA's analysis and decisions under Question 1 above. In particular, URCA notes that gateway earth station operators requiring access to public land in The Bahamas for the purposes of establishing or operating gateway facilities will be required to hold an IOL in accordance with Part XIV of the Comms Act, in addition to the Individual Spectrum Licence required in respect of the relevant gateway spectrum assignment. Where a gateway operator does not require access to public land and does not provide services involving interconnection with Bahamian public electronic communications networks or the use of national numbering resources, a COLRR will generally be the appropriate operating licence category, subject to URCA's assessment of the nature and functions of the relevant operations in accordance with the licensing framework set out under Question 1 above.

2.4 Responses to Question 3: Regulatory Framework for D2D Satellite Services

Question 3:

a. *Do you agree that D2D satellite technology has potential to enhance mobile coverage and network resilience across The Bahamas, particularly for remote islands and underserved areas?*
If not, please provide reasons and supporting evidence.

b. *Of the three proposed regulatory approaches—*

Option A: *Partnership Model (IMT spectrum, secondary use via MNOs);*

Option B: *Stand-alone Model (MSS spectrum, independent satellite operations); and*

Option C: *Hybrid Model (IMT + MSS flexibility)—*
which option do you consider most appropriate for The Bahamas and why?
Please identify any technical, commercial, or policy considerations that URCA should take into account when determining the preferred framework.

c. *Do you have any views on which IMT frequency bands should be designated for implementation under Option A? Please provide reasons or supporting evidence for your views.*

d. *Do you have any views on L and S spectrum bands being designated for implementation under Option B? Please provide reasons or supporting evidence for your views?*

e. *Do you have views on the need for additional licensing or coordination requirements for D2D services?*

f. *Do you foresee the need for additional IMT spectrum to facilitate the implementation of Option A for D2D service provision*, and if so, what frequency bands might be most

suitable to support such deployments in The Bahamas?

g. *Do you foresee any regulatory or technical challenges arising from the introduction of D2D services in The Bahamas (e.g., network security, handset compatibility, interference with terrestrial networks, or consumer protection matters)?*

If so, please outline potential mitigation measures URCA should consider.

2.4.1 Summary of Stakeholder Views

Question 3 comprised seven sub-parts addressing: (a) the potential of D2D satellite technology to enhance mobile coverage and network resilience across The Bahamas; (b) the preferred regulatory approach among three proposed models (c) the IMT frequency bands to be designated for implementation under Option A; (d) the designation of L- and S-band spectrum for implementation under Option B; (e) the need for additional licensing or coordination requirements for D2D services; (f) the need for additional IMT spectrum to facilitate Option A deployments; and (g) the regulatory and technical challenges arising from the introduction of D2D services in The Bahamas.

Question 3(a) — Potential of D2D

Respondents expressed broad support for the potential of D2D technology to enhance mobile coverage, network resilience, and service continuity across The Bahamas, particularly in remote, underserved, and maritime areas. Respondents consistently identified the country's archipelagic geography as a structural barrier to universal terrestrial coverage and considered D2D to be a complementary solution capable of extending connectivity to remote Family Islands and maritime zones, including in circumstances where terrestrial infrastructure may be disrupted by extreme weather events.

The CBL Group acknowledged the potential of D2D services but recommended that URCA implement regulatory provisions restricting their use to unserved or underserved areas. This position was based on concerns that unrestricted deployment may place additional demands on IMT spectrum and may give rise to competitive disadvantages for terrestrial operators that are unable to participate in partnership arrangements with satellite operators.

BTC similarly recognised the potential of D2D services, while emphasising that their introduction represents a material evolution of the electronic communications environment requiring careful regulatory calibration. BTC further submitted that satellite-based services should operate as complementary and contingency-based capabilities, rather than as substitutes for terrestrial infrastructure.

Question 3(b) — Preferred Regulatory Approach

With respect to the proposed regulatory approaches, views were mixed.

CBL Group expressed a preference for Option A, the Partnership Model, under which D2D services utilise IMT spectrum held by licensed MNOs on a secondary, non-interfering basis. The CBL Group characterised this model as proven in other jurisdictions, implementable under existing licensing frameworks without

requiring new specialized obligations, and consistent with protecting existing investments in terrestrial infrastructure.

BTC also expressed support for a partnership-based approach as its preferred model, subject to conditions including that D2D use of IMT spectrum must remain supplemental and non-substitutive, that technical coordination requirements be clearly defined, and that accountability for interference management and regulatory compliance be explicitly assigned.

The majority of satellite operators and industry associations, including GSOA, AST SpaceMobile, Starlink, Globalstar, Lucayan Technology Solutions (Bahamas), Plan-S, and Purpose Partners, supported Option C, the Hybrid Model, as the most appropriate framework. These respondents emphasised that The Bahamas' geography requires a framework capable of supporting both approaches simultaneously: partnership-based operations for densely populated islands such as New Providence and Grand Bahama, and standalone MSS-based operations for remote Family Islands and maritime zones where terrestrial infrastructure is absent or economically unviable. Proponents of Option C also noted that it enables near-term deployment through existing MNO partnerships while establishing a clear pathway for transition to MSS-based D2D as standards and device ecosystems mature while retaining flexibility to accommodate evolving international standards and future WRC-27 outcomes.

Sateliot and Skylo Technologies diverged from the majority of satellite operators by preferring Option B as the immediate-term solution. Both respondents emphasised that MSS-based D2D frameworks currently benefit from more mature international harmonisation, coordination mechanisms, and 3GPP standards integration than emerging IMT-based D2D models. They further argued that Option A's reliance on IMT spectrum on a non-interference basis introduces regulatory uncertainty pending the outcome of WRC-27. Skylo additionally noted that Option B's carrier-neutral architecture, which is not dependent on partnerships with specific MNOs, represents a structural advantage over the partnership model.

Sateliot also expressed concern that D2D frameworks dependent on exclusive MNO-satellite partnerships could lead to market concentration and limit opportunities for other satellite operators and service models. Sateliot therefore encouraged URCA to promote non-exclusive partnership arrangements and transparent network-integration criteria to support competition and innovation.

Starlink supported Option C but made a distinctive submission objecting to two conditions proposed in the Consultation Document: first, it urged URCA to remove any requirement that D2D operators demonstrate their operations primarily serve remote or underserved areas, arguing that serving urban areas is necessary to build the network redundancy required for effective emergency response; and second, it encouraged URCA to allow supplemental voice coverage as soon as technically viable, rather than limiting initial deployments to messaging and light data services.

Rivada and Eutelsat did not express a preference among the three options but advanced related submissions concerning the distinction between wholesale satellite capacity providers and retail service providers. Rivada reiterated its support for an open-skies framework under which space-segment-only providers would not be subject to substantive operating licence requirements (or would be subject only to minimal registration requirements), with licensing obligations applying principally to entities providing satellite-based communications services directly to end users. Eutelsat similarly emphasised the distinction between wholesale satellite capacity providers and retail service providers, submitting that wholesale capacity-only operators are not typically subject to licensing requirements in many jurisdictions

and that licensing and spectrum obligations should primarily rest with entities providing services directly to end users.

Question 3(c) — IMT Frequency Bands for Option A

Respondents provided a range of views on the suitability of IMT bands for partnership-based D2D deployments. CBL Group proposed that only low-band IMT spectrum, specifically 450 MHz, 700 MHz, 800 MHz, and 900 MHz, be designated for D2D implementation, arguing that designation of mid-band or high-band spectrum would constitute a direct competitive threat to terrestrial operators providing high-capacity broadband services.

Starlink recommended the designation of IMT spectrum in the 1.4–2.6 GHz range on the basis that these frequencies balance coverage and capacity. AST SpaceMobile similarly identified the 698–2700 MHz range as relevant, noting that no additional IMT spectrum would be needed provided URCA permits secondary, non-interfering satellite transmissions within currently assigned bands.

Globalstar requested that any IMT band designations for Option A include explicit protections for incumbent MSS services in adjacent bands, noting its long-standing operations in harmonised MSS spectrum that could be affected by adjacent IMT-based D2D transmissions.

Purpose Partners specifically recommended that URCA focus on the frequency bands defined in ITU-R Recommendation M.1036 when assessing IMT band designations for Option A, to ensure alignment with regional and global harmonisation frameworks.

Several respondents noted that IMT band designations should await the outcomes of WRC-27 Agenda Item 1.13, given the ongoing ITU-R studies on the use of IMT spectrum for satellite D2D services.

Question 3(d) — L and S Band Designations for Option B

Many respondents supported the use of L- and S-band MSS spectrum for standalone D2D services, noting their favourable propagation characteristics, including greater reliability during adverse weather conditions, which is particularly relevant given The Bahamas' exposure to hurricanes. Respondents also highlighted the established international regulatory framework governing the use of MSS spectrum.

AST SpaceMobile identified 1980–2025 MHz and 2160–2200 MHz as the relevant bands for The Bahamas. Skylo Technologies additionally identified 3GPP bands n250 through n256 as the applicable standardised band references for MSS L- and S-band D2D services, noting these bands have been allocated for satellite use for decades and are essential for global harmonisation and economies of scale.

Plan-S specifically highlighted the 2 GHz MSS band as vital for innovative satellite-based solutions and proposed that URCA consider shared use of this band among multiple operators to foster competition and innovation, citing Australia's regulatory model as a relevant precedent.

The CBL Group opposed immediate L- and S-band designation, recommending that URCA defer this decision until the conclusion of WRC-27 Agenda Item 1.13 to ensure international compatibility and prevent harmful interference, and noting that Option B models remain at trial stage in many jurisdictions.

Question 3(e) — Additional Licensing or Coordination Requirements

Respondents raised a number of licensing, coordination, and implementation considerations, including the need for clear delineation of responsibilities between satellite operators and MNOs, proportionate licensing frameworks depending on the role of the operator, and appropriate coordination mechanisms to manage interference and ensure coexistence with terrestrial networks.

Skylo and Globalstar submitted that no additional licensing or coordination requirements are necessary for D2D in MSS frequency bands beyond the existing international framework. Purpose Partners similarly submitted that no additional licensing is required for MSS-based D2D services and specifically argued that ISLs should not apply to MSS spectrum given that these bands are already governed by a stable international regulatory framework under the ITU Radio Regulations that ensures non-interference.

Sateliot advocated for a COLRR as the appropriate licence category for wholesale-only MSS operators to avoid duplicating obligations held by terrestrial partners. AST SpaceMobile proposed a differentiated licensing approach: mandatory MNO partnerships when using IMT spectrum under Option A, and direct authorisation to satellite operators when using MSS spectrum under Option B.

Plan-S proposed the initiation of international coordination activities rather than their completion should be sufficient for regulatory authorisation purposes, recognising the inherent complexity and duration of the ITU coordination process. Plan-S also supported the introduction of a regulatory sandbox or trial licence framework to allow URCA to evaluate D2D performance and manage interference risks before full commercial authorisation. BTC requested that proposed notification, non-objection, and termination requirements be carefully calibrated to ensure they do not create operational risks during emergencies.

Question 3(f) — Additional IMT Spectrum Requirements

Responses to this sub-question were closely connected to the positions expressed under Question 3(c) on IMT band designations. The general position across submissions was that D2D under Option A can be accommodated within existing IMT spectrum holdings on a secondary, non-interfering basis, subject to appropriate technical conditions and MNO consent, without requiring new spectrum to be identified or allocated for this purpose.

Question 3(g) — Regulatory and Technical Challenges

A range of technical and regulatory challenges were identified across submissions, clustering around interference management, network handoff, device compatibility, consumer protection, and national security.

On interference, the CBL Group raised concerns about the need for technical measures to protect terrestrial networks, while Sateliot identified spectrum coexistence as a key risk requiring clear power flux density limits and emission standards. Lucayan Technology Solutions (Bahamas) made submissions on network handoff and emergency communications, proposing that licensees be required to demonstrate tested handoff procedures between terrestrial and satellite paths validated through annual testing aligned with ITU-R and 3GPP standards, and that emergency calls originating via satellite route correctly to Bahamian response centres with automatic location identification.

Starlink advanced the distinct position that URCA should remove restrictions on in-motion use and roaming during disasters, arguing that such restrictions would delay emergency response, and should remove geographic restrictions on the basis that urban network redundancy is essential for effective resilience.

The CBL Group flagged national security risks in remote regions where regulating user access may be difficult, and raised competitive protection concerns for broadband providers lacking the capacity to enter partnership models.

2.4.2 URCA's Analysis

URCA notes the broad stakeholder consensus regarding the potential of D2D satellite technology to enhance connectivity and network resilience across The Bahamas. URCA considers that these capabilities are of particular importance in light of the country's archipelagic geography and its exposure to natural hazards, which may significantly impact terrestrial network availability.

URCA notes the CBL Group's recommendation to restrict D2D deployment to unserved or underserved areas. While URCA acknowledges the commercial concern underpinning this position, a geographic restriction of this kind would be difficult to define, administer, and enforce in practice, and would risk inhibiting the network redundancy that gives D2D its resilience value, including in densely populated areas such as New Providence and Grand Bahama where terrestrial network failure during a major hurricane would have the most severe public impact. URCA therefore does not accept a blanket geographic restriction as a condition of the D2D framework, though targeted service area conditions may be appropriate in specific licensing contexts.

In assessing the proposed regulatory models, URCA considers that flexibility is a key requirement given the evolving nature of D2D technologies and the differing technical characteristics of MSS-based and IMT-based implementations. A rigid adoption of either a purely partnership-based or a purely standalone MSS model would not adequately accommodate the range of emerging deployment scenarios. Partnership models facilitate near-term deployment using existing terrestrial spectrum and infrastructure, while MSS-based models provide a viable pathway for broader coverage and resilience, particularly in remote and maritime areas. URCA accordingly considers that a flexible and technology-neutral framework is necessary to support innovation, promote efficient spectrum use, and enable the development of electronic communications services in accordance with its statutory objectives. URCA also recognises that MSS-based D2D models currently benefit from more mature international harmonisation and coordination frameworks than emerging IMT-based D2D implementations.

URCA notes the CBL Group's and BTC's preference for Option A and their respective concerns about protecting existing terrestrial investments. The partnership model provides important safeguards for incumbent MNOs, including the ability to manage interference within their own licensed spectrum. These safeguards will be incorporated into the conditions governing Option A operations under the Hybrid Model. However, URCA does not consider Option A alone to be sufficient to meet the connectivity and resilience objectives of the framework, particularly for remote Family Islands and maritime zones where MNO commercial decisions may not support deployment.

URCA notes Sateliot's and Skylo's substantive arguments for prioritizing Option B given the regulatory uncertainty surrounding IMT spectrum use for D2D pending WRC-27. URCA accepts that IMT-based D2D deployments under Option A should operate on a non-interfering, secondary basis pending the conclusion of WRC-27 Agenda Item 1.13 and the incorporation of its outcomes into the national framework. URCA notes that further technical and interference assessments may be undertaken in advance of WRC-27 to inform the subsequent IMT band designation process. URCA notes the divergence between CBL Group's

low-band-only proposal and Starlink's and AST SpaceMobile's preference for a broader frequency range extending to 2.6 GHz and will assess the appropriate designations in the context of those studies.

