FRAMEWORK ON OVER-THE-TOP SERVICES (OTTS) IN TRINIDAD AND TOBAGO

October 2024 TATT:2/17/41

Maintenance History		
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Table of Contents

List of Figures

Abbreviations

BEPS:	base erosion and profit shifting
BEREC:	Body of European Regulators for Electronic Communications
CAP:	content and application provider
CARICOM:	Caribbean Community
CDN:	content delivery network
CITEL:	Inter-American Telecommunication Commission
CTO:	Commonwealth Telecommunications Organisation
ECS	electronic communications services
EECC	European Electronic Communications Code
ICT:	information and communication technology
ISP:	Internet service provider
ITU:	International Telecommunication Union
IP:	Internet Protocol
MMS:	multimedia messaging service
NRA:	national regulatory authority
OECD:	Organisation for Economic Co-operation and Development
OTT:	over the top
PSTN:	public switched telephone network
QoE:	quality of experience
QoS:	quality of service
RCS:	Rich Communication Services
RTC:	real-time communication
SMS:	short messaging service
TATT:	Telecommunications Authority of Trinidad and Tobago
TSP:	traditional service provider

VOD: video on demand

VoIP: voice over Internet Protocol

Definitions

For the purposes of this Framework, the following definitions shall apply.

Edger provider: An edge provider refers to a content, application, or service provider that operates at the edge of the Internet, delivering content and services to end users through the Internet. This includes platforms and services such as streaming video providers, social media networks, and online marketplaces.

Network operator: A network operator is an entity that provides telecommunications services and manages the infrastructure necessary for transmitting data, voice, and video communications over a network. This includes the ownership and operation of physical network elements, such as cables, routers, switches, and base stations that facilitate communication.

OTTs: Over-the-top services accessed via the Internet that may serve as a full or partial substitute for, and/or may compete with, public telecommunications and/or broadcasting services

OTT broadcasting services: The delivery of audio and/or video content via the Internet, independent of traditional cable or satellite operators, where the Internet service provider (ISP) provides only the transport medium

OTT messaging services: Services that use IP technology to provide instant messaging over the Internet, acting as alternatives to traditional short messaging services (SMS) and multi-media messaging services (MMS)

OTT provider: An OTT provider is a company that delivers content and services directly to users over the Internet, bypassing traditional distribution methods such as telecommunications and broadcasting channels.

OTT voice services: VoIP service offerings accessed via an Internet connection provided by a third party, enabling app-to-app and app-to-public switched telephone network (PSTN) connectivity

QoE refers to the overall level of satisfaction or dissatisfaction a user feels when using a particular product, service, or application. It encompasses the user's perceptions, emotions, and responses,

which can be influenced by various factors such as usability, accessibility, performance, and aesthetics.

QoS: The collective effect of performance which determines the degree of satisfaction of a user of the service. It is a measure of the performance of services delivered by network mechanisms.

TSP: Refers to an authorised service provider that offers a variety of communication services, including voice, data, and Internet access

1 Introduction

1.1 Background

According to the International Telecommunication Union (ITU)[1], over-the-top services (OTTs) are reshaping and expanding the entire communication ecosystem, whilst strengthening ubiquitous connectivity and providing social and economic benefits to consumers and the global economy. Considering the growing presence of OTTs, both in international and national markets, ITU has encouraged Member States to "consider and develop enabling policies and/or regulatory frameworks to foster fair competition between network operators and providers of OTTs" (ITU, 2019).

Globally, OTT regulation presents a varied picture showing different stages of development. Governments have been driven by a variety of policy and regulatory objectives including economic factors, the public interest, preservation of cultural diversity and the protection of citizens. Regulatory initiatives may be embedded in existing sectoral legislation such as telecommunications laws and broadcasting codes or related legislation such as data protection laws, consumer protection laws and competition laws. Otherwise, in a number of cases, recognising the unique features of OTT providers, new regulatory regimes were developed to govern their behaviours.

While growth in the use of information and communications technology (ICT) has been spurred by several factors, one factor stands out from the rest. A very significant portion of the growth in data traffic has been driven by a small number of leading OTT providers. A study conducted by Sandvine in 2021 reveals that the six largest OTT companies—Alphabet, Meta, Netflix, Apple, Amazon, and Microsoft—were responsible for 62% of the total internet traffic in the region (Figure 1). Furthermore, the traffic generated by these particular OTTs in 2021 surpassed the entire data traffic recorded in 2019, illustrating a substantial surge in demand for their services. (Axon Partners Group, 2022).

[1] The International Telecommunication Union (ITU) is the United Nations specialised agency for information and communications technologies (ICTs).

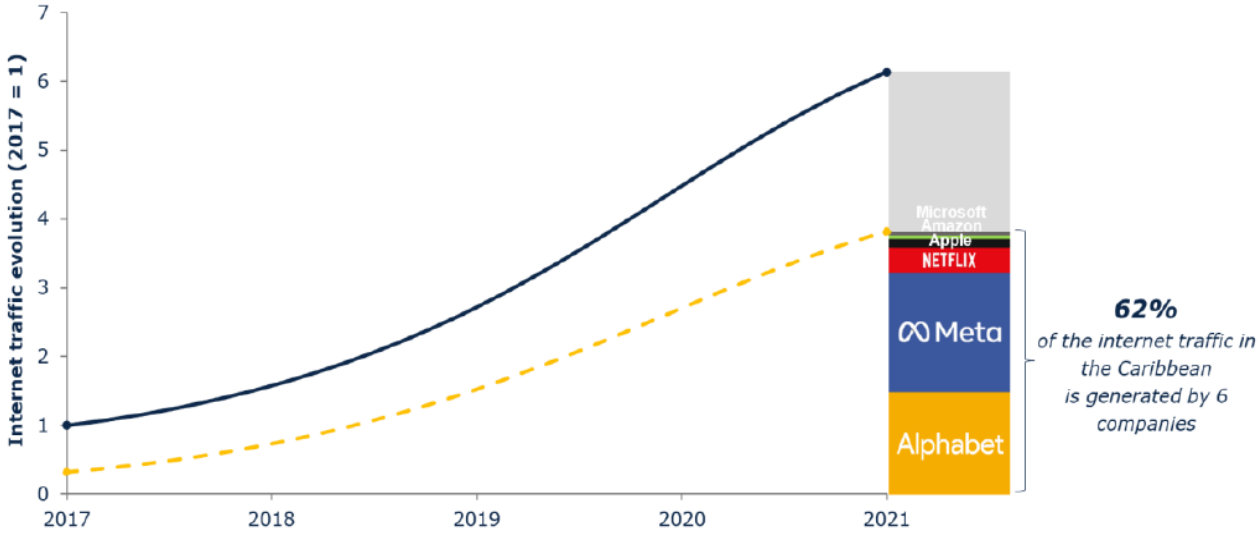

Figure 1: Evolution of Internet traffic

Source: Impact of OTTs on Caribbean networks and implications of their fair share contribution to countries' development - Axon Partners Group

The Telecommunications Authority of Trinidad and Tobago (the Authority) first considered the topic of OTTs in its consultative document *Towards the Treatment of Over-the-Top (OTT) Services* (2015). That document explored the concept of OTTs and, in particular, sought to examine the interaction between the markets in which OTT providers and traditional service providers (TSPs)[2] operate in Trinidad and Tobago. In addition to evaluating the impact of OTT voice over Internet Protocol (VoIP) services within the industry, the document also aimed to engage the public on pertinent issues relating to OTTs.

In reviewing the feedback received from the public consultation on that document, the Authority noted that many of the comments were heavily focused on the issue of net neutrality. Generally, this term refers to the principle that all Internet traffic should be treated equally, without regard to its content, destination or source. It was, therefore, evident that the treatment of OTTs could be addressed within a larger overarching framework that includes a discussion on the principle of net neutrality. At that time, the Authority took the decision to combine previous discussions on OTT issues and net neutrality into one document addressing both topics.

[2] Throughout this Framework, a telecommunications service provider (TSP) refers to an authorised service provider that offers a variety of communication services, including voice, data, and Internet access. This differs from a network operator, which specifically manages the physical infrastructure, such as cables and towers, necessary for delivering these services. Additionally, an Internet service provider (ISP) is a specialised type of TSP that focuses primarily on providing Internet access services.

In July 2018, the Authority began public stakeholder discussions on the topics of net neutrality and OTT regulation through its consultative document *Discussion Paper on Net Neutrality and OTT Services in Trinidad and Tobago* (the Discussion Paper)[3]. The Authority sought feedback on the document from stakeholders with respect to the proposed guiding principles and regulatory approaches to net neutrality and the treatment of OTTs in Trinidad and Tobago. While both topics were addressed within the Discussion Paper, the document partitioned the treatment of net neutrality principles and OTT regulation, with the former contained in sections 1 to 8 and the latter exclusively addressed in section 9.

In October 2021, the Authority published the decisions on recommendations (DORs) and the final version of the Discussion Paper. Based on feedback from that consultation process, and considering the dynamism of the industry, the Authority indicated in that document that future consultations on both topics would continue in separate frameworks on net neutrality and OTTs.

