CONSULTATION DOCUMENT

Consultation Paper on Recommendation to Amend the Telecommunications (Fees) Regulations of the ECTEL Member States for new Satellite Services

1. The National Telecommunications Regulatory Commission is in receipt of a submission from ECTEL containing a consultation paper on the **Recommendation to Amend the Telecommunications (Fees) Regulations for the Member States for new Satellite Services**.

2. A copy of the consultation document is attached.

3. The initial comments period will run from ***1st December 2021*** **to** ***14th December 2021.***

4. The Comment on Comments period will run from ***16th December 2021*** **to** ***22nd December 2021***.

5. Following the Reply Comments period, ECTEL's Directorate will revise and submit the Proposed Amendment to the Telecommunications (Fees) Regulations to the Council of Ministers for its recommendation for adoption in the ECTEL Member States.

6. All responses to this Consultative Document should be written and sent by post, fax or e-mail to: -

Managing Director
ECTEL
P. O. Box BW395,
Gros Islet, LC01 601
Saint Lucia
Fax: 1-758-458-1698
Email:consultation@ectel.int

Disclaimer

This consultative document does not constitute legal, commercial or technical advice. The consultation is without prejudice to the legal position of ECTEL's duties to provide advice and recommendations to the Ministers with responsibility for electronic communications and the National Telecommunications Regulatory Commissions

EASTERN CARIBBEAN TELECOMMUNICATIONS AUTHORITY (ECTEL)

Consultation Document

Recommendation to Amend the Telecommunications (Fees) Regulations of the ECTEL Member States for new Satellite Services

30th November 2021

Contents

1.0 INTRODUCTION

1.1 One of the main priorities of the Eastern Caribbean Telecommunications Authority ("ECTEL) is to improve access to electronic communications/ telecommunications services, especially reliable broadband services in the five (5) ECTEL Member States. Under Article 4 of the ECTEL Treaty, ECTEL is mandated to promote the introduction of advanced electronic communications/telecommunications' technologies and an increased range of services in its Member States. Advanced electronics communications technologies can take several forms, including terrestrial fixed networks, terrestrial mobile networks and satellite communications networks.

1.2 Compared to terrestrial fixed broadband services, most existing satellite broadband services experience some delay in round trip communications (higher latency) that affects interactive applications like video. They also allow lower capacity, which usually means that satellite operators apply data caps. However, the more modern Non-Geostationary Satellite Orbit ("NGSO") constellations, orbit in low Earth orbit ("LEO") (300-2,000 km from the Earth's surface) and medium Earth orbit ("MEO") (2,000 km to 35,786 km from the Earth's surface) and as such, avoid the issues inherent to Geostationary satellites. The lower altitudes of these satellite constellations mean lower latency (as less time is taken for a signal to travel to and from the satellite), which can improve the consumer experience, particularly for interactive applications. The increased number of satellites in the NGSO constellation, each with a smaller footprint, means that the total capacity of the network is often higher than a single geostationary satellite. Greater capacity means higher speeds can be offered and/or more users can be served by the modern satellite constellations.

1.3 Additionally, NGSO satellite communications constellations have a distinct advantage over terrestrial networks in that they can provide communication services, including broadband services to remote areas, or population centres where the traditional terrestrial network operators may deem challenging in terms of deploying infrastructure or return on investments. NGSO satellite constellations may play an important role in bridging the coverage and capacity gaps to deliver reliable broadband service to remote and underserved geographic areas by offering extensive coverage and easy to deploy solutions.

1.4 Further, in times of catastrophic events, where whole communities or the entire nation is left without communications services, the NGSO satellite

constellations may be used as a means to support emergency response services, public safety and a means to communicate with the outside world. These satellite communications' operators can also provide backhaul support to the terrestrial network operators until network services are restored.