URCA notes the technical case for L- and S-band designation for Option B operations, noting that these allocations are already reflected in the Bahamian national frequency allocation table and are internationally coordinated under the ITU Radio Regulations. URCA does not accept CBL Group's recommendation to defer all L- and S-band designation until after WRC-27, as MSS spectrum in these bands does not carry the same pre-WRC-27 uncertainty as IMT spectrum use for D2D. AST SpaceMobile's identification of 1980–2025 MHz and 2160–2200 MHz, and Plan-S's proposal for shared use of the 2 GHz MSS band modelled on Australia's approach, are noted as useful technical inputs for the detailed band designation process.

URCA accepts the broad principle that regulatory obligations should be aligned with the role of the operator in the service value chain. For wholesale-only MSS capacity providers, a COLRR is the appropriate authorisation, consistent with URCA's decisions under Question 1. For Option A deployments, the MNO partnership requirement provides a coherent accountability framework. URCA further accepts Plan-S's proposal that initiation of ITU coordination activities should be sufficient for authorisation purposes, as requiring completion would create an effectively permanent barrier to entry given the duration of ITU processes. This standard will apply subject to a condition of continued good-faith coordination and compliance with any resulting requirements.

The LoRa Alliance's proposal for an "Option D" framework based on ECC Decision (25)02 raises a regulatory question that goes beyond the D2D models addressed in Options A, B, and C. LoRaWAN-over-satellite operates in ISM bands on a licence-exempt basis and serves low-power, low-data-rate IoT applications that are structurally different from the broadband and messaging D2D services contemplated in the consultation. URCA will assess whether the COLRR framework can be adapted with specific technical parameters, including power flux density limits, duty-cycle restrictions, and interference safeguards to accommodate LoRaWAN-over-satellite without necessitating a separate licence category.

URCA considers that the range of technical and regulatory challenges identified by respondents can be addressed through appropriate licensing conditions, technical standards, and regulatory oversight. URCA accepts Lucayan Technology Solutions (Bahamas)'s submissions on network handoff testing and emergency call routing as technically sound and proportionate and will incorporate these requirements into the relevant licence conditions. On Starlink's proposal to remove in-motion and geographic restrictions during emergencies, URCA notes the legitimate operational concern but considers that blanket removal requires further assessment of interference and regulatory oversight implications and may be addressed in the context of the Disaster Management Regulations review.

2.4.3 URCA's Decision

URCA has decided to adopt a flexible and phased regulatory framework for the introduction of D2D satellite services in The Bahamas. Under this framework, D2D services will initially be introduced through controlled trial and testing activities prior to full commercial authorisation. URCA will facilitate such trials through a structured regulatory sandbox or alternative trial and testing framework. In this regard, URCA has earmarked Innovation Reef, its proposed Regulatory Sandbox, within its 2026 Annual Plan as a potential vehicle for this purpose.

However, as Innovation Reef is subject to a forthcoming public consultation process, the specific terms and conditions governing its operation will be determined following the conclusion of that process. In the event that the Innovation Reef consultation is delayed or determines that a general regulatory sandbox is not appropriate, URCA will establish an alternative trial and testing framework specific to D2D services to ensure that the phased introduction of D2D is not impeded.

Regulatory Model

URCA has decided to adopt Option C, the Hybrid Model, as the regulatory framework for D2D satellite services in The Bahamas. The framework will accommodate both Option A partnership-based operations using IMT spectrum held by licensed MNOs, and Option B standalone operations using MSS spectrum in the L- and S-bands, subject to appropriate regulatory safeguards. The two pathways will operate under distinct licensing and technical conditions reflecting their different spectrum bases and service delivery architectures. URCA further recognises that the applicable technical and coexistence conditions for IMT-based and MSS-based D2D deployments may continue to evolve alongside ongoing international harmonisation efforts and WRC-27 outcomes.

Deployment Scope and Geographic Applicability

URCA will not impose a blanket geographic restriction limiting D2D deployment to unserved or underserved areas. D2D services may be deployed across The Bahamas subject to applicable technical and licensing conditions. For the avoidance of doubt, URCA considers D2D satellite services, in their current form, to be complementary and supplementary to terrestrial mobile networks, particularly for resilience, emergency communications, maritime connectivity, and coverage extension purposes, and not a substitute for continued terrestrial network deployment and investment.

URCA has considered submissions regarding the ECSP 2024–2027 and the Government's stated intention to refrain from introducing further competition in the cellular mobile market during the life of the policy. URCA does not consider that the framework adopted in this Decision constitutes the introduction of an additional cellular mobile network operator or a further liberalisation of the cellular mobile market contemplated by the ECSP. Rather, URCA considers that D2D services, in their current state of development, represent a distinct category of satellite-enabled communications service that is complementary and supplementary to terrestrial mobile networks and supports the ECSP 2024-2027 objectives relating, inter alia, to resilience, innovation, connectivity and emergency communications.

URCA will continue to monitor developments in the D2D ecosystem, including through trials, testing activities referenced below and industry developments, and may review the framework as the technology and market evolve.

IMT Band Designations for Option A

URCA will not finalise specific IMT band designations for Option A prior to the conclusion of WRC-27 Agenda Item 1.13. In the interim, Option A deployments will be permitted on a secondary, non-interfering basis within IMT bands currently assigned to licensed MNOs, subject to the consent of the relevant MNO and compliance with applicable technical coordination requirements. URCA also recognises that the applicable technical coordination and coexistence conditions may require further refinement as international studies, technical standards and WRC-27 outcomes continue to evolve. URCA will continue to monitor relevant international developments and may undertake further technical and interference assessments, where appropriate, to inform any future decisions regarding the designation of IMT spectrum for D2D operations.

L and S Band Designations for Option B

URCA confirms the designation of L- and S-band MSS spectrum for Option B standalone D2D operations, consistent with the existing national frequency allocation table set out in the National Spectrum Plan 2026-2029 and the internationally coordinated MSS allocations under the ITU Radio Regulations. The specific band parameters, including the relevant 3GPP NTN bands and power flux density limits, will be set out in the technical conditions and/or annexes to the spectrum licenses. URCA will further assess the proposal for shared use of the 2 GHz MSS band.

Licensing Requirements

Operating and spectrum licensing requirements will be aligned with the role of the operator within the relevant D2D service value chain and the nature of the proposed deployment model and the type of spectrum resources required.

Satellite operators providing wholesale-only D2D satellite connectivity, access, or capacity services will generally be authorised under a COLRR in circumstances where the provision of such services does not require access to public land, interconnection with public electronic communications networks, or other operational characteristics warranting individual licensing treatment.

Where the nature, scale, or operational characteristics of the relevant D2D deployment warrant enhanced regulatory oversight, including circumstances involving interconnection arrangements, public-land access, deployment of individually licensed infrastructure, or other individually licensed activities, URCA may require the operator to obtain an IOL. URCA may, where appropriate, provide additional guidance regarding the operational characteristics and deployment scenarios that may warrant individual licensing treatment.

For Option A partnership deployments, the satellite operator will be required to hold the appropriate operating licence authorisation and operate pursuant to a formal commercial and technical arrangement with a licensed MNO holding the relevant IMT spectrum assignment. In such cases, the relevant IMT spectrum rights will remain associated with the licensed MNO’s existing spectrum licence(s).

Spectrum licenses will generally only be required in connection with Option B MSS-based deployments where the satellite operator is authorised to use spectrum directly. In such circumstances, a CSLRR will

generally apply to shared or non-exclusive spectrum use, while exclusive-use spectrum assignments will require an ISL.

Regulatory obligations and technical conditions will be applied proportionately having regard to the nature of the relevant service, operational model, deployment maturity, spectrum-usage characteristics, and the distinction between wholesale satellite-capacity arrangements and consumer-facing service obligations.

Regarding Starlink's request that supplemental voice coverage be enabled as soon as technically viable, URCA considers that voice services raise additional regulatory and public-interest considerations that must be resolved before such authorisation can be granted. In particular, URCA would need to be satisfied that the relevant arrangements for emergency-call routing, caller-location accuracy, numbering and interconnection, quality of service, consumer protection, or lawful access are technically and operationally feasible.

Service Scope and Phasing

Following the conclusion of authorised trials and URCA's assessment of the results, initial commercial D2D deployments may be authorised for messaging and low-rate data services. The introduction of supplemental voice coverage will be subject to a separate assessment of technical maturity, competitive and market impact, and consumer protection implications, to be initiated following the publication of this SoR. URCA may, where appropriate, provide additional guidance regarding the intended scope and technical interpretation of "low-rate data services" for implementation purposes.

Technical Licence Conditions

URCA will, at a minimum, incorporate the following technical conditions into the relevant licenses, including trial licenses issued for D2D operations, and, where appropriate, in any supporting regulatory instruments:

- Pre-operational interference assessment and coordination with incumbent terrestrial and satellite operators prior to commencement of D2D operations under both Option A and Option B
- Interference prevention and mitigation obligations, including the implementation of technical measures to prevent harmful interference to incumbent services, ongoing monitoring of interference levels during operations, and the prompt application of mitigation measures, including power reduction, frequency adjustment, or temporary cessation of operations, where harmful interference is identified or reasonably anticipated. URCA may, where appropriate, provide additional guidance regarding the technical and operational basis upon which harmful interference may be considered "reasonably anticipated".
- Power flux density limits for IMT-based D2D to protect incumbent terrestrial service quality
- Incident reporting obligations for interference events
- Tested handoff procedures between terrestrial and satellite paths, validated through annual testing aligned with ITU-R and 3GPP standards

- Correct routing of emergency calls originating via satellite to Bahamian response centres with automatic location identification
- Consumer transparency requirements on device compatibility, coverage, and roaming
- Network security requirements, including measures to prevent unauthorised access to D2D services and obligations to cooperate with national security and law enforcement authorities
- Lawful interception compliance, including the implementation of technically feasible interception capabilities consistent with applicable Bahamian legal requirements
- Coverage reporting obligations, including the submission of accurate coverage maps to URCA on an annual basis and the publication of consumer-accessible coverage information

Partnership Arrangement Notifications

URCA will impose notification requirements applicable to partnership arrangements between satellite D2D operators and licensed Bahamian MNOs in order to maintain appropriate regulatory visibility over commercial, competition and market related matters, operational, and spectrum-related arrangements associated with the provision of D2D services within The Bahamas.

Such notification requirements may include the provision of information relating to the identity of the parties, the applicable deployment model, relevant spectrum arrangements, the nature of the proposed D2D services, and any exclusivity or other material operational arrangements relevant to URCA's regulatory and market oversight functions. Where necessary for regulatory assessment purposes, URCA may also require the provision of relevant agreements or extracts thereof, subject to applicable confidentiality protections.

These notification requirements will support URCA's ability to monitor potential competition, exclusivity, interoperability, and market-concentration, and foreclosure concerns arising within the developing D2D ecosystem. Such notification requirements may also assist URCA in monitoring evolving spectrum coexistence, operational coordination, and interference-management considerations associated with D2D deployments.

Trial Licensing

URCA will facilitate D2D trials through a structured regulatory sandbox or alternative trial and testing framework, as applicable. Where implemented, Innovation Reef will serve as the primary mechanism for facilitating such trials.

Operators seeking to conduct D2D trials will be required to apply to URCA for participation and will be subject to defined trial conditions, including time-limited authorisation, technical monitoring requirements, interference reporting obligations, and an obligation to share operational findings with URCA.

Trial authorisations will be granted for a minimum period of twelve (12) months, unless otherwise determined by URCA having regard to the specific characteristics of the proposed deployment.

Participation in such trials, including those conducted through Innovation Reef, will not confer any priority or entitlement to subsequent commercial authorisation.

Following the assessment of trial outcomes, URCA will determine whether further regulatory measures, including adjustments to licensing, spectrum use, or service scope, are required prior to full commercial deployment. URCA may, where appropriate, provide additional guidance regarding the criteria and considerations relevant to the transition from trial authorisation to commercial deployment.

Ongoing Review

URCA will continue to monitor international developments relating to D2D satellite services, including evolving 3GPP NTN standards, ITU-R studies, WRC-27 outcomes, MSS and IMT coexistence frameworks, handset and device interoperability developments, and emerging international regulatory approaches applicable to D2D deployments. In doing so, URCA will also take into account operational experience and technical findings arising from authorised D2D trials and deployments within The Bahamas.

URCA further confirms that the D2D framework may be reviewed and updated where appropriate in light of future technological, operational, competition, spectrum-management, or international regulatory developments relevant to the implementation of D2D services within The Bahamas.

2.5 Responses to Question 4: Regulatory Framework for Satellite-Based IoT Services

Question 4:

a. *Do you agree that satellite-based IoT services have significant potential to enhance connectivity, resilience, and service delivery across The Bahamas, particularly in remote and maritime areas?*
   If not, please provide reasons and supporting evidence.

b. *Do you agree with URCA's proposed regulatory approach for developing a satellite-based IoT framework?*
   If not, please suggest an alternative regulatory approach and rationale.

c. *Do you foresee any technical, regulatory, or coordination challenges, for example, related to interference management arising from the deployment of satellite-based IoT services in The Bahamas?*

   If so, please outline potential mitigation measures URCA should consider.

d. *What are your views on spectrum bands that URCA should consider designating for satellite-based IoT? Please provide supporting reasons and evidence.*

2.5.1 Summary of Stakeholder Views

Question 4 comprised four sub-parts addressing: (a) the potential of satellite-based IoT services to enhance connectivity, resilience, and service delivery across The Bahamas; (b) URCA's proposed regulatory approach for developing a satellite-based IoT framework; (c) technical, regulatory, and coordination challenges arising from satellite-based IoT deployment; and (d) spectrum bands URCA should consider designating for satellite-based IoT services.

Question 4(a) — Potential of Satellite-Based IoT

Nearly all of the respondents agreed that satellite-based IoT services have significant potential to enhance connectivity, resilience, and service delivery across The Bahamas. Respondents consistently identified the country's archipelagic geography as a structural barrier to ubiquitous terrestrial IoT deployment and considered satellite-based IoT an effective complementary solution capable of extending connectivity to remote Family Islands, maritime zones, and areas where terrestrial deployment is technically impractical or economically inefficient.

Respondents identified numerous use cases including maritime vessel tracking and fisheries management, environmental and climate monitoring, disaster preparedness and emergency response, utilities and infrastructure monitoring across Family Islands, agriculture and aquaculture management, logistics and asset tracking, and tourism and remote property monitoring.

Several respondents particularly emphasised the resilience dimension of satellite IoT systems, noting that such systems operate independently of local ground infrastructure and may therefore remain operational when terrestrial networks are disrupted or damaged by hurricanes, flooding, power outages, or other extreme events.

Generally, respondents consistently characterised satellite IoT services as complementary to terrestrial networks rather than substitutes for terrestrial broadband infrastructure, noting their low-power, low-data-rate, narrowband, and wide-area coverage characteristics.

Starlink adopted the position that dedicated satellite IoT services, while holding strong potential, are a subsidiary capability within a broader D2D and broadband connectivity ecosystem. Starlink submitted that its own D2D framework can inherently support IoT applications, and that future satellite technology generations will increasingly prioritize direct-to-handset broadband services with IoT forming a foundational layer for specialized resilience and connectivity needs rather than a standalone service category in its own right.