1.2 Purpose

This Framework presents the Authority's strategies and recommendations for addressing OTTs accessed in Trinidad and Tobago. The recommendations shall guide, where applicable, the Authority's future regulations on OTT telecommunications and broadcasting services.

1.3 Objectives

The Framework:

1. presents the definition of OTTs adopted by the Authority.

2. outlines the policy considerations for OTTs, including challenges and opportunities.

3. examines approaches adopted internationally and their relevance within the local context.

4. presents the Authority's short- and long-term strategies for addressing OTTs within its legislative framework.

5. proposes recommendations for the harmonisation of OTT-based policies and regulations at the regional level.

[3]*Discussion Paper on Net Neutrality and OTT Services in Trinidad and Tobago*: https://tatt.org.tt/wp-content/uploads/2023/05/DownloadableDocuments-23.pdf

6. explores options for OTT providers' investment within the industry, inclusive of infrastructure and local content development.

1.4 Scope

This Framework addresses the Authority's approach to OTTs in Trinidad and Tobago, outlining policies and strategies on OTT authorisation, collaboration, and investment. It focuses on OTT telecommunications services, such as voice and messaging, as well as OTT broadcasting services, as identified in the Act.

This document does not conduct any detailed assessment or make specific determinations on the classifications of OTT telecommunications and broadcasting services. These activities will be addressed in a separate document.

1.5 Legal and Regulatory Framework

The Telecommunications Act, Chap 47:31 (the Act)[4] provides the legislative basis for the development of a regulatory framework for services that can be classified as a telecommunications or broadcasting service. Section 3 contains the objects of the Act, which include, inter alia, establishing conditions for:

> (a) an open market for telecommunications services, including conditions for fair competition, at the national and international levels;
>
> (b) the facilitation of the orderly development of a telecommunications system that serves to safeguard, enrich and strengthen the national, social, cultural and economic well-being of the society;
>
> (c) promoting and protecting the interests of the public by—
>
> (i) promoting access to telecommunications services;
>
> (iii) providing for the protection of customers;

[4] The Telecommunications Act, Chap 47:31: https://tatt.org.tt/wp-content/uploads/2023/01/Telecommunications-Act-Chap.-47.31-2022.pdf

(iv) promoting the interests of customers, purchasers and other users in respect of the quality and variety of telecommunications services and equipment supplied.

(f) promoting the telecommunications industry in Trinidad and Tobago by encouraging investment in, and the use of, infrastructure to provide telecommunications services; and

(g) to regulate broadcasting services consistently with the existing constitutional rights and freedoms contained in sections 4 and 5 of the Constitution.

Additionally, section 21 (1) of the Act provides the legislative basis for the authorisation of any service that qualifies as a public telecommunications or broadcasting service in Trinidad and Tobago. Section 21 states that: "no person shall operate a public telecommunications network, provide a public telecommunications service or broadcasting service, without a concession granted by the Minister".

Section 21 (2) continues: "a person who wishes to operate a network or provide a service described in subsection (1), shall apply to the Authority in the manner prescribed."

Part I of the Act includes definitions for a public telecommunications service and a broadcasting service. A public telecommunications service is defined as: "a telecommunications service, including a public telephone service, offered to members of the general public, whereby one user can communicate with any other user in real time, regardless of the technology used to provide such service." A broadcasting service is defined as: "the offering of the transmission of programmes whether or not encrypted, by any means of telecommunications, for reception by the general public, including sound, radio, television and other types of transmissions, such as those on a point to multipoint basis."

1.6 Review Cycle

This Framework will be revised periodically to meet changing and unforeseen circumstances, with a review timeframe of up to five years, pending substantial changes in the industry. The Authority will review the document and, if necessary, make modifications in consultation with stakeholders, to ensure that the Framework is guided by appropriate policy guidelines and objectives.

Questions or concerns regarding the maintenance of this Framework may be directed to the Authority via email at consultation@tatt.org.tt.

1.7 Consultation Process

In accordance with its *Procedures for Consultation in the Telecommunications and Broadcasting Sectors of Trinidad and Tobago* (TATT 2021) (Consultation Procedures), the Authority sought the views of the general public and stakeholders on this Framework. In August 2023, version 0.4 of the Framework was released for the second of two rounds of public consultation for a period of eight weeks. The DORs matrix for the second round of public consultation is attached as Appendix I.

1.8 Other Relevant Documents

Other relevant consultative documents, policies, plans and regulations to be read along with this Framework include:

1. *Authorisation Framework for the Telecommunications and Broadcasting Sectors of Trinidad and Tobago* (ver. 0.5, 2005)

2. *Consumer Rights and Obligations Policy* (ver. 1.0, 2014)

3. *Discussion Paper on Net Neutrality and Over-the-Top (OTT) Services in Trinidad and Tobago* (ver. 0.2, 2021)

4. *(Draft) Framework on Net Neutrality in Trinidad and Tobago* (ver. 0.3, 2021)

2 Definition of an OTT Service

ITU defines OTTs as “an application accessed and delivered over the public Internet that may be a direct technical/functional substitute for traditional international telecommunication services” (ITU 2019). These OTTs may substitute or supplement traditional telecommunications services.

The Organisation for Economic Co-operation and Development (OECD) Communications Outlook 2013 describes OTTs as “video, voice and other services provided over the Internet rather than solely over the provider’s own managed network” (OECD 2013). Similarly, CANTO has described OTTs as “a general term used for services that a customer may use which rides on top of a network to which the customer is connected” (CANTO 2017).

The Body of European Regulators for Electronic Communications (BEREC) defines OTT service as “content, a service or an application that is provided to the end user over the public Internet” (BEREC 2016). The Commonwealth Telecommunications Organisation (CTO), noting the limitation of the BEREC definition, has stated that “ideally, an OTT definition is based on a taxonomy that separates out issues that need be addressed by different regulators”. They have proposed a refined definition that distinguishes between OTTs “that are electronic communication services (OTT-ECS); those that potentially compete with electronic communication services (OTT-Com); those that potentially compete with broadcasting services (OTT-Content); and those that compete neither with electronic communication services nor broadcasting services (OTT-Other)” (CTO, 2020).

2.1 Types of OTTs

2.1.1 OTT Voice Services

These are voice over Internet Protocol (VoIP) service offerings accessed via an Internet connection provided by a third party that is independent of the ISP. There are two main variations of OTT VoIP services, which are those enabling app-to-app connectivity and those enabling app-to-PSTN connectivity.

2.1.2 OTT Messaging Services

OTT messaging services are similar to OTT voice services, as they rely on IP technology to provide instant messaging services to consumers over the Internet. These services may act as an alternative to the short messaging services (SMS) and multi-media messaging services (MMS) provided by authorised mobile telecommunications operators.

OTT voice and messaging services are typically offered as a combined service, referred to as OTT telecommunications services.

2.1.3 OTT Broadcasting Services

OTT broadcasting is described as the delivery of video and/or audio via the Internet, without a cable TV, satellite or broadcast operator necessarily being involved in the control or distribution of the content itself. The content arrives from a third party and is delivered to an end user's device, with the ISP responsible only for providing the transport medium for the IP packets.

3 Policy Considerations for OTTs: Challenges and Opportunities

OTT providers and services now form part of the Internet's ecosystem. Consumers and businesses have benefited significantly from their entry through cheaper communications and expanded media choices. As ITU notes, "OTTs offer essential economic and social features beyond traditional communications services, helping an entire ecosystem to take root and expand in the new digital economy" (ITU, 2020).

Despite this, the prevalence of OTTs has raised several public policy concerns, including their potentially adverse effects on competition and consumer rights (see sections 3.1 and 3.2.). At the same time, there are also economic opportunities to be realised from OTT inclusion within the market. These include collaborative initiatives between OTT providers and ISPs or network operators (section 3.3) and OTT providers' investment in sector development and network infrastructure (section 3.4).

3.1 OTTs and Competition Concerns

A key challenge of OTT providers' entry into the market is determining whether fair competition conditions are being upheld. Notwithstanding their different business models, TSPs and OTT providers may be in direct competition with each other where, from the consumer's point of view, they provide equivalent services.

This raises a concern of whether an OTT provider maintains an unfair advantage over a TSP, given the differences between both providers' regulatory obligations and restrictions. For example, as opposed to their OTT counterparts who currently bear minimal regulatory obligations, TSPs must fulfil regulatory requirements in areas such as licensing, quality of service (QoS), and consumer protection. Similarly, their actions may be subject to more stringent competition assessments than those of OTT providers. Their different regulatory obligations have sparked numerous debates as to whether the differences breed unfair competition in the marketplace. It is argued that the combined effect of these regulatory disparities is to distort the playing field between digital and traditional players.

Additionally, OTT providers benefit from using the network infrastructure built and maintained by TSPs without incurring the same level of costs. While TSPs, particularly network operators, must invest heavily in building and maintaining physical networks such as fibre-optic cables and cellular towers, OTT providers operate "over the top", delivering services utilising these networks at much lower operational expenses. This may enable OTTs to offer similar services at more competitive prices, while TSPs bear the financial burden of infrastructure development and

maintenance, thereby creating a possible disparity that may put traditional providers at a disadvantage in terms of pricing and profitability.