1.5 Therefore, it is important that the licensing and regulatory structure of the ECTEL Member States be responsive to facilitate the entry into the ECTEL Markets, to cater for a wide range of advanced electronic communications' systems, including the modern NGSO satellite constellations. Although the Member States have started the legislative reform with the introduction of a new Electronic Communications Bill and suite of new regulations, ECTEL has recognised that some of the current regulations under the Telecommunications Act[1] may need to be updated to cater for the newer technologies in the interim.

2.0 BACKGROUND

2.1 ECTEL was established by Treaty signed on 4th May, 2000 in St. George's Grenada (and amended by Protocol Amendment in force as of 5th December, 2019) by five (5) Governments; namely the Commonwealth of Dominica, Grenada, the Federation of St. Kitts and Nevis, Saint Lucia, and St. Vincent and the Grenadines. ECTEL provides support to the five (5) Member States for the management and regulation of the electronic communications sector through the National Telecommunications Regulatory Commissions (NTRC) established in each Member State.

2.2 The ECTEL Member States share a harmonised regulatory framework for the management of electronics communications/telecommunications sector and are currently in the process of transitioning from the Telecommunications Acts and regulations to a new Electronic Communications legislative framework. The harmonised regulatory framework in the ECTEL Member States provides a suite of regulations that govern aspects of the electronic communications/telecommunications

[1] Telecommunications Act in all Contracting States: Commonwealth of Dominica - Telecommunications Act, No. 8 of 2000 (as amended); Grenada - Telecommunications Act, Cap. 315C (as revised); St. Kitts and Nevis - Telecommunications Act, Cap. 16.05 (as revised); Saint Lucia - Telecommunications Act, Cap. 19.09 (as revised); and St. Vincent and the Grenadines-Telecommunications Act, Cap. 418 (as revised).

sector from providing access to telecommunications facilities, to the management of the universal service fund. Also, Telecommunications (Fees) Regulations ("Fees Regulations")[1] in each Member State, provide the framework for prescribed fees for licensing of each aspect of electronic communications services. These include prescribed fees for all categories of licences granted by the Minister with responsibility for electronic communications and various radio services for the use of the national spectrum resource.

2.3 In recent times, ECTEL has observed that there have been keen interests by regional and international players in the NGSO broadband satellite services, with increased requests from mobile-satellite operators that provide broadband connectivity to international airlines and sea vessels that traverse the territorial space of the ECTEL Member States. Further, some of these NGSO satellite operators have expressed interest in obtaining licences for Earth-based satellite facilities known as gateways, to meet the capacity demands of satellite constellations, by providing backhaul services.

2.4 The current Fees Regulations require revision, as they do not prescribe fees for the more recent mobile-satellite delivery systems and services. ECTEL has recognised that the Fees Regulations will require amendments to cater for the newer satellite services. Therefore, ECTEL has undertaken research to determine how other regulators are managing the newer frequency bands for satellite services.

2.5 Presently, there are limitations in the Fees Regulations for satellite services, as it only prescribes spectrum fees for Satellite Earth Stations in the C and Ku bands and Very Small Aperture Terminals, also in the C and Ku bands. With the advancement of satellite communications technology in the last two decades, many new services such as NGSOs using Ka, V and L bands among others, have been deployed, which now require amendments to the current Fees Regulations to address these new satellite services in the short term, while we await the implementation of the more all-encompassing Electronic Communications legislative framework.

St. Kitts and Nevis – Telecommunications (Fees) Regulations S.R.O. 13 of 2007 and amended by S.R.O. 23 of 2015; Saint Lucia – Telecommunications (Fees) Regulations S.I. 60 of 2014; and St. Vincent and the Grenadines – Telecommunications (Fees) Regulations S.R.O. 3 of 2007 and S.R.O 10 of 2008.

[1] Commonwealth of Dominica – Telecommunications (Fees) Regulations S.R.O. 15 of 2007 and amended by S.R.O. 31 of 2016; Grenada – Telecommunications (Fees) Regulations S.R.O. 46 of 2006 and amended by S.R.O. 55 of 2014;

3.0 PURPOSE OF THE CONSULTATION

3.1 The consultancy seeks to review and make recommendations on the best regime to be adopted by ECTEL in the pricing of radio frequency applications for satellite communications and an appropriate fee structure for Very Small Aperture Terminal ("VSAT") and Satellite Earth Station ("SES") services in the ECTEL Member States. It examines in detail the pricing or fee structures which have been adopted by several regional regulators, as well as the United States of America's Federal Communications Commission (FCC) for its Satellite Services.