Question 4(b) — URCA's Proposed Regulatory Approach

There was broad support for URCA's proposed approach of accommodating satellite-based IoT services under existing licensing categories, with class-based authorisation mechanisms as the default pathway for narrowband and low-impact deployments. Respondents generally agreed that this approach promotes legal certainty, regulatory proportionality, administrative efficiency, scalability, and streamlined market entry, and that operator-level authorisation is well suited to the large device counts and standardised service profiles characteristic of IoT deployments.

Several specific concerns and proposals were nonetheless advanced.

CBL Group expressed support for the proposed regulatory approach but took exception to the inclusion of "broadband" within the proposed satellite IoT framework, submitting that the framework's stated scope, as described in section 2.4.1 of the Second Consultation Document, is expressly limited to low-data-rate services for tracking, telemetry, and sensor networks using L-band and S-band MSS spectrum allocations, and that broadband services fall outside that scope. CBL also reiterated its right to provide terrestrial IoT/M2M services under its IOL and licensed 4G and 5G spectrum, whether in partnership with satellite IoT operators or on a standalone basis.

Sateliot emphasised the importance of maintaining a clear distinction between wholesale technical obligations for satellite operators and consumer-facing regulatory responsibilities that should properly rest with Bahamian MNOs or service providers interacting directly with customers. Sateliot submitted that applying obligations intended for broadband satellite providers or retail ECS operators to wholesale narrowband MSS IoT services would create disproportionate compliance burdens and risk slowing adoption of services that are fundamentally different in nature.

BTC expressed support for accommodating satellite IoT under existing licensing categories but raised a concern about regulatory symmetry and practical enforceability, submitting that URCA must establish adequate mechanisms to monitor compliance by operators whose infrastructure and data may be located outside The Bahamas, and that local representation or accountability mechanisms should be clearly defined where retail services are provided directly to Bahamian consumers.

Lucayan Technology Solutions (Bahamas) submitted that the proposed COLRR and CSLRR licensing approach is sound while identifying three areas requiring clarification: spectrum efficiency standards referencing ITU-R recommendations for narrowband MSS; data governance obligations regarding data handling and lawful access for IoT data from government, utilities, and critical infrastructure; and notification requirements for wholesale partnership arrangements to prevent de facto monopolies.

Plan-S objected to the restriction in section 2.4.3 of the Second Consultation Document limiting satellite IoT transmissions to MSS-allocated or URCA-designated IMT bands under MNO partnership arrangements. Plan-S submitted that this restriction does not adequately accommodate emerging satellite IoT technologies operating in licence-exempt spectrum under ECC Decision (25)02, a framework governing Low Power Devices communicating with Satellites (LPD-S) in the 862–870 MHz band in Europe, which Plan-S argued is directly applicable to the 902–928 MHz band in The Bahamas. Plan-S noted that Germany and Denmark have already incorporated this model into their national regulations, and that the EU's Radio Spectrum Policy Group has acknowledged this model in its opinion on satellite direct-to-device connectivity policy.

The LoRa Alliance advanced a closely related proposal, recommending that URCA adopt ECC Decision (25)02 as an explicit international reference model for enabling LPD-S communications within harmonised unlicensed spectrum, characterised as "Option D", and sought regulatory clarity on whether LoRaWAN-over-satellite can be accommodated within the existing authorisation regime with appropriate technical conditions, or whether a dedicated satellite IoT/LoRaWAN licence category is required. The Alliance submitted that LoRaWAN-over-satellite has operational and technical characteristics fundamentally different from traditional broadband satellite licenses or general class licenses given its reliance on ISM bands and its low-power, low-data-rate profile.

Question 4(c) — Technical, Regulatory, and Coordination Challenges

Most respondents considered that interference and coordination challenges associated with MSS-based satellite IoT services are manageable within existing international regulatory frameworks, provided that appropriate technical conditions and ITU coordination mechanisms are applied. Globalstar and Skylo submitted that they do not foresee any technical or regulatory challenges for satellite-based IoT services operating in MSS bands, on the basis that these bands are governed by established ITU coordination frameworks and 3GPP standards providing sufficient safeguards. Skylo noted that IMT-band satellite IoT introduces materially greater complexity for terrestrial network planning and coordination, warranting continued study.

Sateliot identified the primary regulatory challenge not as interference or technical complexity but as the risk of over-regulation, specifically, the risk of applying compliance, security, and lawful interception obligations designed for broadband satellite providers or retail ECS operators to wholesale narrowband MSS IoT services. Sateliot recommended that URCA maintain a proportionate class-based licensing structure, avoid duplicative obligations already carried by Bahamian MNOs, and limit operational reporting to interference, service footprint, and system performance. Sateliot also noted the importance of adhering to ITU Radio Regulations coordination requirements, including the requirements set out in Article 9.14 of these Regulations, and maintaining alignment with 3GPP NTN standards.

In the context of interference management, Plan-S submitted a comparative analysis of PFD limits under ECC Decision (25)02 against the FCC's Supplemental Coverage from Space rules and Ofcom's Direct-to-Device framework. Plan-S submitted that ECC Decision (25)02 PFD limits are more stringent than both FCC and Ofcom equivalents, with out-of-band emission limits approximately 26–27 dB more conservative than FCC and Ofcom values, demonstrating that the European model constitutes a robust and conservative basis for ensuring coexistence in shared-spectrum environments. Plan-S proposed that URCA enable use of the 902–928 MHz band for satellite IoT services by relying on the technical conditions developed within Europe, submitting that no Bahamas-specific coordination measures are necessary beyond existing international frameworks for MSS L- and S-band operations.

BTC raised the challenge of practical enforcement against operators based outside The Bahamas, submitting that consumer protection, emergency communications, and data protection obligations must be consistently and practically enforceable regardless of where operator infrastructure is located.

The CBL Group reserved all comments on interference management and coordination challenges pending the conclusion of WRC-27 studies and ITU Study Group deliberations, urging URCA to monitor ongoing international studies and lead a coordinated national and regional position on these matters.

Question 4(d) — Spectrum Bands

Respondents' views on appropriate spectrum bands for satellite-based IoT clustered around three categories: MSS L- and S-bands under existing ITU allocations; the 2 GHz MSS band specifically; and the 902–928 MHz band as a licence-exempt pathway.

On MSS L- and S-bands generally, Skylo, Globalstar, and AST SpaceMobile supported the designation of existing MSS spectrum, noting that these bands are internationally allocated, ITU-coordinated, and compatible with existing regulatory frameworks. Skylo specifically recommended that URCA prioritize dedicated MSS L- and S-band spectrum to avoid interference risks associated with terrestrial IMT frequency reuse, noting alignment with 3GPP Release 17 standards and an established global device ecosystem.

On the 2 GHz MSS band specifically, Sateliot recommended that URCA reserve a portion of S-band spectrum for 3GPP Release 17 5G NTN NB-IoT, specifically 3GPP Band n256 covering 1980–2010 MHz uplink and 2170–2200 MHz downlink. Sateliot submitted that this band is crucial for NTN NB-IoT operators and provides the necessary spectrum conditions for reliable connectivity, robust propagation in adverse weather, and seamless integration with existing terrestrial mobile infrastructure.

Plan-S similarly identified 1980–2010 MHz and 2170–2200 MHz as its primary spectrum proposal, recommending that URCA consider dedicating a portion of the 2 GHz MSS band to IoT applications on a shared basis, citing shared use models implemented in Australia and under consideration in the EU as relevant international precedents.

On the 902–928 MHz band, Plan-S and the LoRa Alliance both proposed that URCA consider enabling satellite IoT services in this band, currently not allocated for MSS or satellite services in the Bahamian National Spectrum Plan, by adapting the ECC Decision (25)02 framework. Plan-S provided a detailed technical analysis including benchmarking of ECC Decision (25)02 PFD limits against FCC and Ofcom equivalents, demonstrating the technical applicability of the European framework to the 902–928 MHz band.

E-Space advocated for a flexible, band-agnostic approach allowing different MSS spectrum ranges to be used according to application needs, supported by ITU Radio Regulations Footnote 5.254 which permits secondary satellite service allocations in certain bands subject to non-interference conditions, and proposed that a first-come, first-served principle be applied for unutilised or underutilised spectrum.

2.5.2 URCA's Analysis

URCA notes the broad stakeholder consensus that satellite-based IoT services have significant potential to enhance connectivity, resilience, and service delivery throughout The Bahamas, particularly in remote, maritime, and underserved areas. URCA agrees that satellite-based IoT technologies may facilitate a wide range of public-interest, commercial, and resilience-oriented applications, including maritime operations, environmental and climate monitoring, disaster preparedness and recovery, utilities and infrastructure management, logistics and asset tracking, and the monitoring of critical national infrastructure.

URCA further agrees with stakeholder views that satellite-based IoT services should be regarded as complementary to, rather than substitutes for, terrestrial electronic communications networks and infrastructure. In URCA’s view, the development of satellite-based IoT capabilities may assist in extending coverage, supporting service continuity, and enhancing network resilience in circumstances where terrestrial connectivity may be limited, disrupted, or economically challenging to deploy.

URCA notes Starlink’s characterisation of satellite-based IoT services as a subsidiary capability within a broader D2D and broadband connectivity ecosystem. While URCA acknowledges that direct-to-handset broadband connectivity may represent a significant commercial and technological evolution in satellite communications, URCA does not consider that such characterisation diminishes the independent regulatory and policy significance of satellite-based IoT services as a distinct category of electronic communications service warranting an appropriately tailored regulatory framework.

Regulatory Approach and Scope

URCA considers that a proportionate, technology-neutral, and flexible regulatory framework is appropriate for satellite-based IoT services. The proposed use of existing licensing categories, including class-based authorisation mechanisms, promotes regulatory efficiency, legal certainty, and administrative proportionality while reducing unnecessary barriers to innovation and market entry. URCA recognises that satellite-based IoT services may be implemented through a variety of technical architectures and deployment models, including traditional MSS-based IoT systems, 3GPP NTN NB-IoT implementations, low-power satellite IoT platforms, LoRaWAN-over-satellite solutions, and other emerging satellite-enabled IoT technologies. URCA does not consider it appropriate for the regulatory framework to favour any particular technical architecture or implementation model. Rather, the framework is intended to remain technology-neutral and sufficiently flexible to accommodate evolving international standards, future technological developments, and new satellite IoT use cases as they emerge.

URCA further recognises that the technical, spectrum-management, and regulatory frameworks applicable to satellite-based IoT services continue to evolve internationally, including through ongoing developments within the ITU, 3GPP, regional regulatory organisations, and future World Radiocommunication Conferences. Accordingly, the framework is intended to provide sufficient flexibility to accommodate future developments and emerging international regulatory approaches without requiring fundamental revision of the underlying licensing structure.

URCA notes the CBL Group's concern regarding the inclusion of "broadband" within the IoT framework scope. For the avoidance of doubt, any licence and/or authorisation granted under this framework shall be limited to low-data-rate satellite-based communications services associated with tracking, telemetry, monitoring, and sensor-network applications, and shall not authorise the provision of broadband satellite services addressed elsewhere in this SoR unless separately authorised by URCA.

URCA notes Sateliot's submission on the importance of distinguishing wholesale satellite operator obligations from consumer-facing responsibilities. This principle is consistent with URCA's approach across the satellite framework and will be reflected in the applicable licence conditions. URCA has considered BTC’s concerns regarding practical enforceability and regulatory symmetry and intends to develop appropriate compliance and oversight mechanisms applicable to operators whose infrastructure is located outside The Bahamas. Such measures may include requirements for local representation, designated regulatory points of contact, or other accountability mechanisms where services are offered to consumers within The Bahamas. URCA notes Lucayan Technology Solutions (Bahamas)'s proposals for clarification on spectrum efficiency standards, data governance obligations, and partnership notification requirements, and will address these in the technical annexes and licence condition guidance accompanying the final licences.

ECC Decision (25)02 and the 902–928 MHz Band

The submissions from Plan-S and the LoRa Alliance regarding ECC Decision (25)02 and the potential use of the 902–928 MHz band for satellite-based IoT services raise broader spectrum allocation and policy considerations extending beyond the scope of the present consultation.

URCA notes that the 902–928 MHz band is not currently allocated to MSS or other satellite-service categories under The Bahamas’ National Frequency Allocation Table contained within the NSP 2026–2029.

Accordingly, the introduction of satellite-based IoT services within this band would require a separate spectrum management and allocation review process and could not appropriately be implemented solely through the present regulatory framework.

URCA further notes Plan-S' technically detailed submissions regarding ECC Decision (25)02, including comparative analysis indicating that the power flux-density limits adopted under that Decision are comparatively conservative relative to certain FCC and Ofcom approaches, as well as the broader adoption of the Decision across European Conference of Postal and Telecommunications Administrations (CEPT) administrations.

While URCA considers that these submissions merit further technical and regulatory assessment, any consideration of satellite-based IoT operations within the 902–928 MHz band should occur through a separate and dedicated review process, taking into account domestic spectrum-allocation considerations, incumbent services, international developments, and relevant outcomes of future ITU World Radiocommunication Conferences, including WRC-27.

With respect to LoRaWAN-over-satellite services, URCA considers that the existing COLRR framework is capable of accommodating such services, subject to the application of appropriate technical and operational conditions, including power flux-density ("PFD") limits, duty-cycle restrictions, and interference-mitigation safeguards specified in the applicable spectrum licence. Accordingly, URCA does not consider it necessary at this stage to establish a separate dedicated licence category for such services.

Spectrum Band Designations

URCA notes the broad stakeholder support for the use of MSS L- and S-band spectrum as a primary foundation for the provision of satellite-based IoT services. URCA further notes the specific 3GPP Band n256 designation (1980–2010 MHz uplink and 2170–2200 MHz downlink) identified by Sateliot and Plan-S for NTN NB-IoT, which provides a technical reference point for the development of initial spectrum-designation and operating conditions for satellite-based IoT services.

URCA also notes the emerging international trend toward the use of the 2 GHz MSS band for satellite-based IoT applications, including developments within Australia, the European Union, and the United Kingdom, and has taken such developments into consideration in finalizing the applicable spectrum-designations in this regard.

URCA further notes E-Space's technology-neutral and band-agnostic approach, as well as its references to ITU Radio Regulations Footnote 5.254. While URCA recognises the potential value of maintaining flexibility across MSS bands for future satellite IoT deployments, URCA considers that the initial implementation of the framework should be based on clearly identifiable and internationally recognised band references. In URCA's view, this approach will assist in promoting regulatory clarity, facilitating technical coordination, and supporting the orderly and efficient management of spectrum resources.

Interference and Coordination Challenges

URCA notes the broad stakeholder view that interference-management and coordination challenges associated with MSS-based satellite IoT services are capable of being addressed within existing international and domestic regulatory frameworks, subject to the application of appropriate technical and operational conditions.

URCA further notes Sateliot's submission that an overly burdensome regulatory approach may undermine the commercial viability and deployment of narrowband satellite IoT services and agrees that proportionality in the design and application of licence and technical conditions will be an important consideration in the implementation of the framework. URCA also notes CBL Group's decision to reserve its position pending the outcomes of WRC-27 and will continue to monitor relevant ITU Study Group activities and international developments, including the outcomes of WRC-27, in assessing whether future amendments to the framework may be necessary.

URCA considers that the framework is consistent with the policy objectives set out in section 4 of the Comms Act, 2009, including the promotion of innovation, the facilitation of electronic communications services throughout The Bahamas, the efficient use of spectrum resources, and the development of resilient communications infrastructure. URCA further considers that the framework is consistent with the regulatory principles set out in section 5 of the Comms Act, including proportionality, transparency, objectivity, and technological neutrality, as well as the spectrum-management objectives under section 32 of the Comms Act.