It should be noted that some industry experts remain dissuaded that a regulatory imbalance between TSPs and OTT providers exists. They contend that there is a marked difference in the services provided by traditional and digital providers, both in terms of the control of the underlying infrastructure, and regarding consumer use and perception of the services (Mohit, 2021). There is therefore merit in assessing the nature and function of these services to determine whether they are in the same relevant markets as traditional telecommunications services. Where these services vary, a different regulatory framework may be warranted.

3.2 OTTs and Consumer Impact

OTTs offer significant economic and social benefits to consumers. One of these is the cost advantage of more affordable communications. For example, with respect to voice calls, OTT substitutions are often associated with savings on local and long-distance calls and roaming charges. Secondly, with the proliferation of OTTs, consumers are offered more choice of services to best fit their needs. Personalised content, such as online video-on-demand sites, allows users to customise their media consumption. Consumers also enjoy additional features, such as video calling, further driving demand of that service. This demand has been associated with increased connectivity, social engagement and economic activities.

Through OTTs, citizens benefit from digital solutions which reduce barriers to commerce and trade development. In some countries, OTTs provide novel economic opportunities in the face of rising unemployment rates. For example, in Côte d'Ivoire, online businesses created new trade axes with countries such as China, Morocco, Togo, Turkey and the United Arab Emirates, resulting in increased sales of their products. Additionally, OTTs boost entrepreneurial opportunities for craftsmen, merchants and young persons, by providing a marketplace for the gig economy (ITU, 2020).

As OTTs grow in popularity, however, there is a concern that their disruptive effects and unregulated presence may result in diminished consumer protection. This concern is particularly relevant in areas of data protection and consumer privacy. One of the Authority's mandates is to promote and protect the interests of consumers. Collaboration with relevant agencies responsible for consumer privacy, security, and safety is essential as OTT use becomes mainstream.

3.3 Opportunities for Collaboration between OTT Providers and TSPs

Opportunities exist for collaboration between OTT providers and TSPs, particularly network operators and ISPs. With the prevalence of OTTs, many TSPs have turned to data-centric business models, i.e., business models in which mobile operators have decreased their reliance on voice and SMS charges and have turned towards data services for growing revenues and opportunities. One ITU report, titled 'Economic Impact of OTTs on National Telecommunication/ICT Markets,' noted that this shift has resulted in benefits such as reduced churn rates, increased net promoter scores[5], more stable in-bundle revenue streams, and the ability to link returns more directly to network investment (ITU, 2020).The study also addressed the symbiotic relationship between OTT providers and network operators, noting the collaborative initiatives and opportunities that exist for the parties.

Another collaborative opportunity between network operators and OTT providers lies in network optimisation and content delivery enhancements. Network operators or ISPs can partner with OTT providers to implement content delivery networks (CDNs) that store content closer to users, thereby reducing latency and improving streaming quality. This collaboration not only enhances the user's quality of experience (QoE), but also decreases bandwidth strain on the network operator's or ISP's infrastructure. Additionally, ISPs may benefit from exclusive content offerings or specialised data bundles that prioritise certain OTTs, further driving customer retention and satisfaction.

There are also technical and economic benefits from an ISP-OTT collaboration with respect to managing service quality[6]. OTTs and, in particular, multimedia applications, are highly data intensive and require significant network resources for optimal delivery. Where ISPs and OTT providers act in isolation, end users may experience compromised QoS, since both parties control parameters impacting the delivery of the service. ISP-OTT collaboration may offer a mutually beneficial solution, resulting in increased revenues and improved market positioning for both parties due to the enhanced quality provided to customers.

Other areas for economic partnership identified by ITU include:

1. the bundling of value-added services – including OTT music or video streaming services in operator packages – which can generate new revenues, as well as increase data usage[7].

[5] Net promoter score (NPS) is a customer satisfaction metric that measures how likely customers are to recommend a product or service, using a 0–10 scale.

[6] This term encompasses QoS and QoE.

[7] In Trinidad and Tobago, some mobile operators offer packages that include free access to streaming services. For example, certain mobile plans might include a subscription to a popular music streaming service, allowing customers to enjoy unlimited access to music without using their mobile data.

2. Rich Communications Services (RCS) – the next generation of SMS – enabling business-to-business-to-consumer (B2B2C) revenues from businesses interacting with consumers through carrier channels[8].

3. carrier billing, which enables operators to use their strengths in customer and billing relationships to provide billing capabilities for stores, and content and applications providers (CAPs) (ITU, 2020)[9].

Notwithstanding the opportunities for collaboration that may exist for OTT providers and TSPs, there are concerns regarding the asymmetry of bargaining power between both parties in forming mutually beneficial commercial arrangements. This is particularly a concern in smaller jurisdictions such as Trinidad and Tobago, where multi-national OTT providers may not have a registered presence in the country. One of the recommendations of ITU is that "Member States should encourage mutual cooperation as far as practical between OTT providers and network operators, with a view to fostering innovative, sustainable, viable business models and their positive roles in fostering socio-economic benefits".

3.4 OTTs and Investment in the Industry

In 2024, the OTT media services market is estimated to be valued at USS0.6 trillion and projected to reach US$1.27 trillion by 2029 (Mordor Intelligence, 2024). As a result of this growth, and the consequential increase in data traffic on the networks, operators are faced with growing pressure to increase investment in their network infrastructure. Pointing to falling revenues in traditional telecommunications retail markets, global industry stakeholders, including policymakers and network operators, have expressed concerns over the sustainability of current investment models in relation to telecommunications networks. In response, there are calls for OTT providers to contribute to infrastructure investment in a more proportionate and structured manner. In these petitions, it is often highlighted that OTT providers, whose business models and financial success are enabled through extensive data traffic on the underlying network, should contribute to investment in that network.

[8] For example, a local mobile operator might partner with businesses to offer RCS-based customer service, where companies can send interactive messages, such as appointment reminders, promotional offers, or surveys, directly to customers via the operator's messaging platform.

[9] For instance, a local operator may allow customers to purchase digital content such as apps, games, or subscriptions directly from app stores or content providers, and have the charges added to their monthly mobile bill.

Similarly, the case is also made for OTT broadcasting services to invest locally in the production and development of media content. Noting regulatory inequalities between traditional broadcasters and OTT broadcasting service providers, countries including Australia and Canada are reforming their legislation to capture OTT investment in local content. This includes the creation of new laws that require streaming services to invest a percentage of their locally earned revenue in local content, in the form of commissions, co-productions or the acquisition of content.

4 OTT Perspectives and Trends

ITU emphasises the importance of enhanced cooperation among stakeholders to effectively regulate digital players operating beyond national boundaries, noting that:

1. digital players operate regionally and globally, whereas the jurisdiction of regulators is limited to national boundaries.

2. digital players are outside the jurisdiction of regulators.

3. cooperation and collaboration among stakeholders is crucial at the national and international levels.

In 2020, CTO recognised the following four regulatory perspectives in relation to OTTs:

1. Evolving business models and technological progress mean that regulatory tools and institutional arrangements have to change.

2. Regulation needs to be guided by the principles of minimal intervention and proportionality.

3. The regulation of OTTs is a relatively new field and few regulators have issued formal regulations.

4. OTTs may also be under the purview of other regulators outside the telecoms sector, such as cybersecurity and competition (CTO, 2020).

4.1 Observations on OTTs in Trinidad and Tobago

The proliferation and adoption of OTTs are closely associated with the growth of the Internet and the availability of mobile broadband services. According to the Authority's Annual Market Report[10] 2023, Trinidad and Tobago's total Internet subscriptions[11] for that year reached 1,213,000 (Figure 2). This represents a 2.80% decrease from the previous year's total of 1,248,000. Despite this decline, with the exception of 2018 and 2019, there has been consistent growth in subscriptions

[10] Annual Market Report: Annual-Market-Report-AMR-2023.pdf (tatt.org.tt)

[11] Total Internet subscriptions are the sum of fixed Internet subscriptions and active mobile Internet subscriptions.

in the local Internet market over the past 15 years, demonstrating the ongoing demand for Internet services and applications.