4.0 REVIEW OF REGIONAL SPECTRUM PRICING REGIMES

4.1 Below provides a review of the various regional regulators, including the FCC, on the pricing or fee structures which have been adopted for satellite services.

4.2 Telecommunications Authority of Trinidad and Tobago ("TATT")

4.2.1 The fee structure for satellite communications in the Republic of Trinidad and Tobago, is specified by the Telecommunications (Fees) Regulations, 2006 and it is based on the licensing of satellite earth stations VSAT or earth/gateway stations. Further, the fee structure for satellite services is based on the frequency bandwidth of the uplink frequency of the satellite earth station. As evident from Table 1 below, the Fees Regulations of Trinidad and Tobago prescribe the spectrum fees based on the different frequency bands that the satellite station uses for example, C, Ku band, LBand or Ka band.

Spectrum Bands	**Type of Service**	**Sub-categories**	**Licence Fee Administrative Plus Operating Plus Spectrum Usage**	**Application Fee**
All bands allocated in the Frequency Allocation. Table for these services C-Band, KU-Band, L-Band, KA-Band	Satellite Services: Broadcasting (BSS), Mobile (MSS), & Fixed Satellite Services (FSS)	VSAT – Telecommunication Station Licence	TT150 (USD 22.50) per KHz	TT500 (USD 75)

Spectrum Bands	Type of Service	Sub-categories	Licence Fee Administrative Plus Operating Plus Spectrum Usage	Application Fee
		VSAT – Control/Telemetry Station Licence	TT50 (USD 7.50) per KHz	TT 500 (USD 75)
		Earth Station Licence	TT15,000 (USD 2,250) per MHz	TT700 (USD 105)
		Portable Satellite Communication System Station Licence	TT1.60 (USD 0.24) per KHz	TT 500 (USD 75)
		Commercial TVRO Station Licence	TT1,500 (USD 225) per MHz	TT700 (USD 105)

Table 1: Second Schedule, Satellite Services

Source: Trinidad and Tobago-Telecommunications (Fees) Regulations, 2006

4.3 Utilities Regulations and Competition Authority (The Bahamas) ("URCA")

4.3.1 The fee structure for satellite communications in Bahamas is specified by the approved Fee Schedule URCA 01/2021. Tables 2A and 2B list the fees prescribed for satellite communications and there appears to be no distinction between the different frequency bands in the Bahamas. The URCA makes a distinction between spectrum fees for "premium spectrum" and "standard spectrum". Based on the Fee Schedule, it appears that satellite spectrum fees are prescribed or priced as "standard spectrum". Further, URCA appears to distinguish the spectrum fees for fixed groundbased satellite stations and Earth Station In Motion ("ESIM"). For the fixed ground-based satellite stations, URCA's prescribed fees are based on the size of ground-based user terminal. For example, satellite terminals with dish size equal to or greater than 3 metres, the annual spectrum fee is BSD 4,500 (USD 4,500) and for satellite terminals with dish size less than 3 metres, the annual spectrum fee is BSD 500 (USD 500). Please see table 2A. Additionally, URCA implemented a provisional spectrum fee structure for ESIM which utilises a tiered pricing mechanism. The annual spectrum fee structure for ESIM ranges from a minimum of BSD 200 (USD 200) on private aircrafts and vessels to BSD 25,500 (USD 25,500) on commercial airlines and shipping companies. Please note that the provisional spectrum fee structure for ESIM is subject to review by URCA on an annual basis.