2.5.3 URCA's Decision

Adoption of Satellite-Based IoT Framework

URCA has decided to adopt a proportionate, technology-neutral, and flexible regulatory framework for satellite-based IoT services in The Bahamas. The framework is intended to facilitate the deployment and operation of satellite-based IoT services as a complementary component of the electronic communications ecosystem, particularly in remote, maritime, underserved, and disaster-prone areas.

Under this framework, satellite-based IoT services will initially be introduced through controlled testing, pilot, and trial activities prior to broader commercial deployment and authorisation. URCA intends to facilitate such testing and trial activities through a structured regulatory sandbox or alternative trial and testing framework. In this regard, URCA has identified Innovation Reef, its proposed Regulatory Sandbox initiative referenced in URCA's 2026 Annual Plan, as a potential mechanism for facilitating the phased introduction and assessment of emerging satellite-based IoT technologies and use cases.

The implementation of Innovation Reef and any associated sandbox or trial arrangements shall remain subject to the broader regulatory considerations and processes discussed in the D2D framework section of this SoR.

Scope of Framework

URCA confirms that the satellite-based IoT framework applies to low-data-rate services for tracking, telemetry, sensor networks, monitoring applications, and analogous narrowband IoT use cases. Broadband satellite services fall outside the scope of this framework and are addressed separately under the FSS and D2D framework components of this SoR.

For the avoidance of doubt, licenses and/or authorisations granted under this framework shall be limited to satellite-based IoT services within the scope described above. Services involving broadband satellite connectivity, including broadband D2D or FSS-type services, shall remain subject to the separate regulatory and licensing frameworks applicable to those services unless otherwise authorised by URCA.

URCA further confirms that any designated testing, pilot, or trial authorisations issued under the framework shall remain subject to the scope limitations, operational restrictions, and applicable technical conditions governing satellite-based IoT services.

Licensing Approach

URCA confirms that satellite-based IoT services may be authorised under existing licensing categories. In circumstances where the provision of satellite-based IoT services does not require access to public land, interconnection with public electronic communications networks, or other operational characteristics warranting individual licensing treatment, a COLRR will be the required operating licence, including in circumstances involving wholesale or retail satellite-based IoT service provision.

Where the nature, scale, or operational characteristics of the relevant service justify enhanced regulatory oversight, including circumstances involving interconnection arrangements, public-land access, or other individually licensed activities, an IOL will be required.

With respect to spectrum licencing, a CSLRR will generally be required for shared or non-exclusive spectrum use, while exclusive-use spectrum assignments will require an ISL.

Regulatory obligations and technical conditions will be applied proportionately having regard to the nature of the relevant service, operational model, deployment maturity, and spectrum-usage characteristics, while maintaining a clear distinction between obligations applicable to wholesale satellite operators and consumer-facing responsibilities applicable to retail service providers or licensed Bahamian operators interfacing directly with end-users.

URCA further confirms that LoRaWAN-over-satellite and analogous low-power device satellite ("LPD-S") services will also be accommodated within the existing operating licensing framework, subject to appropriate technical and operational conditions, including PFD limits, duty-cycle restrictions, and interference-mitigation safeguards set out in the relevant spectrum licence. Accordingly, URCA does not consider it necessary at this stage to establish a separate dedicated licence category for such services.

URCA further confirms that designated testing, pilot, and trial deployments for satellite-based IoT technologies may be authorised for limited periods, including periods of up to one year where appropriate, subject to applicable technical, operational, and reporting conditions.

MSS Spectrum Band Designations

URCA confirms that internationally harmonised MSS L-band and S-band spectrum allocations represent appropriate spectrum resources for the provision of satellite-based IoT services. URCA further confirms that 3GPP Band n256, covering 1980–2010 MHz uplink and 2170–2200 MHz downlink, represents an appropriate reference band for NTN NB-IoT and related satellite IoT applications, subject to applicable ITU coordination requirements, domestic spectrum-management requirements, and relevant technical and licensing conditions.

URCA will further assess the potential for shared use of portions of the 2 GHz MSS band for satellite-based IoT applications, having regard to the regulatory developments in Australia, the European Union, and the United Kingdom referenced in stakeholder submissions. The applicable technical and operational conditions, including any relevant band-designation parameters, will be set out in the technical annexes to the relevant spectrum licence.

902–928 MHz Band and ECC Decision (25)02

URCA has considered the proposals advanced by Plan-S and the LoRa Alliance concerning ECC Decision (25)02 and the potential operation of satellite IoT services within the 902–928 MHz band. URCA does not consider it appropriate within the present consultation to make a final regulatory determination regarding satellite IoT operations within that band, as such consideration would require a dedicated spectrum-management review and targeted technical consultation outside the scope of this consultation.

URCA notes that the 902–928 MHz band is not currently allocated to MSS or satellite-service use under the National Frequency Allocation Table contained within the NSP 2026–2029. Accordingly, any consideration of satellite IoT operations within that band would require further assessment of spectrum-allocation, coexistence, and interference-management considerations.

URCA may consider conducting such assessment as a separate workstream following the conclusion of this consultation process, taking into account ECC Decision (25)02, the technical analysis submitted by Plan-S and the LoRa Alliance, relevant international developments, and future ITU developments, including relevant WRC-27 outcomes.

Technical and Operational Requirements

Spectrum licenses will incorporate, at a minimum, the following technical and operational requirements for satellite-based IoT operations:

- Compliance with applicable PFD limits and emission standards for the relevant MSS frequency bands
- Adherence to ITU Radio Regulations coordination requirements, including Article 9.14, for operations in shared MSS spectrum
- Duty-cycle restrictions and narrowband waveform requirements for operations in shared or secondary spectrum
- Interference monitoring and incident reporting obligations
- Spectrum efficiency requirements consistent with ITU-R recommendations for narrowband MSS
- Data governance and lawful-access obligations consistent with applicable Bahamian legal requirements
- Local representation, designated regulatory points of contact, or other accountability requirements where satellite IoT services are provided directly to end-users within The Bahamas
- Operational and service-reporting obligations proportionate to the nature, scale, and deployment characteristics of the relevant service

Wholesale and Retail Responsibilities

URCA confirms that the framework maintains a distinction between obligations applicable to wholesale satellite-capacity providers and obligations applicable to entities providing regulated services to end-users within The Bahamas.

URCA further confirms that operators providing regulated services within The Bahamas will remain subject to applicable regulatory, consumer-protection, lawful-access, and accountability requirements notwithstanding that relevant infrastructure or network elements may be located outside The Bahamas. Where appropriate, URCA may require local representation, designated regulatory points of contact, or other accountability arrangements.

Partnership Arrangement Notifications

URCA will impose requirements applicable to wholesale partnership arrangements between satellite IoT operators and licensed Bahamian MNOs or other service providers in order to maintain appropriate regulatory visibility over commercial and operational arrangements relating to satellite IoT service provision within The Bahamas.

Such notification requirements may include the provision of information relating to the identity of the parties, the nature of the relevant services and commercial arrangements, the applicable deployment model, spectrum utilisation, and any exclusivity or other material operational arrangements relevant to URCA's regulatory oversight functions. Where necessary for regulatory assessment purposes, URCA may also require the provision of relevant agreements or extracts thereof, subject to applicable confidentiality protections.

These notification requirements will also support URCA's ability to monitor potential competition, exclusivity, and market-concentration concerns arising within the developing satellite IoT ecosystem.

Ongoing Review

URCA will continue to monitor international NTN developments, ITU-R studies, WRC-27 and subsequent WRC outcomes, evolving MSS and satellite IoT standards, and emerging coexistence frameworks, and will update the regulatory framework where appropriate in light of future developments.

2.6 Responses to Question 5: Orbital Sustainability, Spectrum Stewardship, and Space-Debris Mitigation

Question 5:

a. *Do you agree with URCA's position on issues relating to orbital and spectrum-resource and space-debris mitigation?*
If not, please provide reasons and supporting evidence.

b. *Do you agree with URCA's proposal to require satellite operators seeking authorisation in The Bahamas to attest to compliance with internationally recognised sustainability and debris-mitigation standards (e.g., ITU, UNOOSA, or the licensing administration of the operator's home jurisdiction)?*
If not, please propose alternative or supplementary approaches that URCA could adopt to encourage environmentally responsible satellite operations.

c. *Do you agree with URCA's proposal that satellite operators seeking to provide*

electronic communications services in The Bahamas should be required to comply with all applicable Bahamian laws, regulations, and policies relating to environmental protection and the management of space debris, and to cooperate with relevant national authorities, including the Department of Environmental Planning and Protection (DEPP) and the Civil Aviation Authority of The Bahamas (CAAB)?
If not, please explain why.

2.6.1 Summary of Stakeholder Views

Question 5 comprised three sub-parts addressing: (a) URCA's position on issues relating to orbital and spectrum-resource management and space-debris mitigation; (b) URCA's proposal to require satellite operators seeking authorisation in The Bahamas to attest to compliance with internationally recognised sustainability and debris-mitigation standards, including those of the ITU, UNOOSA, or the operator's home-jurisdiction licensing administration; and (c) URCA's proposal that satellite operators providing electronic communications services in The Bahamas be required to comply with all applicable Bahamian laws and regulations relating to environmental protection and space debris management, and to cooperate with relevant national authorities, including the Department of Environmental Planning and Protection (DEPP) and the Civil Aviation Authority of The Bahamas (CAAB).

Question 5(a) — Orbital and Spectrum Resource Management and Space Debris Mitigation
Respondents broadly agreed with URCA's position on the importance of orbital and spectrum resource management and space debris mitigation. There was general acceptance that satellite operators should be expected to observe internationally recognised sustainability standards, with several respondents expressing support for regulatory approaches grounded in ITU and UNOOSA guidelines. No respondent disputed URCA's right to impose environmental and sustainability conditions on satellite operators as part of the licensing process. Rather, submissions were directed at how such conditions should be designed rather than whether they should apply.

Question 5(b) — Attestation to International Sustainability and Debris-Mitigation Standards

Respondents generally supported the proposed attestation mechanism but emphasised the importance of URCA recognising certifications and authorisations issued by home-jurisdiction licensing authorities, in particular the FCC, rather than also requiring operators to undergo independent technical review in The Bahamas. Respondents submitted that satellite systems are already subject to comprehensive debris-mitigation and sustainability obligations in their home jurisdictions, and that URCA's authorisation framework should build upon, rather than duplicate, those existing regulatory requirements.

GSOA and Eutelsat further submitted that service-authorisation requirements should remain appropriately scoped to the provision of electronic communications services within The Bahamas and should not extend to matters already regulated at the space-segment level by the operator's home administration.

Sateliot submitted that low-power, narrowband IoT satellite systems present a materially different

operational and environmental risk profile from large GEO or broadband LEO constellations and recommended that URCA apply sustainability and debris-mitigation obligations proportionately having regard to the characteristics of the relevant satellite service and deployment model.

Question 5(c) — Compliance with Bahamian Law and Cooperation with DEPP and CAAB

Respondents raised no objection to URCA's proposal that satellite operators be required to comply with applicable Bahamian laws and to cooperate with DEPP and CAAB. Globalstar expressly supported this requirement. The submissions generally reflected the position that compliance with applicable national laws and cooperation with relevant national authorities constitute baseline obligations applicable to commercial operators providing services within The Bahamas.

2.6.2 URCA's Analysis

5(a) — Orbital and Spectrum Resource Management and Space Debris Mitigation

URCA's policy position on orbital and spectrum resource sustainability reflects its responsibilities under the Comms Act and its obligations as a national regulatory authority operating within the ITU framework. The long-term sustainability of orbital slots and radio frequency spectrum is a matter of international public interest, and URCA has a legitimate regulatory interest in ensuring that operators authorised in The Bahamas conduct their operations in a manner consistent with internationally accepted standards for debris mitigation and spectrum coordination.

The submissions received broadly affirm this position. No respondent disputed URCA's right to impose environmental and sustainability conditions on satellite operators as part of the service authorisation process. The points raised were directed at implementation design, specifically, how conditions should be structured to avoid duplication and ensure proportionality, rather than the underlying policy objective.

URCA considers that its regulatory interest is properly directed toward the provision of electronic communications services within The Bahamas and does not extend to the design, construction, or orbital management of space-segment infrastructure, matters which fall primarily within the regulatory competence of the operator's home administration and the applicable ITU framework. This scoping principle is consistent with the submissions of GSOA and Eutelsat and reflects the broader structure of the ITU coordination regime, under which national administrations are responsible for ensuring that satellite systems operating under their filing rights comply with the ITU Radio Regulations.

5(b) — Attestation to International Sustainability Standards

URCA considers the attestation model to be the appropriate mechanism for implementing sustainability and debris-mitigation requirements at the licensing phase. The attestation approach avoids the technical and resource constraints that would arise were URCA to undertake independent technical assessment of orbital parameters and debris-mitigation plans, assessments which require specialized expertise, access to detailed engineering information, and ongoing monitoring capabilities more appropriately exercised by the relevant home administration and international bodies such as UNOOSA and the Inter-Agency Space Debris Coordination Committee ("IADC").

URCA agrees with respondents, including GSOA and Eutelsat, that home-jurisdiction authorisations issued by technically competent national administrations, including FCC licences, Ofcom authorisations, and equivalent instruments, should generally be relied upon for purposes of satisfying the attestation requirement, provided that such authorisations reflect compliance with the ITU Radio Regulations and applicable debris-mitigation frameworks, including the IADC Space Debris Mitigation Guidelines and relevant ITU recommendations. URCA considers that this approach appropriately reflects the principle of reliance upon credible regulatory oversight and avoids imposing duplicative procedural burdens on operators already subject to substantive technical review in their home jurisdictions.

URCA further notes that the attestation framework does not constitute a waiver of substantive standards; rather, it reflects recognition that the underlying technical assessment has been conducted by the appropriate regulatory authority. URCA retains the right to revisit or withdraw reliance upon a home-jurisdiction authorisation where that authorisation is revoked, materially modified, or otherwise ceases to satisfy the standards relevant to authorisation within The Bahamas.

URCA has taken note of Sateliot's submission that the operational and environmental risk profile associated with narrowband IoT satellite systems differs materially from that of large broadband constellations and considers that the application of sustainability and debris-mitigation obligations should reflect those differing risk characteristics. URCA considers that a blanket application of maximum debris-mitigation obligations across all service types and orbital configurations would not be consistent with the principle of proportionate regulation. Accordingly, URCA will apply the attestation framework proportionately having regard to factors including constellation size, orbital altitude, manoeuvring capability, service type, and the applicable debris-mitigation regime within the relevant home jurisdiction.

5(c) — Compliance with Bahamian Law and Cooperation with DEPP and CAAB

URCA's proposal to require compliance with applicable Bahamian environmental laws and cooperation with DEPP and CAAB received no opposition. Globalstar expressly supported this requirement. URCA considers the inclusion of such obligations within the licensing framework to be appropriate as a matter of consistency with applicable national law and notes that these requirements do not impose satellite-specific obligations beyond those generally applicable to commercial operators conducting activities within The Bahamas.