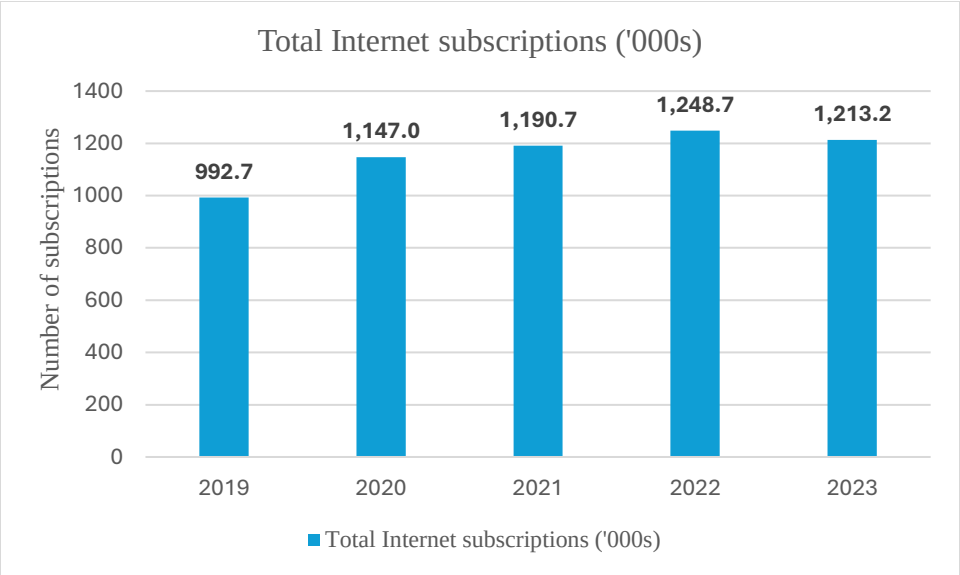

Figure 2: Total number of Internet subscriptions from 2019 to 2023

Source: TATT Annual Market Report 2023
Note: Total Internet subscriptions are the sum of fixed and mobile Internet subscriptions.

The *National Digital Inclusion Survey 2021*[12] (DIS 2021) shows that a significantly high proportion of the local population (83%) reported that they used OTTs. Of persons using OTTs, 79% access the services on a daily basis. The median time in minutes spent calling and messaging using OTT applications generally, and on Wi-Fi specifically, was 30 and 45 minutes, respectively. According to DIS 2021, the highest ranked reported advantage of OTTs compared to mobile and SMS was better quality of connection, particularly through a Wi-Fi connection, perceived by the respondents. These figures in DIS 2021 show the growth in demand and use of OTTs in Trinidad and Tobago.

The Authority's *Determination: Retail Domestic Mobile Telephony Market Definition*[13] highlights that OTTs significantly influence the domestic mobile market in Trinidad and Tobago, with 70%–

[12] National Digital Inclusion Survey 2021: https://tatt.org.tt/wp-content/uploads/2023/02/National-Digital-Inclusion-Survey-DIS-2021-Final-Report.pdf

90% of respondents using these services. OTTs act as a competitive constraint on traditional mobile operators, although they are not seen as perfect substitutes for entire mobile plans.

4.2 Network Operators' and TSPs' Perspectives on Infrastructure Investment

From the network operators' perspective, OTTs, such as video streaming and social media, have led to a substantial increase in data traffic, which places significant strain on existing telecommunications infrastructure, and raises concerns about network congestion. This congestion not only affects the QoE – resulting in slower speeds, increased latency, and service interruptions – but also poses challenges for operators in maintaining service reliability and fulfilling service level agreements (SLAs). Consequently, network operators are increasingly concerned about their ability to manage this surge in traffic effectively without incurring significant additional costs or compromising service quality.

The surge in OTTs has also disrupted traditional revenue models, particularly those associated with voice calls and SMS, leading to financial pressure on TSPs. Both network operators and TSPs contend that existing regulatory frameworks must adapt to these shifts more effectively, thereby ensuring that they reflect current market dynamics and support sustainable business practices. They emphasise the need for policies that promote fair competition, enable cost recovery for infrastructure investments, and ensure a level playing field between traditional services and OTT offerings.

4.3 OTT Providers' Perspectives on Infrastructure Investment

From the perspective of OTT providers, substantial investments in network infrastructure by major technology companies, such as Google, Amazon, and Facebook, have significantly transformed the broadband landscape. An Analysys Mason report highlights how these investments are reshaping the economics and competitive dynamics for traditional broadband ISPs. OTT providers are increasingly building their own infrastructure – data centres, CDNs, and undersea cables – which enables them to manage and optimise traffic more efficiently. This shift reduces their dependence on traditional ISPs and has the potential to lower the operational costs for OTT providers. It enables OTT providers to offload significant traffic from ISP networks, potentially altering ISP cost structures and revenue models, and sometimes bypassing ISPs entirely. This development impacts the ISPs' control over service delivery and pricing, intensifying competitive pressures within the broadband market (Analysys Mason, 2022).

4.4 Global Trends in Including OTTs in Legislative Frameworks[14]

Many countries are at various stages of incorporating OTT telecommunications and broadcasting services into their laws and regulations, while addressing operations that originate from outside their borders. Based on the Authority's research, jurisdictions that meet similar characteristics to Trinidad and Tobago – such as geography, population size, and technological development – have yet to adopt formal legislative positions on OTTs. Several jurisdictions, including Australia and the European Union (EU), have amended their regulatory frameworks to explicitly incorporate OTTs and address the relevant operations originating from outside their local jurisdictions.

4.4.1 Australia

In 2018, the Australian government approved the Telecommunications and Other Legislation Amendment (Assistance and Access) Bill. The bill was introduced in response to the increasing challenges posed by new technologies. It extends regulatory enforcement assistance obligations[15] to a new category of regulated entity, namely, "designated providers"[16]. This captures any providers of communications services and devices in Australia, irrespective of where they base their operations, and includes providers of electronic services software/suppliers, and equipment and device manufacturers.

Designated providers are required to assist law enforcement agencies in accessing communications, including encrypted data, when requested. This assistance may involve complying with industry assistance notices that compel providers to undertake specific actions, such as decryption or granting access to communication data[17].

[14] This sub-section includes information on various countries' approaches to OTT legislation, based on the Authority's research from publicly available sources. As such, the information presented in this section is considered a fair and accurate representation of the treatment, or proposed treatment, of OTTs in these particular jurisdictions at the time of publication of this Framework. The Authority recognises that this information is subject to change as regulatory frameworks and market conditions evolve.

[15] Regulatory enforcement assistance obligations refer to the legal requirements imposed on designated providers to assist law enforcement agencies in accessing communications data and facilitating investigations, particularly regarding encrypted content. This includes complying with requests for assistance, such as decryption or providing access to communication records, aimed at enhancing national security and public safety

[16] Designated providers encompass all entities offering communication services, including OTT providers, subjecting them to similar obligations as traditional telecommunications operators, under the Assistance and Access Act. This includes any person who provides an electronic service that has one or more end users in Australia.

[17] For more information, see the Australian Government Department of Home Affairs: https://www.homeaffairs.gov.au/help-and-support/how-to-engage-us/consultations/the-assistance-and-access-bill-2018.

4.4.2 Bahrain

Bahrain shares similarities with Trinidad and Tobago in terms of its geographic size and population, which make the regulatory approach to telecommunications particularly relevant. In 2020, the Telecommunications Regulatory Authority of the Kingdom of Bahrain issued for consultation its *Position Paper on the Licensing Approach to IP-Based Voice and Messaging Services*. The document clarifies that, under the Internet Service Provider Licence, the prohibition on providing "basic voice services" includes number-based services and does not extend to number-independent services. Furthermore, the paper confirms that provisions of the *Telecommunications Laws* apply to all number-based service providers, regardless of their jurisdiction of establishment and the location of their technical equipment, if they effectively, deliberately and purposefully direct their activities to residents of the Kingdom of Bahrain[18].

4.4.3 Brazil

Under the current Brazilian legislation, OTT services and applications are classified as value-added services (serviço de valor adicionado or SVA) and are not considered as either telecommunications or broadcasting services. This classification results in OTT providers being exempt from the same regulatory obligations that apply to traditional telecommunications companies[19].

4.4.4 Canada

In February 2022, the Canadian government introduced a new bill to amend the Broadcasting Act and to make related and consequential amendments to other acts, such as the Online Streaming Act which received Royal Assent on 27th April 2023. The aim of the Online Streaming Act is to expand the authority and powers of the Canadian Radio-television and Telecommunications Commission (CRTC), and it will bring online broadcasters – including online streaming platforms – under the same regulatory framework as traditional broadcasters providing services and content in Canada.

Although the CRTC has recognised that new media digital and Internet content delivery platforms do fall within the definition of "broadcasting" for the purposes of the Broadcasting Act, it exempted these platforms from broadcast licensing and regulation through the promulgation of

[18] For more information, see: TRA-Bahrain-20200716172358572_mggva2ur_rxr.pdf (samenacouncil.org)

[19] See further: Anatel – Agência Nacional de Telecomunicações (www.gov.br)

successive digital media exemption orders. These amendments to the Broadcasting Act are also aimed at creating more opportunities to showcase and support Canadian content, by granting the CRTC the power to require online broadcasters and OTT platforms to make financial contributions in support of Canadian creators and programming, similar to already existing arrangements with traditional broadcasters.

The Online Streaming Act contains the following key amendments to the Broadcasting Act:

1. Regulating online service providers: the Online Streaming Act would make "online undertakings" a defined class of broadcasting undertakings under the Broadcasting Act, which would give the CRTC the explicit authority to require online services, including OTT platforms, to promote and contribute further to the creation of Canadian content.

2. Regulatory approach: the Online Streaming Act grants the CRTC more expansive powers to impose new regulations on various classes of broadcasting undertakings[20].