Service	Description	Spectrum Fee (per annum)
Satellite	Satellite terminals with dish size equal to or greater than 3 metres	BSD4,500 (USD 4,500)
	Satellite terminals with dish size less than 3 metres	BSD500 (USD 500)

Table 2A: Station fees

Source: Fee Schedule URCA 01/2021 Issued 5 March 2021

Platform/Craft	Description	Spectrum fee (per annum)
Private Aircraft and Private Vessel	Single aircraft or vessel	BSD200 (USD 200)
Commercial airlines and shipping companies	Fleet less than or equal to 5 aircrafts or vessels	BSD500 (USD 500)
Commercial airlines and shipping companies	Fleet size greater than 5 and less than or equal to 16 aircrafts or vessels	BSD3,000 (USD 3000)
Commercial airlines and shipping companies	Fleet size greater than 16 and less than or equal to 50 aircrafts or vessels	BSD8,500 (USD 8,500)
Commercial airlines and shipping companies	Fleet size greater than 50 aircrafts or vessels	BSD25,500 (USD 25,500)

Table 2B: Earth Stations in Motion (ESIM)

Source: Fee Schedule URCA 01/2021 Issued 5 March 2021

4.4 Spectrum Management Authority Jamaica ("SMA")

4.4.1 The fee structure for satellite communications in Jamaica is specified by the Telecommunications Act 2000, Part IV and The Telecommunications Act (Spectrum Regulatory Fees) (Amendments) Regulations, 2017. The SMA is charged with management of national spectrum resource of Jamaica.

4.4.2 In the case of SMA, the annual spectrum fees structure for satellite communication services is classified as "special services", with the following categories and the associated annual spectrum fees:

- Commercial Earth Station JMD 1,000, 000 (USD 6,400);
- VSAT JMD 500,000 (USD 3,200);
- VSAT (Short term) JMD65,000 (USD 1,050); and • Emergency Earth Station JMD50,000 (USD 320).

4.4.3 As far as can be determined, the SMA prescribes the spectrum fees based on the different frequency bands that the satellite station uses e.g., C, Ku band or Ka band. Finally, it is important to note that the SMA conducted a review of its fee regime in July 2020. ECTEL has been informed by SMA that the Price review has been approved by Cabinet, but has not yet been published.

4.5 Federal Communications Commission ("FCC")

4.5.1 Pursuant to Section 9 of the Communications Act of 1934 (as amended), the FCC collects regulatory fees to recover the regulatory costs associated with its enforcement, policy development and other functions. The FCC is required by Congress to assess regulatory fees each year in an amount that can reasonably be expected to equal the amount of its appropriation. Regulatory fees recover direct costs, such as salary and expenses; indirect costs, such as overhead functions; and support costs, such as rent, utilities, and equipment. It is important to note that the FCC does not charge spectrum fees for satellite communications. The satellite communications providers as well as other service providers in the USA are charged a onetime application fee, except in the case of renewals or transfers of control, as well as an annual regulatory fee.

Type of Fee	Regulatory Fee Payment
Earth Stations	USD 560 per station and USD 560 for each associated Hub Station
Geostationary Orbit Space Stations and Direct Broadcast Satellite Service Licensees; U.S. licensed, and non-U.S. licensed space stations that have gained access through a Petition for Declaratory Ruling and through Earth Station licenses	$98,125 per operational space station in geostationary orbit
Non-Geostationary Orbit Satellite Systems; U.S. licensed, and non-U.S. licensed space stations that have gained access through a Petition for Declaratory Ruling and through Earth Station licenses	USD 223,500 per operational system

Table 3: FCC's Regulatory Fees for Satellite Communications Services

Source: https://www.fcc.gov/document/assessment-and-collection-regulatory-fees-fiscal-year-2021

4.6 ECTEL Member States

4.6.1 Based on the Telecommunications (Fees) Regulations in each Member States, operators of satellite communications services are charged for the spectrum, provided that they have ground-based stations/facilities in an ECTEL Member State. There is also an annual licence fee associated with the ground station, however this licence fee is dependent on the nature of the licensed service granted to the satellite communications operator. Table 4 below captures the current spectrum fees associated with Satellite Earth Stations (C and Ku bands) and VSAT (C and Ku bands) in the

Commonwealth of Dominica and is reflective of the other ECTEL Member States. It is important to highlight that Ka band spectrum and other radio frequency bands associated with newer satellite communication services are currently not included in the Fees Regulations in any of the ECTEL Member States.