URCA notes, however, that the practical scope of DEPP's and CAAB's respective mandates in relation to satellite and space-related activities is not yet formally defined. URCA therefore considers that effective implementation of these cooperation requirements will require appropriate inter-agency engagement to clarify the respective roles, coordination expectations, and notification procedures applicable to satellite operators authorised within The Bahamas.

2.6.3 URCA's Decision

Orbital and Spectrum Resource Sustainability

URCA confirms its position that satellite operators seeking service authorisation in The Bahamas will be required to conduct their operations in a manner consistent with internationally recognised standards relating to orbital and spectrum resource management and space debris mitigation. URCA further confirms that compliance with such standards will be incorporated, where appropriate, as a standard licence condition applicable to relevant operating licences and spectrum licences.

Attestation Mechanism

URCA confirms the adoption of an attestation-based compliance mechanism. Satellite operators will be required to attest, as a part of the licence application process and at each subsequent licence renewal, that they hold a valid authorisation issued by their home-jurisdiction licensing administration that reflects compliance with the ITU Radio Regulations, the IADC Space Debris Mitigation Guidelines, and any applicable UNOOSA or equivalent international debris-mitigation framework.

URCA further confirms that it will generally rely upon the technical assessments and authorisations issued by national licensing administrations, including, but not limited to, the FCC, Ofcom, ARCEP, ACMA, and equivalent regulatory bodies for purposes of satisfying the attestation requirement, provided that no material adverse change has occurred in the operator's compliance status or underlying authorisation. Where URCA has reasonable grounds to question the scope, status, applicability, or continuing validity of a relevant authorisation, URCA may require the provision of additional information or documentation for the purposes of the attestation framework.

Operators shall promptly notify URCA of any suspension, revocation, material modification, enforcement action, or other material regulatory proceeding relating to the relevant home-jurisdiction authorisation upon which the attestation framework relies. URCA may, where necessary, require the provision of additional information or documentation relating to such matters for the purposes of assessing their relevance to the attestation framework or the operator's continued compliance with applicable authorisation requirements.

URCA does not presently intend to undertake independent technical assessment of orbital parameters or debris-mitigation plans as part of the licence application process.

Compliance with Bahamian Law and Inter-Agency Cooperation

URCA confirms that all licensed satellite operators providing electronic communications services within The Bahamas will be required, as a standard licence condition, to comply with all applicable Bahamian laws and regulations relating to environmental protection and any applicable obligations associated with orbital sustainability and debris mitigation, and to cooperate with DEPP and CAAB in respect of matters falling within the mandates of those agencies that relate to the operator's activities in or affecting The

Bahamas.

URCA further confirms that it will initiate appropriate inter-agency engagement with DEPP and CAAB to clarify the practical scope of these cooperation obligations and to develop appropriate notification, coordination, and reporting protocols applicable to authorised satellite operators.

Proportionate Application

URCA confirms that the attestation and compliance framework set out above will be applied proportionately having regard to factors including the nature of the operator's service, orbital configuration, constellation size, manoeuvring capability, and the debris-mitigation standards applicable within the relevant home jurisdiction.

2.7 Responses to Question 6: Emergency Communications, Public Safety, and Disaster Resilience

Question 6:

a. *Do you have views on how satellite operators could best collaborate with Government agencies (e.g., Disaster Risk Management Authority (DRMA), the Royal Bahamas Police Force, or the Ministry of National Security) to support the dissemination of public-alert messages and maintain service continuity during emergencies?*

2.7.1 Summary of Stakeholder Views

Question 6 comprised a single sub-question addressing how satellite operators could best collaborate with Government agencies, including the Disaster Risk Management Authority (DRMA) (formerly the National Emergency Management Agency (NEMA)), the Royal Bahamas Police Force (RBPF), and the Ministry of National Security, to support public-alert dissemination, emergency communications, disaster-response activities, and the maintenance of service continuity during national emergencies and disaster events.

The submissions reflect broad recognition of the importance of satellite connectivity to national disaster resilience, while diverging on the appropriate mechanism for translating that recognition into regulatory obligation. Five thematic positions emerge from the submissions.

Satellite as a Complementary Resilience Layer

Respondents broadly agreed that satellite-based networks should operate as a complementary and resilient layer alongside terrestrial infrastructure during emergencies, rather than as a substitute for continued terrestrial network deployment and investment. This position was reflected in submissions from BTC, GSOA, Skylo, Sateliot, and Globalstar.

Across these submissions, respondents emphasised that the resilience value of satellite connectivity arises from its operational independence from terrestrial infrastructure, including the ability of satellite systems

to remain operational in circumstances where terrestrial facilities may be damaged, flooded, or otherwise disrupted during hurricane or other severe weather events.

Respondents further identified The Bahamas' archipelagic geography and exposure to hydro-meteorological hazards as key factors supporting the integration of satellite capabilities within the national emergency communications and disaster-resilience framework.

Proportionate and Role-Differentiated Obligations

Several respondents submitted that disaster-management and emergency-response obligations should be calibrated having regard to the operator's actual role within the communications value chain, rather than applied uniformly across all satellite licence categories.

Rivada submitted that operational coordination and emergency-response responsibilities are more appropriately directed toward satellite communications operators maintaining direct service relationships with end-users, rather than global space-segment providers with no local infrastructure or operational personnel within The Bahamas. Eutelsat raised similar concerns from a wholesale-capacity perspective, submitting that requiring wholesale satellite-capacity providers to attest compliance in relation to systems over which they do not exercise direct operational control could create a misalignment between regulatory responsibility and operational capability and may result in unintended barriers to market participation.

Amazon Leo similarly cautioned against the direct extension of baseline terrestrial emergency-response obligations to satellite operators without appropriate recognition of the differing operational characteristics of satellite networks. BTC supported a proportionate and non-prescriptive approach, recommending that emergency satellite-use arrangements be appropriately scoped, time-limited, and coordinated through URCA in order to avoid imposing disproportionate long-term regulatory burdens on the sector.

Concrete Operational Readiness Measures

Several respondents provided specific operational proposals relating to disaster preparedness, emergency response, and resilience coordination.

Lucayan Technology Solutions (Bahamas) recommended that licensees designated as Critical Electronic Communications Infrastructure ("CECI") providers be required to maintain pre-arranged deployment agreements for rapid activation of satellite terminals, including the pre-positioning of Category 5-hardened equipment across multiple islands in advance of anticipated hurricane landfall. Lucayan Technology Solutions (Bahamas) further proposed the adoption of technical interoperability requirements addressing integration of voice, data, and video communications with the DRMA Emergency Operations Centre, supported by periodic technical audits and coordinated emergency-response exercises.

Starlink recommended the establishment of foundational regulatory and operational arrangements in advance of emergency situations, including pre-arranged interconnection arrangements with local mobile network operators, the availability of an appropriate PLMN (Public Land Mobile Network) code to facilitate device connectivity, identification of dedicated emergency-response spectrum resources, expedited customs procedures for emergency communications equipment, and temporary regulatory waivers applicable during declared emergency periods.

Plan-S proposed the use of low-power satellite IoT sensors for infrastructure monitoring, damage assessment, and recovery coordination, including the use of store-and-forward communication mechanisms to facilitate data delivery during periods of temporary network disruption.

E-Space submitted that operators maintaining a permanent commercial presence within The Bahamas should be subject to an appropriate public-interest or social-responsibility obligation to support emergency communications during national crises and further proposed that URCA consider the development of an appropriate compensation or cost-recovery mechanism applicable to operators providing such emergency support services.

Direct Integration with National Alert Systems

Skylo, GSOA, E-Space, and Plan-S each proposed mechanisms for direct technical integration between satellite operators and national emergency-management systems. Skylo specifically proposed integration between NTN providers and government alert systems, including DRMA, to facilitate real-time, geographically targeted public-alert notifications, noting that D2D technologies operating within MSS spectrum are capable of disseminating emergency alerts, including meteorological warnings, directly to end-user devices in circumstances where terrestrial infrastructure is unavailable or disrupted.

The LoRa Alliance highlighted the potential role of battery-operated, low-power IoT sensors supported by satellite backhaul in providing critical situational-awareness data during emergency conditions, including circumstances in which terrestrial networks may be congested, degraded, or damaged. The Alliance further submitted that such systems may support early-warning capabilities, infrastructure monitoring, and emergency resource-tracking functions.

GSOA recommended that satellite connectivity capabilities be expressly incorporated into national emergency-communications and disaster-resilience planning frameworks, including for purposes of public-alert dissemination, continuity of communications for first responders, and restoration of connectivity supporting critical government functions.

Deference to the 2026 Disaster Management Regulations Review

The CBL Group reserved its detailed views on satellite-operator collaboration with DRMA and other national authorities, indicating that it intends to engage substantively within the context of URCA's proposed 2026 review of the Disaster Management Regulations. Globalstar similarly indicated its intention to participate in that process. Several other respondents, including Sateliot, Eutelsat, Amazon Leo, and AST SpaceMobile, framed aspects of their submissions as proposals more appropriately developed through the forthcoming disaster-management review process rather than as matters requiring final determination within the present satellite licensing framework.

2.7.2 URCA's Analysis

Baseline Obligation for Disaster Management Cooperation

URCA confirms that a baseline obligation requiring satellite licensees to cooperate with relevant national emergency-management authorities and to support, where technically and operationally appropriate, service continuity, emergency communications, and public-alert dissemination during declared national emergencies will be mandated.

URCA considers that the inclusion of such baseline obligations is appropriate as a matter of national resilience and disaster-preparedness policy and notes that these obligations are intended to operate alongside, and not in place of, the more detailed operational and technical requirements to be developed through the proposed 2026 review of the Disaster Management Regulations. URCA notes that it has already commenced stakeholder engagement and pre-consultation activities as part of this review and expects to complete the review process before the end of 2026.

URCA further notes that the majority of respondents did not oppose the principle of disaster-management cooperation as part of the satellite licensing framework. The principal concerns raised by respondents related primarily to questions of proportionality, operational scope, and implementation approach, rather than opposition to the underlying policy objective itself.

Role Differentiation and Proportionality

URCA considers that disaster-management obligations should be calibrated having regard to the operator's actual role within the communications value chain. URCA recognises that a wholesale satellite-capacity provider supplying connectivity to a licensed Bahamian operator occupies a materially different operational position from an operator providing electronic communications services directly to end-users or institutions within The Bahamas. URCA considers that the imposition of identical operational obligations across these categories, irrespective of their respective operational capabilities and degree of control over end-user service delivery, would not be consistent with the principle of proportionate regulation and could create unintended barriers to the provision of satellite-based connectivity services.

Accordingly, URCA considers that disaster-management cooperation obligations should be applied proportionately having regard to the operator's role, operational capabilities, and degree of involvement in the provision of services within The Bahamas. Operators providing electronic communications services directly to end-users or institutions within The Bahamas may be subject to enhanced operational and coordination obligations, while operators providing wholesale satellite-capacity or connectivity services will generally be subject to baseline cooperation and coordination obligations commensurate with their operational role.

Operational Readiness and Pre-Crisis Planning

URCA considers that the operational-readiness proposals advanced by Lucayan Technology Solutions (Bahamas), Starlink, and Plan-S represent substantive contributions to the development of a broader national resilience and disaster-management framework. URCA further considers that proposals relating to pre-positioned emergency communications equipment, interoperability with the DRMA Emergency Operations Centre, priority communications and QoS arrangements, network-monitoring capabilities, and expedited customs and deployment procedures are operationally credible and generally consistent with evolving international approaches to mission-critical communications resilience in disaster-prone jurisdictions.

URCA notes, however, that the detailed specification and implementation of such measures, including technical interoperability requirements, network-identification and connectivity arrangements, testing and exercise regimes, import of equipment, equipment-hardening standards, and emergency deployment protocols, will require further engagement with DRMA, the Ministry of National Security, the Customs Department, CAAB, and other relevant national stakeholders.

URCA therefore considers that these matters are more appropriately developed through the upcoming public consultation on the Disaster Management Regulations rather than through this consultation process and framework. This framework will establish the baseline enabling and cooperation obligations applicable to satellite operators, while the more detailed operational and technical implementation measures will be developed through the upcoming disaster-management review consultation process.

Direct Integration with National Alert Warning Systems

URCA considers Skylo's proposal for direct technical integration between NTN providers and national alert warning systems, together with the LoRa Alliance's proposal relating to satellite-enabled IoT sensor networks supporting early-warning capabilities, to represent important contributions to the development of national emergency-preparedness and resilience frameworks.

URCA notes that the ability of satellite-based D2D and IoT networks to facilitate geographically targeted public-alert dissemination directly to end-user devices, and to maintain situational-awareness and monitoring data flows during periods in which terrestrial infrastructure may be degraded or unavailable, is directly relevant to The Bahamas' disaster-management and national resilience objectives.

Accordingly, URCA considers it necessary to initiate appropriate engagement with DRMA, the RBPF and other relevant stakeholders to assess the technical feasibility, interoperability considerations, operational governance requirements, and broader implementation implications associated with such integration as part of the upcoming consultation on the review of the Disaster Management Regulations.

E-Space's Social Obligation and Compensatory Framework Proposal

URCA notes E-Space's proposal that operators maintaining a commercial presence within The Bahamas be subject to an appropriate public-interest or social obligation to support emergency communications during declared national emergencies, together with the proposal that URCA develop a compensatory or cost-recovery methodology applicable to the provision of such services.

URCA considers these proposals to represent substantive contributions to an emerging policy area not presently addressed within the existing regulatory framework. URCA further considers that the feasibility, scope, and design of any compensatory or cost-recovery framework applicable to emergency satellite communications services would require careful consideration having regard to national fiscal and disaster-management policies, existing universal service and public-interest obligations under the Comms Act, and the operational and commercial characteristics of the relevant satellite service categories.

Accordingly, URCA considers that it would be appropriate that these proposals may be referred for further consideration within the context of the upcoming review of the Disaster Management Regulations and/or the forthcoming consultation on the Universal Service Framework.

2.7.3 URCA's Decision

Baseline Disaster Management Cooperation Obligation

URCA confirms that all satellite operators providing electronic communications services in The Bahamas will be subject, as a standard licence condition, to a baseline obligation to cooperate with the DRMA, the RBPF, the Ministry of National Security, and other relevant national emergency-management authorities in support of public-alert dissemination, emergency communications, and the maintenance of service

continuity during declared national emergencies. This obligation may also include, where reasonable and appropriate, cooperation with emergency-preparedness activities, disaster-response planning, and relevant testing or coordination exercises. URCA further confirms that this obligation will be incorporated, where appropriate, into the relevant operating licences and/or spectrum licences issued.

Role-Differentiated Application

URCA confirms that disaster-management cooperation obligations will be applied proportionately having regard to the satellite operator's role within the communications value chain, the nature of the relevant service, and the operator's operational capabilities and degree of involvement in the provision of services within The Bahamas.

Operators providing electronic communications services directly to end-users or institutions within The Bahamas may be subject to enhanced operational and coordination obligations, the detailed scope of which will be developed through the proposed 2026 review of the Disaster Management Regulations. Operators providing wholesale satellite-capacity or connectivity services to licensed service providers will generally be subject to baseline cooperation and coordination obligations commensurate with their operational role and technical capabilities.