4.4.5 The European Union

In 2018, the EU introduced the European Electronic Communications Code (EECC), expanding the definition of electronic communications services (ECS) to include OTTs. This new framework categorises ECS into three groups: Internet access services, services mainly focused on conveying signals, and interpersonal communication services (ICS). The ICS are further divided into number-based services, which connect to the PSTN, and number-independent services, which do not use publicly assigned numbers. This significant regulatory shift aimed to bring OTT services under a structured legal framework that previously excluded them.

As of 2024, approximately 23 EU member states have implemented the EECC into their national laws, with countries like Austria, Belgium, and Spain leading the way. The new regulations require OTT providers using publicly assigned numbering resources to register and comply with regulatory requirements. However, OTT services that do not connect to the PSTN face fewer obligations[21].

[20] For further details, see the following sources:

1. Government of Canada - Online Streaming Act Overview: https://www.canada.ca/en/canadian-heritage/services/online-streaming-act.html.

2. Canadian Radio-television and Telecommunications Commission (CRTC) - Online Streaming Act: https://crtc.gc.ca/eng/archive/2022/2022-82.htm.

[21] European Commission: The European Electronic Communications Code: https://ec.europa.eu/digital-strategy/our-policies/european-electronic-communications-code_en

4.4.6 The United States

Under its Communications Act, the US classifies OTTs as information services, so they are deregulated, with the exception of some requirements. Information services are, therefore, not subject to regulation similar to telecommunications services.

The existing regulations for OTTs are as follows:

1. Communication OTTs[22]: an obligation to offer free 911 emergency calls; facilitate numerical portability; notify if a 911 message has not been sent; allow intercepting calls under the request of security or intelligence forces; and issue notices of promotions and discounts

2. Audio-visual OTT[23]s: an obligation to include subtitles in video content for persons with hearing impairments. Some states levy a tax on these OTTs.

3. Music OTTs[24]: an obligation to report the payment of royalties or intellectual property ownership rights

While OTTs are subject to federal consumer and privacy protection laws, there is no harmonised regulatory framework that imposes specific regulatory restrictions and obligations to the same extent as those that apply to TSPs[25].

[22] Examples include WhatsApp, Skype, and Viber.

[23] Examples include Netflix, Hulu, and Disney+.

[24] Examples include Spotify and Deezer.

[25] For additional information on the regulatory landscape for OTT services in the U.S, see: About the FCC | Federal Communications Commission

4.5 Global Trends in OTT Investment in Infrastructure[26]

Global increases in digital consumption have spurred exponential growth in data traffic. Some market analysts estimate that this is largely due to the use of OTTs (ITU, 2020). The increase in traffic has resulted in additional investment requirements for network upkeep and expansion. While these investment obligations have generally rested with TSP, it is now recognised that the nature of infrastructure demand and deployment is shifting (ITU, 2020). Growing traffic demands necessitate intensive and sustainable investment in broadband infrastructure. This, in turn, requires a shift in investment models, driven by the major beneficiaries of the infrastructure. Thus, OTT providers are increasingly being called to augment their investment in network infrastructure, as they benefit substantially from network connectivity.

Different approaches have been adopted by various network operators to quantify costs for mobile and fixed networks. In both cases, cost calculation revolves around a common concept: the determination of incremental costs, which are the costs incurred by network operators just to serve the additional volume of traffic. In other words, incremental costs are the costs that would be saved if OTT-driven traffic was no longer generated. Regional network operators have calculated OTT-driven costs for mobile networks as the product of the three variables, as identified in Figure 3, i.e., incremental costs per GB, annual data traffic, and the share of OTT traffic. The end result is a purported estimated cost of between US$201 and US$268 million per year in the Caribbean region. The purported estimated cost for fixed networks is between US$18 and $US47 millions per year, as identified in Figure 4.

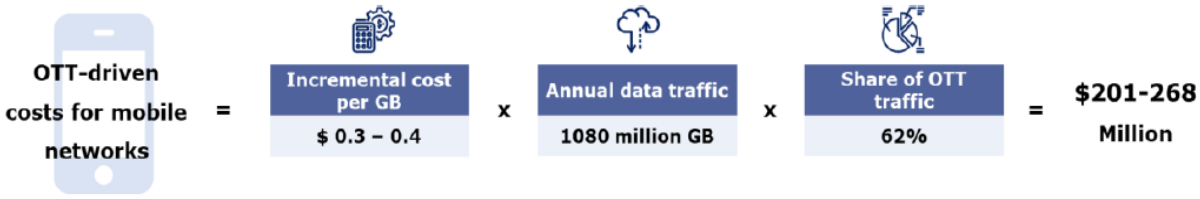

Figure 3: Quantification of the annual OTT-driven costs for mobile networks in the Caribbean region

Source: Impact of OTTs on Caribbean networks and implications of their fair share contribution to countries' development - Axon Partners Group

[26] This sub-section includes information on various countries' approaches to OTT investment in infrastructure, based on the Authority's research from publicly available sources. As such, the information presented in this section is considered a fair and accurate representation of the treatment, and proposed treatment, of OTTs in particular jurisdictions at the time of publication of this Framework. The Authority recognises that this information is subject to change as regulatory frameworks and market conditions evolve.

Figure 4: Quantification of the annual OTT-driven costs for fixed networks in the Caribbean region

Source: Impact of OTTs on Caribbean networks and implications of their fair share contribution to countries' development - Axon Partners Group

A report by the Broadband Commission for Sustainable Development[27] recommends that governments and policy makers look towards digital platforms in their efforts to broaden the contribution base to support sustainable broadband development. The report states that "governments and policy makers should be aware of existing case studies and the benefits of contributions and investments from such players and ensure a mutually rewarding collaboration with them" (The Working Group for 21st Century Financing and Funding Models for Sustainable Broadband, 2021).

4.5.1 The European Union

The European Commission has advanced a significant proposal aimed at restructuring how digital infrastructure costs are shared among stakeholders. This initiative builds on earlier discussions and proposals advocating for large digital platforms to contribute more directly to network costs. The proposed legislation is designed to address the financial pressures on telecommunications operators caused by the surge in data traffic driven by OTTs. It takes a more balanced approach, where major tech platforms, which heavily utilise network resources, contribute fairly to infrastructure upkeep.

Key aspects of the proposal include defining the criteria for contributions; determining the fair share each platform should pay; and ensuring compliance without undermining net neutrality. The ongoing debate revolves around balancing these contributions with the principles of open Internet access.

[27] The Broadband Commission for Sustainable Development is a public-private partnership established in 2010 by the International Telecommunication Union (ITU), UNESCO, H.E. President Paul Kagame of Rwanda, and Mr. Carlos Slim Helú of Mexico, aimed at fostering digital cooperation and developing actionable recommendations for achieving universal connectivity (Broadband Commission).

The proposal is also being examined in the context of the EU's broader digital strategy, which includes enhancing digital infrastructure, promoting innovation, and ensuring fair competition[28].

4.5.2 The United States

The United States FAIR Contributions Act, proposed in May 2022, focuses on exploring the feasibility of collecting fees from edge providers[29] to support the Universal Service Fund (USF). This fund is used to ensure that all Americans have access to affordable telecommunications services. The legislation requires the Federal Communications Commission (FCC) to conduct a comprehensive study, including seeking public comments on various factors, such as the size of firms that should be required to contribute, the fairness of the current system, and the potential impact on consumers.

As of August 2024, the FCC has been actively soliciting feedback on, and analysing the potential implications of, the FAIR Contributions Act. The agency is working on a report that will assess the feasibility of implementing a contribution system from edge providers. The debate continues over how to structure the contributions and whether they will be effective in supporting the USF without negatively affecting the digital ecosystem. The discussions also include considerations for how such a system might impact broadband expansion efforts and digital equity[30].

4.5.3 South Korea

South Korea's approach to managing network usage fees has evolved significantly due to the increasing traffic generated by content providers like Netflix. Following a legal dispute, in which SK Broadband sought compensation for the increased network usage driven by Netflix's content, the Seoul Central District Court ruled in favour of SK Broadband, while highlighting the need for a clearer regulatory framework. The Korea Communications Commission (KCC) had previously introduced guidelines to ensure fair negotiations between ISPs and content providers, aiming to prevent discrimination and resolve conflicts effectively.
In February 2022, South Korea implemented the cost recovery regime, under the Ministry of Science and ICT. This regime requires major content providers to negotiate compensation with

[28] For more information, see: A Europe fit for the digital age - European Commission (europa.eu)

[29] Edge providers are entities that offer content, services, or applications over the Internet and rely on broadband networks for delivery. OTT providers, as a subset of edge providers, deliver services directly to consumers, bypassing traditional telecom networks. See *Restoring Internet Freedom*, WC Docket No. 17-108, para. 2 (2018).

[30] For more information on the bill, see: S.2427 - 117th Congress (2021-2022): FAIR Contributions Act | Congress.gov | Library of Congress

broadband providers based on their traffic volumes. The system allows for private agreements and avoids imposing fixed fees, providing flexibility in how compensation is determined. The regime aims to balance the financial contributions of large content providers and address the financial pressures faced by broadband operators.