Description	Annual Spectrum Fees
Satellite Earth Station SES3 C Band (annual licence)	XCD 60,000 (USD 22,084) per frequency pair
Satellite Earth Station SES4 Ku Band (annual licence)	XCD 50,000 (USD 18,403.33) per frequency pair
VSAT Ku Band	XCD12,000 (USD 4,416.80) /frequency pair
VSAT C Band	XCD15,000 (USD 5,521) /frequency pair

Table 4 : Fees Charged for Satellite Communications Service in ECTEL States

Source: Telecommunications (Fees) Regulations, as amended by S.R.O. 31 of 2016, Schedule 3 (Frequency Authorisation Fees)

5.0 RECOMMENDATIONS

5.1 The review of the Fees structures for the various jurisdictions covered in this document analysed the prescribed fees for the use of the various radio frequency spectrum utilised by satellite communications services. This review suggests that there is a wide variance in the Fees structures among the reviewed jurisdictions and their methods of application. While some jurisdictions do not prescribe a specific spectrum fee e.g., the USA-FCC, other jurisdictions prescribe spectrum fees, but there is no distinction of the frequency bands e.g., Trinidad and Tobago-TATT and the Bahamas-URCA. In comparison the ECTEL Member States prescribe spectrum fees specific to the frequency band and satellite communication platform (VSAT or SES), which poses some limitations.

5.2 From this analysis, ECTEL concludes that there is no standard pricing structure for use of spectrum by satellite communications services and that the current Fees Regulations in the ECTEL Member States are deficient, in that there is no allowance made for the more modern satellite communications services such as Ka band and V band. Therefore, to facilitate a more robust and responsive regulatory framework which

addresses the newer satellite communications' technologies, ECTEL recommends the following to its Member States:

1. That the current fee structure be maintained for SES and VSAT applications for the C and Ku bands; and
2. That the current Schedule 3- Frequency Authorisation Fees) of the Telecommunications (Fees) Regulations in all the ECTEL Member States be amended immediately, to include two (2) new fee subcategories as follows:
    a. Very Small Aperture Terminal (VSAT) Other (VST Other); and
    b. Satellite Earth Station Other (SES Other).

Description	**Spectrum Fees**	
	Application	**Annual**
VSAT Other	XCD 1,000	XCD 12,000/frequency pair
SES Other (annual licence)	XCD 1,000	XCD 12,000/frequency pair

Table 5: Proposed Amendment to Schedule 3 of Telecommunications (Fees) Regulations f or ECTEL Member States

-The End-

REFERENCES

- OFCOM (2021), "Non-geostationary satellite systems - Licensing updates", 26 July 2021, https://www.ofcom.org.uk/__data/assets/pdf_file/0015/222450/ngso-licensingconsultation.pdf

- Telecommunications Authority of Trinidad and Tobago, "Telecommunications (Fees) Regulations, 2006 of Trinidad and Tobago", https://tatt.org.tt/Portals/0/Documents/Fee%20Regulations,%202006.pdf

- Utilities Regulations and Competition Authority, the Bahamas, "Fee Schedule URCA 01/2021 Issued 5 March 2021", https://www.urcabahamas.bs/wp-content/uploads/2021/03/2021-Fee-Schedule_Final.pdf

- Spectrum Management Authority, Jamaica, "Telecommunications Act (Spectrum Regulatory Fees) (amendments)", https://www.sma.gov.jm/schedule-of-feesspectrum-fees/

- Federal Communications Commission (2021). "Assessment and Collection of Regulatory Fees for Fiscal Year 2021", May 4, 2021, https://www.fcc.gov/document/assessment-and-collection-regulatory-fees-fiscalyear-2021