Deferred Operational Specification

URCA confirms that the detailed operational and technical requirements associated with disaster-management cooperation, including matters relating to reporting of incidents affecting service continuity, pre-positioning arrangements, interoperability standards, priority communications, testing and audit regimes, public-alert system integration, and emergency deployment procedures, will be considered and developed through the upcoming consultation on the review of the Disaster Management Regulations.

Critical Electronic Communications Infrastructure Designation

URCA confirms that the scope of the Critical Electronic Communications Infrastructure (CECI) designation will be reviewed and considered during the upcoming consultation on the Disaster Management Regulations to ensure that obligations are assigned to the categories of satellite operator most appropriate to providing direct, operational support to national emergency agencies.

2.8 Responses to Question 7: Lawful Access, Intercept and Data Protection

Question 7:

a. *Do you agree with URCA's revised approach to ensuring compliance with lawful-access, interception, evidentiary-disclosure, and data-protection obligations—focusing on notification, cooperation, and data-accessibility assurances? If not, please provide reasons and propose alternative compliance mechanisms.*

b. *Do you support URCA's proposal that all licensees should designate a responsible point of contact for lawful-access or interception requests under applicable Bahamian law (including the Interception of Communications Act, 2018, the Evidence Act, or*

other relevant statutes) and maintain internal procedures enabling the timely and secure execution of such requests or court orders?
If not, please indicate any operational or legal challenges that URCA should consider.

c. *Do you agree with URCA requiring licensees to demonstrate that communications data relevant to lawful access, evidentiary disclosure, or financial-crime investigations can be made securely and promptly accessible to Bahamian authorities, regardless of where the data are stored?*
If not, please explain why and suggest suitable safeguards.

d. *Do you agree that URCA should retain the discretion to require appointment of a local representative in cases where the operator's configuration or risk profile justifies enhanced oversight?*
If not, please recommend alternative approaches.

2.8.1 Summary of Stakeholder Views

Question 7 comprised four sub-parts addressing: (a) URCA's revised compliance approach focusing on notification, cooperation, and data-accessibility assurances as the mechanism for ensuring adherence to lawful-access, interception, evidentiary-disclosure, and data-protection obligations; (b) the designation of a responsible point of contact ("PoC") for lawful-access and interception requests under applicable Bahamian law, including the Interception of Communications Act, 2018, and the Evidence Act; (c) the requirement for licensees to demonstrate that communications data can be made securely and promptly accessible to Bahamian authorities regardless of where that data is stored; and (d) URCA's discretion to require appointment of a local representative in cases where an operator's configuration or risk profile justifies enhanced oversight.

The submissions reflect broad recognition of the importance of establishing a workable lawful-access framework for satellite-based services, while differing on the allocation of compliance obligations across the satellite service chain and the circumstances in which physical local presence or enhanced local accountability measures may be justified.

Sub-question 7(a): Revised compliance approach

Respondents broadly agreed that URCA's revised cooperation-focused framework centred on notification obligations, designated PoC, and assurances of data accessibility represents a proportionate and operationally workable baseline for lawful-access compliance within the satellite sector. Several respondents, including Amazon Leo and GSOA, emphasised that this approach avoids duplicating compliance obligations already applicable in other jurisdictions and appropriately reflects the globally distributed architecture of satellite communications systems.

Rivada Space Networks acknowledged the revised framework but submitted that its application to global wholesale space-segment providers is inappropriate, on the basis that such providers generally have no direct relationship with end-users and therefore lack the operational capability to intercept individual communications. Rivada accordingly submitted that lawful-access obligations should be directed primarily toward retail satellite communications providers managing the end-user relationship.

Plan-S submitted that satellite IoT services should be excluded entirely from lawful-access obligations on the basis that operators of transparent-payload IoT satellite systems are unable to decode machine-generated data payloads and therefore cannot meaningfully execute interception requests directed toward content-level communications data.

Sub-question 7(b): Designated point of contact

The designation of a responsible PoC for lawful-access and interception requests was among the least contested aspects of Question 7, with respondents broadly supporting the proposal. The principal area of divergence concerned whether the PoC should be required to maintain a physical presence within The Bahamas. AST SpaceMobile and GSOA both submitted that the PoC requirement should not, as a baseline matter, entail a physical-presence obligation, arguing that a remotely accessible and reliably responsive contact is sufficient to satisfy the underlying regulatory objective. Amazon Leo similarly cautioned against requirements that would duplicate, rather than complement, existing internal compliance and escalation structures.

Lucayan Technology Solutions (Bahamas) advocated for a more structured compliance-assurance framework comprising three principal elements: (i) Annual Compliance Attestations confirming that a 24/7 PoC arrangement remains operational and that relevant internal execution procedures have been tested; (ii) a structured Incident Reporting obligation requiring notification to URCA in circumstances where lawful-access requests could not be fulfilled within applicable timeframes; and (iii) periodic Verification Audits enabling URCA to assess whether stated PoC arrangements and associated internal procedures are functioning as represented.

Sub-question 7(c): Data accessibility regardless of storage location

There was near-universal support for the principle that licensees should be capable of demonstrating secure and timely accessibility of communications data to authorised Bahamian authorities without any requirement that such data be physically stored within The Bahamas. Respondents including Amazon Leo, Purpose Partners, and Skylo Technologies supported this approach as an operationally appropriate and technically sound obligation within the satellite communications environment.

Respondents nevertheless proposed several refinements to the framework. Sateliot submitted that data-accessibility obligations should be limited to data over which the relevant wholesale licensee exercises actual possession or control and that obligations relating to end-user data held by downstream retail partners or mobile network operators should rest with those entities rather than with the space-segment provider.

Skylo Technologies represented that there is a related technical limitation that URCA should consider, noting that satellite systems employing transparent-payload architectures may be technically incapable of decrypting or accessing user-content data and that compliance obligations should therefore be calibrated having regard to these architectural constraints.

Starlink contended that where communications data is stored extraterritorially, Bahamian authorities should utilise applicable Mutual Legal Assistance Treaty ("MLAT") mechanisms as the primary lawful-access pathway, with direct operator-facilitated disclosure obligations applying principally to data stored or controlled domestically.

Sub-question 7(d): Discretionary local representative

This sub-question attracted the most divergent responses among stakeholders. BTC and the CBL Group both supported URCA retaining discretion to require the appointment of a local representative in circumstances involving elevated risk profiles or operational configurations warranting enhanced regulatory oversight. CBL Group specifically supported the retention of this discretion as an important safeguard from both a national-security and regulatory-accountability perspective.

A majority of satellite-operator respondents, however, expressed concerns regarding either the principle or the scope of the proposed discretion. GSOA advocated for the proposed discretionary local-representative provision to be removed entirely on the basis that the existing notification, designated PoC, and cooperation framework already provides sufficient accountability without imposing the operational and financial burdens associated with mandatory physical presence requirements.

Starlink expressed similar concerns, submitting that local representation requirements do not necessarily improve practical compliance outcomes and arguing that URCA should not require the appointment of a local representative in circumstances where the operator already maintains established compliance and legal support arrangements. Starlink further submitted that, where enhanced supervisory measures are considered necessary, operators should be permitted to appoint an appropriate representative of their choosing regardless of location and that any discretion should be guided by clear and predictable implementation criteria.

Rivada submitted that discretionary local-representation requirements should not apply to operators functioning solely as wholesale space-segment providers.

2.8.2 URCA's Analysis

URCA recognises that lawful-access and data-accessibility obligations engage important considerations relating to national security, operational feasibility, privacy, and proportionality, and has sought to develop a framework that appropriately balances those considerations within the satellite communications environment.

On the revised compliance framework generally

URCA is satisfied that a cooperation-focused approach to lawful-access compliance is legally adequate and operationally appropriate for satellite operators providing electronic communications services within The Bahamas. URCA considers that the framework is grounded in the Interception of Communications Act, 2018, the Evidence Act, and the broader data-protection principles applicable to electronic communications licensees.

URCA notes that nothing in those instruments requires physical data localization within The Bahamas as a precondition to compliance. Rather, the relevant legal framework requires that lawful requests be capable of being executed securely, effectively, and within a reasonable timeframe. URCA's revised approach centred on notification obligations, designated PoC arrangements, and demonstrated data accessibility is intended to operationalize those requirements in a manner consistent with the distributed architecture of satellite communications systems, while preserving appropriate flexibility for enhanced local accountability measures in circumstances where justified by the operator's configuration, risk profile, or operational footprint.

URCA notes the submissions of Rivada and Sateliot concerning the distinction between wholesale and retail functions within the satellite communications value chain. URCA recognises that the layered structure of satellite communications systems, in which space-segment providers, gateway operators, ground-station operators, and retail service providers may each perform distinct operational functions, means that the entity best positioned to respond to a lawful-access request will depend upon both the nature of the request and the architecture of the relevant service arrangement.

URCA nevertheless considers that the appropriate regulatory approach is not to exempt wholesale providers categorically from lawful-access obligations, but rather to ensure that compliance responsibilities within the service chain are appropriately allocated, clearly identified, and operationally enforceable. Accordingly, a space-segment-only provider lacking access to end-user data should not be required to produce data that it does not possess or control. However, URCA considers that such operators should remain subject to obligations requiring them to identify the relevant entity within the service chain that holds the applicable data and, where appropriate, to cooperate in facilitating lawful access to that entity.

URCA considers that a blanket exemption for wholesale providers would create material accountability gaps inconsistent with national security, lawful-access, and law-enforcement objectives applicable under the Bahamian legal framework.

URCA further does not accept Plan-S's submission that satellite IoT services should be categorically excluded from lawful-access obligations. URCA considers that machine-generated data payloads may, in appropriate circumstances, constitute communications data, traffic data, or other information relevant to lawful investigations. URCA further considers that the inability of an operator to decode content-level communications data does not extinguish obligations relating to metadata, signalling information, transmission records, or other categories of data within the operator's possession or control. URCA notes that such information may be relevant in a range of investigative contexts, including cybersecurity incidents, unlawful network activity, fraud investigations, and other matters involving the use or misuse of connected devices and electronic communications networks.

URCA recognises, however, that compliance expectations must remain technically achievable and proportionate having regard to the architecture, operational characteristics, and technical capabilities of the relevant system. Accordingly, the applicable licence conditions and any associated operational guidance will adopt a calibrated and technology-appropriate approach to lawful-access obligations, including distinctions based on the categories of communications data, metadata, signalling information, or other information reasonably accessible to the relevant operator.

On the PoC requirement

URCA has considered the submissions of AST SpaceMobile, Starlink, GSOA, Amazon Leo, and other respondents that the designated PoC requirement should not, as a baseline matter, entail a mandatory physical-presence requirement within The Bahamas. URCA considers that the underlying regulatory objective of the PoC framework, namely ensuring that URCA and relevant Bahamian law-enforcement authorities have access to a reliable, responsive, and accountable escalation mechanism can generally be satisfied through a remotely accessible contact arrangement, provided that the designated PoC is reachable on a 24-hour basis, is authorised to receive, execute, or immediately escalate lawful-access requests, and is supported by documented internal compliance procedures. URCA will clarify, whether in

applicable operational guidance or licence conditions, the practical requirements relating to PoC responsiveness, escalation timelines, and secure communication arrangements.

URCA nevertheless considers, having regard to the submissions of BTC and CBL Group, that it is appropriate to retain discretion to require the appointment of a local representative or locally based PoC arrangement in circumstances where an operator's configuration, risk profile, operational footprint, compliance history, or involvement in critical national infrastructure sectors justifies enhanced regulatory oversight or local accountability measures. URCA further considers that the exercise of such discretion should be guided by principles of transparency, proportionality, and regulatory predictability as submitted by Purpose Partners. Accordingly, URCA intends to provide further guidance on categories of circumstances that may ordinarily inform the exercise of this discretion.

URCA further considers Lucayan Technology's proposal relating to Annual Compliance Attestations to be proportionate and operationally constructive and may incorporate elements of that proposal into the compliance-assurance framework applicable to relevant licensees. URCA notes, however, that proposals relating to incident reporting and verification audits in the context of lawful-access execution and interception activities fall outside the scope of URCA's regulatory mandate and are more appropriately addressed through the applicable legal, judicial, national security and law-enforcement oversight frameworks.

On data accessibility and extraterritorial data

URCA affirms the data-accessibility obligation as a central pillar of the framework. The principle that communications data must be securely and promptly accessible to authorised Bahamian authorities, regardless of where such data is stored, is consistent with URCA's statutory responsibilities under section 4 of the Comms Act, including the objective to further interests of persons in The Bahamas by maintaining public safety and security within the electronic communications sector.

URCA further considers that the framework is consistent with the ECSP 2024–2027, including paragraphs 30 and 108 thereof, which recognise the importance of ensuring that the electronic communications sector operates within a regulatory framework that supports national safety, security, resilience, and the protection of life and property.

URCA acknowledges the technical-architecture submissions of Skylo Technologies and recognises that certain system architectures may present genuine operational limitations in relation to content-level access capabilities. Accordingly, licence conditions and any associated operational guidance will adopt a calibrated and technology-appropriate approach to lawful-access obligations having regard to the architecture, operational characteristics, and technical capabilities of the relevant system, including distinctions between obligations relating to content-level communications data and those applicable to traffic data, metadata, signalling information, or other information reasonably accessible to the relevant operator.

URCA has carefully considered Starlink's submission regarding the use of MLAT mechanisms. While URCA acknowledges that MLAT frameworks constitute a legitimate mechanism for international law-enforcement cooperation, URCA does not consider it appropriate for such mechanisms to operate as the exclusive lawful-access pathway in circumstances where electronic communications services are being actively provided within The Bahamas pursuant to an authorisation granted under Bahamian law.

URCA considers that a central objective of the framework is to ensure that the extraterritorial and globally distributed nature of satellite communications systems does not create practical accountability or enforcement gaps in relation to lawful-access obligations applicable within The Bahamas. Accordingly, operators providing services within The Bahamas are expected to maintain reasonable mechanisms enabling cooperation with authorised Bahamian authorities in accordance with applicable domestic law, notwithstanding that elements of the underlying network architecture, data-processing environment, or service infrastructure may be located outside the jurisdiction.

On the discretionary local representative

URCA considers it appropriate to retain discretion to require the appointment of a local representative in circumstances where an operator's configuration, risk profile, operational footprint, or compliance history justifies enhanced regulatory oversight or local accountability measures. URCA notes the concerns raised by GSOA, Starlink, Globalstar, and Purpose Partners regarding regulatory predictability and the potential operational burdens associated with physical-presence requirements.

URCA nevertheless considers that the retention of a residual discretion to require enhanced local accountability measures is consistent with a risk-based and proportionate approach, particularly in light of the extraterritorial nature of satellite communications systems and the importance of maintaining effective regulatory and lawful-access oversight mechanisms within The Bahamas.

Accordingly, URCA may publish operational guidance identifying categories of circumstances that may ordinarily inform the exercise of this discretion, including circumstances involving persistent deficiencies in PoC arrangements, patterns of material non-cooperation with lawful-access obligations, the provision of services supporting critical national infrastructure sectors, or the absence of alternative accountability mechanisms capable of providing equivalent regulatory assurance.

2.8.3 URCA's Decision

Scope of lawful-access obligations

URCA confirms its revised compliance approach requiring all satellite-based electronic communications service licensees to provide URCA with their relevant service architecture and operational configuration, to cooperate with authorised Bahamian authorities in relation to lawful-access and interception requests, and to provide documented assurances that communications data within their possession or control is securely and promptly accessible to authorised authorities in accordance with applicable law. URCA will clarify, whether in applicable guidance or licence conditions, the expected level of detail relating to "service architecture and operational configuration" disclosures, including how commercially sensitive or security-sensitive information will be treated.