The effectiveness of this cost recovery regime is currently under review, with ongoing discussions assessing its ability to fairly distribute the costs associated with high-traffic content. Stakeholders are evaluating whether the regime meets the needs of network operators and its overall impact on the industry[31].

4.6 Global Trends in OTT Contribution to Investment in Local Content

Local content has considerable value in the promotion of the heritage and culture of a nation. As streaming services grow in popularity, countries are faced with the challenge of preserving local cultural representation and content in media consumption. In response, some countries have implemented regulations on OTT media services, to incentivise or require the provision of local programming. These regulatory initiatives take the form of catalogue quotas, direct investment, and/or levies.

4.6.1 Australia

Since 1st January 2021, larger[32] streaming OTT providers in Australia have been required to report their investments in Australian content. The Australian government is currently exploring the possibility of introducing a content-spending obligation for streaming video on demand (VOD) services that exceed a certain size threshold in the market. Although a specific threshold has not yet been established, organisations like Screen Producers Australia have suggested that streaming services should invest around 20% of their local revenues in Australian content. This initiative aims to ensure that OTT services contribute to the local content ecosystem, enhancing the diversity and availability of Australian stories and programming[33].

[31] For more information, see: SK, Netflix settle yearslong legal battle over net usage fees, vow to work together (koreaherald.com) and 16053 (shinkim.com)

[32] "Larger streaming OTT providers" refers to streaming services that meet specific criteria related to their market size and revenue. While the exact definition is still being finalised, it generally pertains to platforms that have a significant number of subscribers or substantial revenues in the Australian market.

[33] For further details, please check the following sources:

1. Australian Government - Department of Communications and the Arts: https://www.communications.gov.au/

4.6.2 Canada

The CRTC can mandate that OTT services contribute financially to the development, financing, and production of Canadian audio-visual works. This requirement aims to enhance the representation of local culture by ensuring that streaming platforms allocate a specific percentage of their Canadian revenues – potentially around 20% – towards supporting Canadian content creators and productions. Such investments may include funding for original works and co-productions, contributing to a diverse media landscape that reflects Canadian identity. Additionally, the CRTC intends to promote Canadian content within OTT platforms, requiring these services to prioritise local productions in their offerings. This approach seeks to level the playing field between domestic and international services, and ensures that foreign OTT providers also participate in the national cultural narrative[34].

4.6.3 France

France has enacted significant reforms to extend existing direct investment rules to include non-EU foreign linear services that target the French market. This means that OTT media providers are now mandated to invest a percentage of their revenues generated in France into the production of audiovisual works that are either established in or specifically targeting France. This obligation applies only to OTT providers that exceed certain thresholds based on turnover, audience size, and the number or share of audiovisual works made available to the public. The investments must be directed toward EU cinematographic and audiovisual works and can take the form of acquisitions, production, or co-production investments. Additionally, there is a sub-quota for French independent productions, ensuring that the majority of investments do not focus solely on in-house productions. Notably, at least 20% of the investment must be allocated to programming and a similar percentage to films[35].

2. Screen Producers Australia - Initiatives on Streaming Services: https://www.screenproducers.org.au/

[34] For more information, see: Conseil de la radiodiffusion et des télécommunications canadiennes / Canadian Radio-television and Telecommunications Commission | CRTC

[35] For more information, see: Ministère de la Culture

5 Strategy 1: Recommendations on OTT Regulation – A Legislative Approach

The nature of technological convergence and the disruptive aspects of modern-day technology pose challenges to traditional forms of regulation. As markets converge, demands are placed on regulators to adapt and evolve to meet changing business models and requirements. Policies and regulations must continue to protect values, such as competition and consumer rights, without impeding innovation and economic opportunities. Additionally, greater responsibilities are being placed on regulators to address areas of concern like cybersecurity, privacy, and data protection.

Furthermore, the regulatory objectives contained in section 3 of the Act are pertinent to newer forms of telecommunications and broadcasting services, such as OTTs. Promoting competition, fostering investment, and protecting consumers remain key mandates of the Authority in this era of digital transformation. As ITU and the World Bank note, "the regulator's traditional areas of responsibilities and institutional design are expected to largely continue in the digital environment." The form such regulatory activity takes should, however, be more flexible and the regulators' mandates and roles may need to be amended to fully capture the new digital realities (ITU and the World Bank, 2020).

5.1 The Authority's Definition of OTTs

Considering the definitions presented in section 2, the Authority will adopt a definition of OTTs that integrates the varying perspectives, focusing on both the functional and competitive aspects of these services.

Specifically, the Authority defines OTTs as services accessed by the public via the Internet that may serve as a full or partial substitute for, and/or may compete with, a public telecommunications and/or broadcasting service.

Policy Statement on OTTs (Definition of OTTs)

1. *The Authority defines OTTs as services accessed by the public via the Internet that may serve as a full or partial substitute for, and/or may compete with, a public telecommunications and/or broadcasting service.*

5.2 Classifications of OTTs

Pursuant to section 18 (1) (b) of the Act, the Authority has the power to classify telecommunications networks and services as public telecommunications networks, public telecommunications services, closed user group services, private telecommunications services, value added services, broadcasting services or any other type of telecommunications service.

5.2.1 Criteria for Determining an OTT Service as a Telecommunications Service

The Act defines a public telecommunications service as a telecommunications service, including a public telephone service, offered to members of the general public, whereby one user can communicate with any other user in real time, regardless of the technology used to provide such service.

The Authority shall assess if an OTT service or a class of OTTs (that is, OTTs with similar features) meets the following criteria listed in the Act's definition of a public telecommunications service:

1. The service must use telecommunications[36].

2. The mode of telecommunications used must allow users to communicate with any other user in real time[37].

3. The service must be offered to members of the general public[38].

The Authority shall also assess the provisions in the existing legislative framework to determine the appropriate classification of OTTs. This entails an assessment of the extent to which the rights and obligations contained in this Framework can reasonably apply to the particular OTT or class of OTTs in question. Specifically, the Authority shall examine, inter alia, provisions within section 22 of the Act, which contains conditions applicable to all concessions; section 24, which relates to conditions applicable to a concession for a public telecommunications network or service; section

[36] The Act defines telecommunications as follows: "includes the transmission, emission or reception of signals, writing, pulses, images, sounds or other intelligence of any kind by wire, wireless, optical or electromagnetic spectrum or by way of any other technology". Part of the Authority's assessment shall include a determination of the Internet as a form of telecommunications.

[37] Real-time communication (RTC) is the near simultaneous exchange of information over any type of telecommunications service from the sender to the receiver in a connection with negligible latency (SearchUnified Communications, 2020).

[38] Refers to all the people of an area, country (Merriam-Webster)

25, which relates to interconnection; section 26, which concerns access to facilities; section 28, which relates to universal services; and section 29, which addresses price regulation. Sections A and C of the Concession shall also be assessed. Consideration shall be given to, inter alia, areas such as anti-competitive conducts, QoS, consumer rights, interconnection, access to facilities, and universal service obligations.

5.2.2 Criteria for Determining an OTT Service as a Broadcasting Service

The Act defines a broadcasting service as follows:

> Broadcasting service means the offering of the transmission of programmes whether or not encrypted, by any means of telecommunications, for reception by the general public, including sound, radio, television and other types of transmissions, such as those on a point to multipoint basis.

The Authority shall assess whether an OTT service or class of OTTs meets the following three criteria listed in the Act's definition of a broadcasting service:

1. The service must offer the transmission[39] of programmes[40, 41].

2. The service must be delivered via the use of telecommunications.

3. The service must be offered for reception by the general public.

The Authority shall also assess the provisions in the existing legislative framework to determine the appropriate classification of OTTs. This entails an assessment of the extent to which the rights and obligations contained in the Act and detailed in sections A and D of the Concession can reasonably apply to the particular OTT or class of OTTs in question.

Specifically, the Authority shall examine, inter alia, provisions within section 22 of the Act, which entails conditions applicable to all concessions, and section 23, which relates to conditions applicable to a concession for a public telecommunications network or service. Sections A and D of the Concession shall also be assessed. Consideration shall be given to, inter alia, areas such as

[39] ITU defines transmission as "the transfer of information from one point to one or more other points by means of signals".

[40] Concession D3 states that "the programming transmitted by broadcasting services may include information, entertainment, advertisements, announcement or any other material as the concessionaire may determine in compliance with this concession".

[41] Whether or not encrypted

advertising and announcements, intellectual property rights (IPR), content regulation, and consumer rights.

5.2.3 Assessment and Classification of OTT Telecommunications and Broadcasting Services

Based on the results of its assessment, as described in section 5.2.1 and 5.2.2, the Authority shall then make a determination on whether an OTT service, or class of services, can be classified as either a telecommunications service or a broadcasting service requiring authorisation, in accordance with section 21 of the Act.

This exercise will commence in the 2024/25 financial year, with the aim of completing it within one year. However, should unforeseen circumstances arise, the Authority may extend this timeline to ensure a thorough and accurate evaluation. The Authority shall publish an assessment document that presents its findings. The document shall include a detailed analysis of the OTTs under review, including their alignment with the criteria for telecommunications services under the Act.

5.3 Authorisation of OTTs

Section 21 of the Act requires a person who provides a public telecommunications or broadcasting service to apply for approval in a manner prescribed by the Authority. The Authority evaluates and recommends the award of a concession, in accordance with the relevant classification identified in its Authorisation Framework.

Currently, the provision of a public telecommunications service and a broadcasting service requires a service-based concession, in the form of a type 4 and 5 Concession, respectively. The Authorisation Framework also addresses a concession regime for classes of concessionaires that warrant a lighter regulatory framework. The Authority shall consider the principle of proportionate regulation and the extent to which OTTs classified under sections 5.2.2 and 5.2.4 of this Framework can pragmatically be regulated under a general authorisation regime.

Upon completion of its determination on OTTs, the Authority will review its Authorisation Framework to introduce new classifications for OTT telecommunications and broadcasting services, if and where applicable.

Policy Statements on OTTs (Classifications and Authorisation)

2. *The Authority shall assess whether an OTT service (or class of OTTs) meets the criteria of a public telecommunications or a broadcasting service.*

3. *Based on its assessment, the Authority shall make a determination on whether the OTT service, or class of services, can classified as a telecommunications or broadcasting service requiring authorisation, in accordance with section 21 of the Act.*

4. *The assessment will commence in the 2024/25 financial year, with the aim of completion within one year of commencement.*

5. *Upon completion of its determination on OTTs, the Authority will review and conduct public consultations on its Authorisation Framework regarding the introduction of new classifications for OTT telecommunications and broadcasting services, if and where applicable.*

5.4 Consumer Protection and Data Privacy

Governments across the world have increasingly taken a human rights-based approach to consumer protection and data privacy. Privacy is a fundamental human right which underpins key values such as freedom of association and freedom of expression. This justification for regulatory intervention is certainly no less valid for Trinidad and Tobago, especially in light of the increasing monetisation of personal data by OTT providers in other jurisdictions.

Globally, regulatory interventions, as they pertain to the consumer, have been driven by the non-economic rationale of supporting individual well-being aimed at mitigating problems involving child pornography, cyberbullying, the sale of personal data, data breaches, and many other online threats. Some of the broad regulatory interventions include legislated notice and take down; transparency reporting; complaints mechanisms; co-regulation; education and digital literacy initiatives; criminalising specific types of online content; filtering/ISP level blocking; and duty of care obligations have been employed in other jurisdictions.

The Authority has a statutory responsibility to encourage service providers to be more proactive in protecting their customers and responding to safety risks with their services. As such, pursuant to section 3(c) of the Act, the relevant policies and regulations will be applied in areas pertinent to OTTs, to promote and protect the interests of consumers.

Policy Statements on OTTs (Consumer Protection)

6. *Pursuant to section 3 (c) of the Act, the relevant policies and regulations will be applied in areas pertinent to OTTs, to promote and protect the interests of consumers, where applicable.*

7. *The Authority shall undertake consumer awareness campaigns to promote the safe and secure use of OTTs.*

5.5 Adapting Legislative and Regulatory Frameworks to Support Technological Convergence and Innovation

Technological and market evolution have significantly impacted the telecommunications and broadcasting sectors, necessitating ongoing reforms in their governing legislative frameworks. While the existing legislative framework in Trinidad and Tobago currently encompasses OTT telecommunications and broadcasting services, the increasing convergence of these sectors underscores the potential need for future updates to both legislative and regulatory frameworks, to ensure the sectors keep pace as advancements occur.

The Authority is steadfast in its commitment to aligning its legislative and regulatory frameworks with the realities of new and emerging services. By actively monitoring industry developments and technological trends, the Authority will maintain effective oversight, foster innovation, and support the sustained growth and evolution of the telecommunications and broadcasting sectors in Trinidad and Tobago.

Policy Statement on OTTs (Legislative and Regulatory Frameworks Amendments)

8. *As markets evolve, the Authority will continue to make relevant recommendations to align its legislative and regulatory frameworks keep pace with new technology and emerging services.*

5.6 OTT Broadcasting Content

The Authority is tasked with guiding the development of the broadcasting sector in a manner that safeguards, enriches, and strengthens the national, social, cultural, and economic well-being of

society. The Act requires that the Authority regulate the provision of broadcasting services in a manner consistent with sections 4 and 5 of the Constitution.

Similarly, Schedule H of the concession sets forth the standards for broadcasting services, emphasising the protection of vulnerable audiences such as children; prohibiting harmful, abusive, or discriminatory content; and ensuring fairness and accuracy in news reporting and election coverage. It also addresses respecting individual privacy, maintaining content integrity, and enforcing clear boundaries between advertising and programming. To ensure consumers remain adequately protected across all platforms, the Authority shall extend relevant concession conditions on broadcasting content to providers of OTT broadcasting services, if and where applicable.

Policy Statement on OTTs (Broadcasting Content)

9. *To ensure consumers are adequately protected across all platforms, the Authority shall extend relevant concession conditions on broadcasting content to providers of OTT broadcasting services, if and where applicable.*

6 Strategy 2: Recommendations on Jurisdictional Challenges– Regional Harmonisation

The globalisation of markets and sectoral convergence have necessitated greater international and inter-governmental cooperation and collaboration. As ITU notes, this is integral to ensuring that regulatory frameworks can adapt and respond to emerging regulatory challenges (ITU, 2022).

A notable challenge facing regulators is the transnational nature of OTTs. Regulators must address the fact that, while OTTs are accessed within their jurisdictions, the providers are often domiciled beyond national borders. As ITU notes, transnational digital platforms often use base erosion and profit shifting (BEPS) practices that enable taxes to be paid in low-tax jurisdictions rather than where economic activity occurs (ITU and the World Bank, 2020).

Another ITU report highlights the challenge of imposing equitable and harmonised taxation regimes and other rules on global online service providers, especially for smaller states (ITU, 2018). The report recommends "an approach of continuing to monitor and putting in place legislative mechanisms and international co-operative forums so regulators have the ability to further regulate online services (even if they currently choose not to)". This includes strategies such as facilitating the partnering between online service providers and network operators, and putting in place fair and equitable taxation arrangements. It also involves establishing regional agreements among countries, so that joint action can be taken at that level, thereby enhancing the negotiation and enforcement capacity of each state.

Further, a Working Group report for the Broadband Commission for Sustainable Development highlighted ongoing reform efforts by the OECD to address the jurisdictional challenges of multinational companies earning revenues in countries where they do not have a physical presence. This includes efforts to "correlate, fairly and reasonably, value capture per jurisdiction with the appropriate taxation to apportion to that territory" (The Working Group for 21st Century Financing and Funding Models for Sustainable Broadband, 2021).

As with other small states, Trinidad and Tobago may face limitations in establishing regulatory structures for multinational OTT providers. On its own, the market size may be too small to offer significant incentives for OTT providers to retain their services in the country following authorisation requirements.

Through regional harmonisation, regulators can align their policies and create a unified regulatory framework that strengthens their bargaining powers with multinational OTT providers. Specifically, Trinidad and Tobago can leverage its membership in the Caribbean Community

(CARICOM) and the CARICOM Single ICT Space[42, 43], to establish a regional approach to the regulatory oversight of transnational OTTs. The vision and roadmap for this initiative have identified the need for such harmonisation throughout the region. This will entail amendments to national policies, to take account of both technological and regulatory developments, and the identification and resolution of policy and institutional inconsistencies among the jurisdictions of Member States (CTU Secretariat, 2017).

Additionally, ITU has recommended that national regulatory authorities (NRAs) collaborate with each other and with competition authorities to ensure consistent and effective regulation of digital platforms (ITU and the World Bank, 2020). The Authority will continue its work with regional and international bodies such as the Caribbean Telecommunications Union (CTU), the Inter-American Telecommunications Commission (CITEL) and ITU to develop coordinated and consistent regulatory strategies.

In addition to international collaboration, the thrust towards digitalisation calls for increased cross-sectoral collaboration, for example, across ministries and various national regulatory agencies. The Authority acknowledges the importance of regulatory collaboration with relevant agencies in formulating and implementing policies for digital services such as OTTs. Where applicable, the Authority shall establish collaborative initiatives with other local, regional and regional regulatory bodies to pursue mutual interests with respect to OTT authorisation and regulation and offer support where required.

The Authority recognises that regional harmonisation presents significant opportunities to enhance regulatory oversight and strengthen negotiating power with multinational OTT providers. It also notes the importance of advancing efforts proactively, to ensure direct benefits for all stakeholders in Trinidad and Tobago. This balanced approach ensures that, while pursuing regional collaboration, the Authority remains committed to developing and implementing a robust regulatory framework tailored to the specific needs of the local market and capable of addressing the unique challenges posed by digitalisation.

[42] CARICOM Vision and Roadmap for a Single ICT Space: https://caricom.org/wp-content/uploads/vision_and_roadmap_for_a_single_ict_space_-_final_version_updated.pdf

[43] The CARICOM Single ICT Space is an ecosystem of regionally harmonised ICT policies, legislation, regulations, technical standards, best practices, networks and services.