These obligations will apply to all licensees regardless of their position within the service chain, subject to the scope-of-control clarification relating to data accessibility set out below. URCA further confirms that satellite IoT service providers are not categorically exempt from lawful-access obligations. Applicable

licence conditions and compliance expectations will, however, be calibrated having regard to the architecture, operational characteristics, and technical capabilities of the relevant system.

Designated point of contact and compliance assurance

URCA confirms the requirement for all licensees to designate a responsible PoC for lawful-access and interception requests. The designated PoC must: (i) be reachable on a 24-hour basis; (ii) be authorised to receive, execute, or immediately escalate lawful-access requests and court orders; and (iii) be supported by documented internal procedures enabling timely and secure execution of applicable requests.

URCA further confirms that, as a baseline matter, the designated PoC will not be required to be physically located within The Bahamas. However, URCA retains discretion to require a locally based PoC arrangement or local representative in circumstances where enhanced regulatory oversight or local accountability measures are justified having regard to the operator's configuration, risk profile, operational footprint, or compliance history.

URCA may publish operational guidance identifying categories of circumstances that may ordinarily inform the exercise of this discretion. URCA further confirms that such discretion will not be exercised as a matter of routine and will generally be reserved for circumstances presenting elevated oversight concerns that cannot be adequately addressed through the baseline PoC, notification, and cooperation mechanisms established under the framework.

All licensees will be required to submit annual Compliance Attestations confirming that PoC arrangements remain operational and supported by appropriate internal procedures.

Data accessibility and extraterritorial data

URCA confirms the data-accessibility obligation. All licensees must be able to demonstrate that communications data within their possession or control, including traffic data, metadata, signalling records, and content where technically accessible, can be made available securely and promptly to authorised Bahamian authorities, regardless of the jurisdiction in which such data is stored or processed. URCA will clarify, whether in applicable operational guidance or licence conditions, the practical meaning of "securely and promptly", particularly in the context of cross-border requests, differing system architectures, and encrypted or technically inaccessible data.

For wholesale space-segment providers that do not possess or control end-user data, the obligation will extend to maintaining sufficient information and internal arrangements to identify the entity within the relevant service chain that possesses or controls the applicable data for purposes of lawful-access cooperation. URCA may, where appropriate, provide further clarification through applicable licence conditions or other regulatory instruments regarding the practical implementation of this obligation.

URCA further confirms that applicable licence conditions and any associated operational guidance will adopt a calibrated and technology-appropriate approach to lawful-access obligations having regard to the architecture, operational characteristics, and technical capabilities of the relevant system, including

distinctions between content-level communications data and other categories of information reasonably accessible to the relevant operator.

2.9 Responses to Question 8: Baseline Licence Conditions and Implementation Framework

Question 8:

a. *Do you agree that the proposed baseline licence conditions outlined in Section 2.8.1 appropriately extend existing ECS obligations (e.g., consumer protection, lawful intercept, disaster management, and environmental responsibility) to satellite-based licensees?*
If not, please specify which conditions should be revised, clarified, or excluded.

b. *Do you consider that the summary table of permissible services and regulatory treatment (Section 2.8.2) accurately captures the range of satellite-based services expected to operate in The Bahamas and clearly maps them to the appropriate licence categories (Operating and Spectrum)?*
If not, please identify any omissions, duplications, or misclassifications.

c. *Do you agree that the proposed licensing and spectrum-assignment framework (covering FSS, ESIM, D2D, IoT/M2M, and emergency-communications services) provides clarity?*
If not, please recommend improvements or additional guidance URCA should include.

2.9.1 Summary of Stakeholder Views

Question 8 comprised three sub-parts addressing: (a) the completeness and appropriateness of the proposed baseline licence conditions applicable to satellite-based electronic communications services; (b) the proposed regulatory treatment and classification of permissible satellite service categories, including FSS, ESIM, D2D, IoT/M2M, and emergency-communications services; and (c) the overall coherence, consistency, and operational workability of the proposed licensing and spectrum-assignment framework.

A number of submissions responding to Question 8 restated or elaborated positions already advanced in response to earlier consultation questions, including on the IOL/COLRR licensing boundary, IoT/M2M classification, D2D service models, spectrum fees, emergency-communications services and lawful-access obligations. URCA's analysis and decisions on those matters are set out in the relevant earlier sections of this SoR and are not repeated here. The analysis in this section focuses on submissions that raise concerns specific to the drafting of baseline licence conditions, the accuracy and completeness of the service classification table set out in the Second Consultation Document, or the overall coherence and clarity of the regulatory framework for satellite-based electronic communications services.

Sub-question 8(a): Baseline licence conditions

Respondents were broadly supportive of URCA's proposal to apply baseline ECS obligations to satellite-based licensees, while emphasising the importance of proportionality, technological neutrality, and drafting precision in the application of those obligations.

Amazon Leo supported the general direction of the framework but sought additional clarification regarding the scope and application of universal service obligations to satellite operators. Amazon Leo reiterated its broader position that regulatory obligations should remain technology-neutral and calibrated having regard to the operational characteristics of satellite communications systems rather than imported wholesale from terrestrial regulatory frameworks.

Skylo submitted that satellite-based electronic communications services should be exempt from Universal Service Fund contribution requirements, arguing that NTN services inherently advance universal-service objectives and that imposing such obligations could create unnecessary barriers to entry and investment.

Skylo expressed support for the overall classification and licensing approach while recommending that fee structures applicable to MSS operations be calibrated to reflect the technical and commercial characteristics of those services. URCA notes that these fee-related submissions are addressed elsewhere in this Statement of Results and are not revisited substantively under Question 8.

Several respondents, including Starlink and Skylo Technologies, also reiterated concerns relating to the proportionality of lawful-access and interception obligations. URCA notes that those submissions have been substantively addressed within the analysis and decisions adopted under Question 7 and are referenced here only insofar as they relate specifically to the drafting and operational application of the proposed baseline licence conditions.

Sub-question 8(b): Summary of Proposed Permissible Satellite-Based Electronic Communications Services and Proposed Regulatory Treatment

Several respondents identified specific gaps or misclassifications in the Summary of Proposed Permissible Satellite-Based Electronic Communications Services and Proposed Regulatory Treatment set out in section 2.8.2 of the Second Consultation Document. GSOA and Starlink both submitted that blanket licensing for ESIMs should be explicitly reflected in the table, and that foreign-registered ESIMs operating on a non-interference basis should be mapped to a clearly identified exemption pathway. GSOA grounded this submission in ITU Resolution 123.

Rivada Space Networks raised the treatment of visiting ESIMs as a distinct regulatory category, submitting that the table does not adequately distinguish between ESIMs operated by resident licensees and those brought into Bahamian jurisdiction on a temporary or transiting basis, and called for alignment with regional and international classification standards. Rivada also reiterated its submission that wholesale space-segment providers should be exempt from operating licence requirements, a position addressed under Question 1 of this Statement of Results.

Sateliot raised a concern specific to the table's treatment of spectrum assignment, submitting that the framework should explicitly preserve MSS bands for IoT and D2D services and should not pre-empt the outcomes of WRC-27 by allocating or designating IMT spectrum in a manner that forecloses future MSS use. This submission overlaps substantially with positions addressed under Questions 3 and 4 above.

Starlink submitted that the spectrum bands identified for FSS satellite-backhaul applications in the table should be expanded to include E-band and W-band frequencies in addition to the C-, Ku-, Ka-, and Q/V-bands.

Sub-question 8(c): Overall framework clarity and Operational Coherence

Respondents generally expressed support for the overall clarity and coherence of the proposed licensing and spectrum-assignment framework. Globalstar agreed that the framework provides an appropriate degree of regulatory clarity, while Skylo Technologies, Sateliot, and GSOA each supported the framework's alignment with evolving international approaches to satellite communications regulation and its accommodation of emerging service categories including IoT/M2M and D2D services.

The principal requests for additional clarification related to: (i) priority-access and emergency-communications protocols; (ii) the regulatory treatment of visiting and foreign ESIM operations; and (iii) the interaction between operating-licence conditions and spectrum-authorisation processes.

Starlink recommended that URCA provide additional guidance regarding priority-access arrangements applicable during declared national emergencies, including pre-arranged interconnection mechanisms with local mobile network operators, expedited customs and deployment procedures for emergency equipment, and the potential temporary relaxation of roaming or in-motion operational restrictions where necessary to facilitate rapid emergency deployment and restoration activities.

URCA notes that these submissions overlap substantially with positions advanced under Question 6 concerning disaster-management cooperation and national resilience obligations. Accordingly, those broader policy and operational matters are addressed principally within the analysis and decisions adopted under Question 6.

2.9.2 URCA's Analysis

Baseline licence conditions and proportionality

URCA is satisfied that the baseline licence conditions in Section 2.8.1 of the Second Consultation Document[7] provide an appropriate and legally grounded extension of existing ECS obligations to satellite-based licensees. The conditions are anchored in the Comms Act and are consistent with the obligations applicable to other electronic communications licensees operating in The Bahamas. URCA accepts, however, that the application of certain conditions, in particular those relating to universal service contributions and lawful interception requires drafting precision to ensure that obligations are calibrated

[7] https://urcabahamas.bs/wp-content/uploads/2025/11/URCA-ECS-072025-Second-Round-Consultation-on-Satelite-Framework.pdf

to the operational reality of satellite systems rather than mechanically transposed from terrestrial frameworks.

On universal service obligations specifically, URCA notes Amazon Leo's submission and acknowledges that the current drafting of the relevant baseline licence obligation may inadvertently imply a technology-specific approach to universal service obligations through its express reference to satellite-based services.

URCA agrees that clarification is appropriate and, consistent with the technology-neutral approach underpinning both this framework and the broader universal service regime, has revised the proposed licence condition as follows:

> *"Universal Service: All licensees will contribute to the Universal Service Fund (USF) in accordance with the Communications Act and applicable regulations. URCA may, where appropriate, include licensees within universal service initiatives aimed at extending connectivity to underserved and remote areas of The Bahamas."*

URCA has also considered Skylo's submission that satellite-based electronic communications services should be exempt from Universal Service Fund contribution requirements on the basis that such services inherently advance universal-service objectives. While URCA recognises the potential contribution of satellite and NTN services to the achievement of universal-service goals, it does not consider that this justifies a categorical exemption from applicable Universal Service Fund obligations. URCA considers that the application of universal service obligations on a technology-neutral basis remains appropriate and consistent with the broader universal service framework established under the Comms Act.

URCA considers that the revised drafting more appropriately reflects the principle that universal service obligations should apply on a technology-neutral basis, while allowing the practical application of particular obligations to be considered in light of the characteristics of the relevant service. Further consideration of the operational application of universal service obligations will be undertaken as part of URCA's forthcoming consultation on the broader universal service framework.

URCA's position on the proportionality of lawful interception obligations is addressed under Question 7, and the relevant licence conditions will reflect the decisions set out therein.

Summary of Proposed Permissible Satellite-Based Electronic Communications Services and Proposed Regulatory Treatment

URCA considers that the Section 2.8.2 summary table requires refinement in certain respects in order to improve clarity, internal consistency, and alignment with the decisions adopted elsewhere in this SoR.

First, URCA agrees that the regulatory treatment applicable to ESIM operations should be reflected more explicitly within the table, including the treatment of foreign-registered ESIMs operating on a non-interference basis. URCA therefore confirms that the revised table will include clearer classification and cross-referencing relating to the applicable licensing pathway, operational conditions, and non-interference requirements associated with such operations. URCA considers that this clarification is

consistent with the decisions adopted under Question 1 and will reduce the potential for ambiguity arising from the current presentation of the framework.

Second, URCA notes Rivada's comments regarding the treatment of visiting ESIM operations within the Section 2.8.2 summary table. URCA considers that further clarification in the table is appropriate to avoid ambiguity regarding the application of the framework to ESIM-enabled services operating within The Bahamas. In this regard, URCA confirms, consistent with its position under Question 1, that the regulatory framework applies at the level of the provision of electronic communications services rather than individual terminals. Accordingly, providers offering ESIM-enabled services within The Bahamas remain subject to the applicable electronic communications regulatory and licensing framework established under the Comms Act. The revised table will be updated to better reflect this regulatory treatment and to improve clarity regarding the operation of foreign-registered or visiting ESIM-enabled devices on a non-interference basis where applicable.

With respect to Sateliot's submissions concerning MSS spectrum preservation and WRC-27, URCA notes that those matters are addressed substantively within the analysis and decisions adopted under Question 4. The revised framework and associated classification table will reflect URCA's positions and decisions without pre-empting future international outcomes or spectrum-allocation developments arising from the WRC-27 process.

URCA notes Starlink's submission that FSS satellite-backhaul applications may utilise E-band and W-band frequencies in addition to the C-, Ku-, Ka-, and Q/V-bands identified in the Consultation Document. Having reviewed the National Frequency Allocation Table in the NSP 2026–2029, URCA notes that certain E-band frequencies are allocated to the Fixed-Satellite Service, including 71–76 GHz (space-to-Earth) and 81–86 GHz (Earth-to-space). URCA has therefore revised the relevant references to acknowledge the potential use of E-band frequencies for satellite backhaul applications.

URCA further recognises that satellite technologies, frequency-utilisation patterns, and international spectrum allocations continue to evolve in light of technological developments, ITU studies, and future WRC outcomes. Accordingly, the frequency bands referenced in the table are intended to be illustrative rather than exhaustive and should not be interpreted as limiting future consideration of additional frequency bands for satellite-backhaul applications. Any such future consideration will be undertaken in accordance with the National Spectrum Plan, the National Frequency Allocation Table, and relevant international developments.

Overall framework clarity and Operational Coherence

URCA is satisfied that the framework, taken as a whole, provides sufficient clarity for the range of satellite-based services expected to operate in The Bahamas. The licensing and spectrum assignment architecture covering FSS, ESIM, D2D, IoT/M2M, and emergency communications has been designed to accommodate technological evolution without requiring substantive regulatory revision each time a new service variant emerges. These new service variants could then, where appropriate, be addressed through additional guidance, technical conditions, or implementation measures rather than requiring broader framework revisions.

2.9.3 URCA's Decisions

Baseline licence conditions

URCA confirms that the baseline licence conditions in Section 2.8.1 of the Second Consultation Document appropriately extend existing ECS obligations to satellite-based licensees. URCA will revise the universal service obligation condition to ensure that the drafting more appropriately reflects the technology-neutral nature of the universal service regime, while recognising that the practical application of particular obligations may vary depending on the nature of the service being provided as proposed above. All other Section 2.8.1 baseline licence conditions will be retained as proposed, subject to the drafting refinements arising from URCA's decisions under Questions 6 and 7 in respect of emergency management and lawful interception obligations respectively.

Summary of Proposed Permissible Satellite-Based Electronic Communications Services and Proposed Regulatory Treatment

URCA will revise the table in the Section 2.8.2 of the Second Consultation Document to: (i) explicitly include blanket licensing for ESIM operations; (ii) clarify within the ESIM classification entry the regulatory treatment applicable to foreign-authorised or visiting ESIM-enabled operations within The Bahamas, including that the framework applies at the level of the provision of electronic communications services rather than individual terminals; and (iii) ensure that the treatment of IoT/M2M, D2D, and MSS-based services in the table is consistent with the decisions taken under Questions 1, 3, and 4. The revised table will be published as part of the final regulatory instrument.