Policy Statements on OTTs (Local, Regional, and International Collaboration)

10. *The Authority will continue to collaborate with regional and international bodies to develop a harmonised and coordinated strategy with the most suitable arrangements for the relevant players in the online space.*

11. *The Authority shall also continue to advance efforts, to ensure direct benefits for all stakeholders in Trinidad and Tobago.*

7 Strategy 3: Recommendations on OTT Contributions– Fostering OTT Investment in the Development of Digital Infrastructure and Local Content in Trinidad and Tobago

Pursuant to 3 (f) of the Act, the Authority recognises the need for regulatory strategies to attract alternative sources of investment in the region. Attention will therefore be placed on OTTs who are responsible for the vast majority of broadband utilisation and who greatly impact the telecommunications and broadcasting markets in Trinidad and Tobago.

7.1 Recommendations on OTT Investment in Infrastructure in Trinidad and Tobago

Recognising global trends towards promoting OTT investments in local telecommunications infrastructure, the Authority is committed to developing a strategy tailored to the unique needs of Trinidad and Tobago. The Authority shall conduct a comprehensive study of potential strategies for OTT investment in local infrastructure. This study will explore models such as fair share arrangements, universal service funding contributions, and other innovative approaches that could be applicable to the Trinidad and Tobago context. The study will commence following the completion of the determination on OTTs, with the goal of concluding within one year.

Policy Statements on OTTs (Infrastructure Investment Models)

12. *The Authority shall conduct a comprehensive study to evaluate potential strategies for OTT investment in local infrastructure. This study will explore models such as fair share arrangements, universal service funding contributions, and other innovative approaches that could be applicable to the Trinidad and Tobago context.*

13. *The study will commence following the completion of the determination on OTTs, with the goal of concluding within one year.*

7.2 Recommendations on Local Content Development

The rationale for regulatory intervention in this area is both economic and non-economic in nature. It includes reflecting community values (by ensuring the continued production of local content) and increasing the global competitiveness of domestic cultural products.

In this regard, the Authority will continue to monitor global trends in OTTs' contribution to local content and development, inter alia. It shall examine the feasibility of one or a mix of the following strategies for promoting local content:

1. **Establishment of a quota on share of local content:** This relates to targets on the volume or percentage of local content that is made available on an OTT's catalogue of programmes. This investment model supports the industry by driving up demand for local content productions.

2. **Requirements for direct investment:** This includes obligations on an OTT provider to directly invest in local content initiatives for example through productions, co-productions or other forms of investment.

3. **Requirements for indirect investment**: This may be done through levies or OTT investment in a local content fund.

The Authority shall establish the criteria for identifying local content and assess the readiness of the local content market to support strategies, such as those outlined in 1–3 above. The Authority shall also report on specific policy objectives for local content and legislative amendments, where applicable, to achieve these objectives.

Additionally, where applicable, the Authority shall collaborate with the relevant agencies responsible for the oversight of local content creation and promotion in Trinidad and Tobago.

Policy Statements on OTTs (Local Content Development)

14. *The Authority will continue to monitor global trends in OTTs' contribution to local content and its development.*

15. *The Authority will examine one, or a mix, of strategies for promoting local content, including, but not limited to:*

    a) *conducting a feasibility study in the first instance.*

    b) *utilising a partnership approach with OTT providers to stimulate digital content development and investment.*

16. *Where applicable, the Authority shall collaborate with the relevant agencies responsible for the oversight of local content creation and promotion in Trinidad and Tobago.*

7.3 Collaborative Framework for OTTs and TSPs

Recognising that network operators and OTTs are part of the international telecommunications/ ICT ecosystem, ITU has issued a Recommendation that "encourages relevant stakeholders to work towards an enabling regulatory environment that supports and encourages the development of innovative business models in line with the advancement of technology and innovations" (ITU, 2020).

Considering the benefits of OTTs and the opportunities that exist for OTTs and TSPs to collaborate (see section 3.3), it is important that the Authority's regulatory framework creates an enabling environment for fair commercial interactions between the two parties. Attendant policies and regulations on OTTs, if and where applicable, shall align with ITU's recommendations, which states that Member States should:

1. support and encourage the development of innovative business models, in line with the advancement of technology and innovation.

2. not inhibit markets and ensure a competitive landscape is assured for the benefit of consumers.

3. grant telecommunications network operators the adaptability and flexibility to adopt relevant and innovative business models, such as the transition to data-centric, end-user tariff structures, to reduce dependence on revenues from traditional telecommunications services.

4. permit telecommunications network operators to offer their own OTT applications without subjecting them to legacy telecommunications regulations, as long as those applications, as well as underlying broadband Internet access services, are offered in a manner that does not put at a disadvantage, or discriminate against, competitive alternatives.

5. enable voluntary commercial arrangements among telecommunications network operators and providers of OTT applications, so as to allow each to invest in Internet infrastructure, without subjecting the parties to traditional telecommunications regulatory requirements.

Additionally, ITU recommends that Member States take specific measures to promote mutual cooperation, as far as practical, between providers of OTTs and telecommunications network operators.

While there are existing collaborative initiatives between OTT providers and TSPs globally and locally, there are growing needs and opportunities for additional partnerships. The Authority shall continue to support collaborative initiatives between TSPs and OTT providers, guided by ITU recommendations, which encourage member states to conduct analyses on the competition impacts of such arrangements, including transparency, non-discriminatory conditions, innovation, and consumer benefits.

Countries have regulated areas where clear market issues exist. For example, the case studies in section 4 of this Framework show that countries are responding to situations where OTT providers benefit from network operators' infrastructure in which the OTT providers have provided very limited to no investment in that network. In the Caribbean region, the growing presence of OTTs offers new opportunities but also raises important considerations for balancing competition and infrastructure development. OTT providers using telecommunications infrastructure with limited investment in its upkeep could potentially limit network development, as operators may need to redirect funds to support growing broadband demand. To address this, the Caribbean may benefit from adopting a collaborative approach with OTT providers and other stakeholders geared towards maintaining and enhancing the sustainability of network infrastructure.

Policy Statements on OTTs (Collaborative Framework for OTT Providers and TSPs)

17. *Attendant policies and regulations on OTTs, if and where applicable, shall align with ITU's recommendation of establishing an enabling environment that ensures fair commercial interactions and collaboration between telecommunications service providers (TSPs) and OTT providers.*

18. *The Authority shall continue to support collaborative initiatives between TSPs and OTT providers, guided by ITU recommendations, which encourage member states to conduct analyses on the competition impacts of such arrangements, including transparency, non-discriminatory conditions, innovation, and consumer benefits*

19. *The Authority recognises the value of adopting a fair, consistent and non-discriminatory approach to OTTs, regardless of the residence or current authorisation status of the OTT provider.*

8 Next Steps

Going forward, the Authority's plans regarding OTTs will entail:

1. **Assessment and determination**: The Authority will undertake a thorough assessment to determine whether a particular OTT, or a class of OTT, qualifies as a public telecommunications or broadcasting service. Based on this assessment, the Authority will classify the OTT, accordingly, ensuring compliance with section 21 of the Act, if and where applicable.

2. **Review and update of the Authorisation Framework**: Following the completion of the assessment and determination on OTT services, the Authority will review its existing Authorisation Framework. The review will focus on introducing new classifications for OTT telecommunications and broadcasting services, where necessary, to ensure that regulatory measures align with the evolving digital landscape.

3. **Application of relevant policies and regulations**: In line with section 3(c) of the Act, the Authority will apply relevant policies and regulations to areas pertinent to OTTs, where applicable, with particular emphasis on promoting and protecting consumer interests.

4. **Consumer awareness campaigns**: The Authority will continue its consumer awareness campaigns aimed at educating the public on the safe and secure use of OTTs. These campaigns will be an ongoing effort to ensure that consumers are informed and protected in the digital environment.

5. **Alignment with legislative and regulatory frameworks**: As the market continues to evolve, the Authority remains committed to adapting its legislative and regulatory frameworks, as required.

6. **Addressing jurisdictional challenges**: The Authority recognises the jurisdictional challenges posed by OTT service providers and will continue to collaborate with regional and international bodies to develop a harmonised and coordinated strategy that includes the most suitable arrangements for players in the online space.

7. **Comprehensive study on OTT investment strategies**: The Authority will conduct a comprehensive study to evaluate potential strategies for OTT investment in local infrastructure. The study will explore models such as fair share arrangements, universal service funding contributions, and other innovative approaches relevant to the Trinidad and Tobago context. This study will be initiated following the completion of the determination on OTTs and is expected to be finished by the 2025/26 financial year.

8. **Promotion of local content development**: The Authority will continue to monitor global trends in OTT service providers' contributions to local content and development. It will also examine various strategies for promoting local content, starting with a feasibility study and potentially utilising partnerships with OTT providers to stimulate digital content development and investment.

9. **Support for collaborative initiatives**: The Authority will continue to support present and future collaborative initiatives between TSPs and OTT providers. These collaborations will be guided by the principle of net neutrality.

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