Overall framework clarity and emergency communications

URCA confirms that the licensing and spectrum-assignment framework provides the necessary clarity for the range of services expected to operate under it.

Consistent with URCA's decision above, the following revised table sets out the permissible satellite-based electronic communications services and their applicable regulatory treatment under the framework adopted in this Statement of Results.

Summary of Permissible Satellite-Based Electronic Communications Services and Proposed Regulatory Treatment

Table 2 below provides a non-exhaustive summary, for illustrative purposes, of the proposed application of URCA's existing licensing categories, both operating and spectrum, to satellite-based electronic communications services. It outlines the principal distinctions between licence types, the nature of authorised activities, and examples of the services or facilities covered under each category.

Note: All licensees must comply with applicable Bahamian legislation as amended from time to time, including the Interception of Communications Act, the Evidence Act, the Data Protection (Privacy of Information) Act and all laws and regulations relating to the prevention of money laundering, terrorist financing, and other financial crimes. Additionally, all licensees must comply with relevant international frameworks governing safe and sustainable space operations. Unless otherwise indicated, restrictions on the provision of mobile services and voice services apply where relevant. All licensees shall operate strictly within their assigned frequency bands and power limits as specified by URCA and in accordance with the National Spectrum Plan.

Table 2

Category	Service Type	Description	URCA Licence Type	Proposed Key Licence Conditions[8]	Indicative Spectrum Bands	Proposed Fee Approach
FSS	Fixed Broadband	Broadband Internet access via satellite user terminals.	COLRR + CSLRR	• Must comply with COLRR/CSLRR conditions. • Restriction on mobile service provision. • Must comply with QoS, consumer-protection, disaster-management, lawful-	Ka (27.5–30 GHz / 17.7–21.2 GHz); Ku (14–14.5 GHz / 10.7–12.7 GHz)	Annual URCA Fee – $3,000 (< $0.5m turnover) or 1.448[9]% (≥ $0.5m). Comms Licence Fee – 3% of Relevant Turnover Spectrum Fee – Base $40,000 + 3% of Relevant Turnover exceeding BSD $500,000. Tribunal Fees – TBD.

[8] These conditions should be read in conjunction with the published Standard Terms and Conditions applicable to each referenced licence type.

[9] Please note that the percentage rate of 1.448% applies for the year 2025 and is subject to annual review and adjustment by URCA pursuant to Section 92(2) of the Comms Act.

				intercept, and USF obligations.		
FSS	Satellite Backhaul	High-capacity links used to connect base stations, remote networks, or community sites to the core network via satellite (e.g., in Family Islands)	COLRR + CSLRR (shared) or COLRR + ISL (exclusive)	• Must comply with COLRR + CSLRR/ISL. • Restriction on mobile services.	C-, Ku-, Ka-, E- and Q/V-bands	Annual URCA Fee and Comms Licence Fee as above; Spectrum Fee per assignment type (shared or exclusive) as set out above; Tribunal Fees TBD.
FSS	VSAT	Data/private networks via VSAT systems.	CSLRR (shared) or ISL (exclusive)	• Must comply with CSLRR/ISL. • Restriction on mobile services.	Ka, Ku, C (5.85–6.725 GHz / 3.4–4.2 GHz)	Per-station: • Dish <3 m – $500 pa. • Dish ≥3 m – $4,500 pa.
FSS	ESIM	Mobile earth stations providing broadband connectivity on maritime, aeronautical, and land-based platforms.	CSLRR (network-level blanket)	• Authorisation is granted at the operator level on a blanket basis; no per-terminal licensing is required. • Restriction on mobile services.	Ka, Ku bands	Flat annual spectrum fee of BSD $3,000 per operator.
FSS	Visiting ESIM	ESIM operations aboard foreign-registered aircraft and vessels temporarily present within Bahamian territory, waters, or airspace, authorised by	No separate Bahamian authorisation generally required.	Proposed Key Licence Conditions: • Must be authorised by the relevant home administration. • Must operate on a non-interference basis. • Must not provide local electronic	Ka, Ku bands.	Not applicable

		their home administration and operating on a non-interference basis.		communications services directly within The Bahamas. • Subject to any applicable provisions of section 17(1)(d) of the Communications Act, 2009. • URCA may require authorisation where the nature, scale, duration, or commercial characteristics of the operation warrant regulatory oversight.		
FSS	Gateway Earth Station	Dedicated ground-segment gateway facilities used by NGSO/GSO satellite operators to connect space-segment infrastructure to terrestrial networks in The Bahamas.	• Individual Spectrum Licence required for each gateway assignment. • IOL (where access to public land under Part XIV of the Communications Act, 2009 is required, or where the operator provides services	Must comply with applicable interference coordination and protection requirements. Must comply with baseline licence conditions including lawful intercept, disaster management, and USF obligations.	Ka, Ku, C, Q/V bands (as applicable to the relevant assignment)	Bandwidth-based fee calculated under ECS 01/2016 having regard to assigned bandwidth, frequency band factor, technology factor, and interference factor.

			involving interconnection with Bahamian networks or use of national numbering resources); COLRR (where no such requirements apply).			
D2D[10]	Messaging / Low-Rate Data	Direct satellite connectivity to consumer devices in remote or underserved areas.	(1) IMT-based – COLRR (partnership with MNO); (2) MSS-based – ISL + COLRR.	• No voice services. •Must comply with baseline conditions and requirements set out above in section 2.4 of this document. • No harmful interference. • Operate within assigned bands/power limits. • Must comply with ISL/COLRR/CSLRR conditions.	Designated IMT bands (MNO); MSS L & S bands	Annual URCA Fee and Comms Licence Fee as above; Spectrum Fee per assignment type (shared or exclusive) as set out above; Tribunal Fees TBD.
IoT / M2M[11]	Machine-to-Machine / Low-	Satellite-based telemetry and	COLRR + CSLRR (shared) or ISL (exclusive)	• No harmful interference. • Operate within	MSS L & S bands; Ka, Ku bands	Same fee approach as D2D.

[10] * D2D services will be authorised on a trial and testing basis only. Commercial deployment is subject to further review by URCA having regard to relevant international, regional, technical, and regulatory developments, including the outcomes of WRC-27. Trials may, where appropriate, be conducted through the proposed Innovation Reef regulatory sandbox or another suitable trial or testing framework established by URCA.

[11] * IoT/M2M services will be authorised on a trial and testing basis only. Commercial deployment is subject to further review by URCA having regard to relevant international, regional, technical, and regulatory developments, including the outcomes of WRC-27. Trials may, where appropriate, be conducted through the proposed Innovation Reef regulatory sandbox or another suitable trial or testing framework established by URCA.

	Bandwidth IoT	control communications.		assigned bands/power limits. •Must comply with baseline conditions and requirements set out above in section 2.5 of this document.		
Emergency / Disaster Comms	Deployable Emergency Networks	Satellite communications for emergency response.	Temporary COLRR / ISL / CSLRR (as applicable)	• Priority access protocols. • Emergency-use restrictions. Other conditions may apply depending on spectrum usage.	Determined by emergency service type	Fees waived for approved emergency use.

3. Conclusion

URCA extends its sincere gratitude to each of the Respondents for their valuable and substantive submissions across both rounds of consultation. The quality and breadth of engagement from licensed terrestrial operators, satellite network operators, industry associations, and national interest stakeholders alike has materially shaped the regulatory framework adopted in this Statement of Results.

URCA is satisfied that the framework reflects genuine consideration of the diverse perspectives advanced throughout this process, is grounded in the statutory objectives of the Comms Act, aligns with the national policy objectives set out in the ECSP 2024–2027, and has been informed by relevant international best practices and regulatory developments. URCA encourages continued stakeholder engagement in future consultations and in the implementation processes described below.

Following its careful consideration of all submissions received, URCA confirms the following principal decisions, as reflected throughout this SoR:

Licensing
URCA has confirmed that the existing ECS licensing framework, comprising the Individual Operating Licence and the Class Operating Licence Requiring Registration, applies to satellite-based electronic communications services on a technology-neutral and service-based basis, without the need for a new satellite-specific licence category. The distinction between licence categories will be applied having regard to the nature of the services provided, the operator's role in the service delivery chain, and the regulatory objectives engaged. Wholesale satellite capacity providers will generally fall within a class-based licensing framework, and blanket operator-level authorisation will extend to user terminals operating within defined technical parameters.

Gateway earth station operators requiring access to public land in The Bahamas will be required to hold an IOL. Where no such requirement applies and the operator does not provide services involving interconnection with Bahamian public electronic communications networks or the use of national numbering resources, a COLRR will generally be the appropriate operating licence category. Gateway earth stations require an ISL.

Spectrum fee framework
URCA confirms a hybrid fee model for FSS operators comprising a flat annual spectrum licence fee of BSD $40,000 and a turnover-linked component of 3% applied only to the portion of Relevant Turnover exceeding BSD $500,000 in a given licence year, revised downward from the proposed 5% to reflect the cumulative regulatory fee burden on satellite operators. URCA further adopts the BSD $3,000 annual blanket authorisation fee for ESIM service providers and confirms the application of the Bandwidth-Related Fees Methodology (ECS 01/2016) to exclusive-use spectrum assignments, subject to proportionate application of the relevant technical factors. The satellite spectrum-fee methodology will be subject to periodic review on a three-year cycle, in coordination with the National Spectrum Plan review process, having regard to relevant factors including market and technology developments. URCA nevertheless reserves the right to conduct an earlier review where warranted by material technological,

market, regulatory, or competitive developments within the electronic communications sector. Gateway earth stations spectrum fees will be calculated in accordance with ECS 01/2016 based on the relevant assignment characteristics. For the avoidance of doubt, the hybrid FSS fee and gateway ISL fee apply independently and neither offsets the other.

D2D Services

URCA has determined that D2D services should initially proceed on a trial and testing basis, having regard to the evolving technical, spectrum-management, interoperability, and regulatory considerations associated with such services. URCA anticipates that such trials will primarily be facilitated through the proposed Innovation Reef regulatory sandbox, if implemented, although URCA may utilise other trial or testing mechanisms where appropriate. Any such authorisations will remain subject to conditions addressing spectrum coordination, lawful interception obligations, mobile network operator coordination requirements, local nexus obligations, and other applicable regulatory safeguards. The applicable conditions will also reflect the technical and service-category distinctions between broadband D2D, narrowband IoT D2D, and emergency messaging use cases. URCA will continue to monitor relevant international, regional, technical, and regulatory developments, including the outcomes of WRC-27, and may review and refine the applicable framework where appropriate.

Satellite-based IoT and M2M services

URCA has determined that satellite-based IoT and M2M services may initially proceed on a proportionate trial and testing basis under the existing framework, having regard to the distinct technical and commercial characteristics of those service models. URCA anticipates that such trials will primarily be facilitated through the proposed Innovation Reef regulatory sandbox, if implemented, although URCA may utilise other trial or testing mechanisms where appropriate. URCA has further confirmed that MSS spectrum assignments will be preserved for IoT, M2M, and D2D services pending the outcomes of WRC-27. As mentioned above, URCA will continue to monitor relevant international, regional, technical, and regulatory developments and may review and refine the applicable framework where appropriate.

Orbital and Environmental Sustainability

URCA has incorporated baseline conditions requiring space operators providing electronic communications services in The Bahamas to operate in accordance with internationally recognised standards for orbital sustainability, spectrum stewardship, and space-debris mitigation, incorporated as a standard licence condition. Compliance will be demonstrated through an attestation mechanism, with URCA relying on home-jurisdiction authorisations (e.g. FCC, Ofcom, ARCEP, ACMA) rather than independent technical assessment. All licensees must comply with applicable Bahamian environmental laws and cooperate with DEPP and CAAB. Obligations will be applied proportionately having regard to service type, orbital configuration, and constellation characteristics.

Emergency communications and disaster resilience

URCA has mandated a baseline obligation requiring all satellite licensees to cooperate with DRMA, the Ministry of National Security, and other relevant national emergency management authorities in support of emergency communications and service continuity during declared national emergencies. These obligations will be applied proportionately having regard to the operator's role within the communications value chain. The detailed operational and technical implementation measures, including

pre-positioning arrangements, interoperability standards, public-alert system integration, and CECI designation review, will be developed through the upcoming 2026 consultation on the Disaster Management Regulations.

Lawful access, interception, and data protection

URCA has confirmed a cooperation-focused compliance framework grounded in the Interception of Communications Act, 2018 and the Evidence Act, centred on notification obligations, designated points of contact, annual Compliance Attestations, and demonstrated data accessibility to authorised Bahamian authorities regardless of the jurisdiction in which data is stored. URCA retains discretion to require the appointment of a local representative in circumstances where an operator's configuration, risk profile, or compliance history justifies enhanced oversight. URCA will publish operational guidance identifying the categories of circumstances that may ordinarily inform the exercise of that discretion.

Baseline licence conditions

URCA has confirmed that the proposed baseline ECS obligations appropriately extend to satellite-based licensees on a technology-neutral basis. The universal service obligation has been revised to ensure technology-neutral drafting consistent with URCA's broader universal service regime. The Section 2.8.2 summary table of permissible services and regulatory treatment has been revised to reflect the decisions adopted in this proceeding, including the explicit treatment of ESIM blanket licensing, the classification of visiting and foreign-registered ESIM operations, and the alignment of IoT/M2M and D2D service classifications with the decisions under Questions 1, 3, and 4.

URCA considers that the framework established through this proceeding provides a clear, proportionate, and forward-looking regulatory foundation for the introduction and development of satellite-based electronic communications services in The Bahamas. URCA further considers that the framework appropriately balances the promotion of innovation and investment with the need to safeguard competition, ensure effective spectrum management, support national resilience objectives, and maintain appropriate regulatory oversight.

URCA recognises that satellite technologies, market structures, and international regulatory approaches will continue to evolve. Accordingly, URCA will continue to monitor relevant international, regional, technical, and regulatory developments and may review and refine aspects of the framework where appropriate to ensure its continued effectiveness and alignment with the objectives of the Comms Act, the ECSP 2024–2027, international best practices, and the broader public interest. As the framework is implemented, URCA may, where appropriate, provide further clarification regarding the application of the framework through licence conditions, technical requirements, operational guidance or other implementation instruments.

Implementation of the Framework

URCA will take the necessary regulatory and administrative steps to implement the framework adopted in this SoR, including the issuance of any new or revised licence conditions, licence application procedures, registration requirements, spectrum licensing processes, operational guidance, and other implementation instruments that may be required. URCA will engage with stakeholders, where appropriate, to facilitate the orderly implementation of the framework and to address operational

matters arising during the transition.

Where satellite operators are currently authorised under temporary licences, interim authorisations, transitional arrangements, or legacy licensing frameworks, URCA will engage with the relevant operators to facilitate their transition to the licensing and spectrum authorisation framework adopted in this SoR. The timing, process, and any applicable transitional measures will be determined by URCA having regard to the nature of the services provided, existing authorisations, and the need to ensure continuity of service, regulatory compliance, and the orderly implementation of the framework.