

FRAMEWORK ON NET NEUTRALITY IN TRINIDAD AND TOBAGO

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Terms and Definitions¹

- 1. **Altering** involves modifying or manipulating Internet traffic in ways that affect its original form.
- 2. **Blocking** refers to the practice where an Internet service provider (ISP) intentionally prevents or restricts users from accessing certain websites, services, or types of content. Blocking can occur for legitimate traffic management purposes, or for harmful reasons, such as restricting access to competitors' services. When implemented for such harmful purposes, blocking undermines the principle of net neutrality.
- 3. Conditional paid prioritisation is a commercial practice involving the offering of specialised services other than general Internet access services, optimised for specific content, applications or online services, where such optimisation is necessary to meet specific QoS standards. This offering may be done in exchange for consideration, monetary or otherwise.
- 4. **Deep packet inspection** (DPI) refers to a method of examining the full content of data packets as they traverse a monitored network checkpoint.
- 5. **Degrading** occurs when ISPs intentionally reduce the quality of Internet services or content.
- 6. **Discrimination** refers to any differentiation in the treatment of Internet traffic based on factors such as content, source or destination.
- 7. **Domain Name System** (DNS) is a distributed hierarchical system that is used on the Internet to translate between domain names and Internet protocol (IP) addresses and other identifiers such as telephone numbers, e-mail addresses, instant messenger identifiers, amongst others.
- 8. **Edge providers** are entities that provide content, applications and services that are accessed over the Internet.
- 9. **Fair practices** are those that do not have the purpose or effect of preventing or substantially restricting or distorting competition in the telecommunications and broadcasting markets. They also include the fair treatment of consumers and service providers similarly situated.

¹ For more details on the terms and key concepts used in this Framework, please refer to the *Discussion Paper on Net Neutrality and Over-the-Top (OTT) Services in Trinidad and Tobago*, available at: https://tatt.org.tt/wp-content/uploads/2023/05/DownloadableDocuments-23.pdf

- 10. **Interference** encompasses any action by ISPs that disrupts the normal flow of Internet traffic. Interference can take various forms, such as blocking peer-to-peer file sharing, interfering with encrypted connections, or prioritising certain services over others.
- 11. **Lawful traffic** refers to network traffic that does not contravene any laws of Trinidad and Tobago, or court orders.
- 12. **Next generation network** (NGN) refers to a packet-based network able to provide telecommunication services and able to make use of multiple broadband, QoS-enabled transport technologies and in which service-related functions are independent from underlying transport-related technologies.
- 13. **Non-discrimination** requires that all data packets be transmitted according to the same rules, unless differentiation is objectively justified for a technical network management purpose.
- 14. **Paid prioritisation** is the practice that allows ISPs to offer preferential treatment or prioritised delivery to an edge provider's traffic in exchange for consideration, monetary or otherwise.
- 15. **Proportionality** means the practice or measure should be geared towards addressing a specific and legitimate technical need, required for efficient network performance and the optimisation of overall transmission quality thereby ensuring that traffic management measures are appropriate and not excessive.
- 16. **Quality of experience** (QoE) is defined as the overall acceptability of an application or service, as perceived subjectively by the end-user.
- 17. **Quality of service** (QoS) is defined as the collective effect of performance which determines the degree of satisfaction of an end-user of the service.
- 18. **Readily available information** refers to the up-to-date information collected by providers as part of their normal business operations and information which may be routinely collected by the Authority.
- 19. **Reasonable traffic management** practices are those required to preserve network security and integrity; mitigate the effects of temporary and exceptional traffic congestion; prioritise emergency services; or enforce court orders or legal provisions or requirements.

- 20. **Restricting** refers to the imposing of limitations on specific types of Internet traffic. ISPs may restrict access to certain websites, protocols, or services, based on their own policies or agreements.
- 21. **Similarly situated** refers to one class of persons being categorised as alike in all relevant ways to another class for the purposes of a particular decision or issue.
- 22. **Throttling** is the deliberate slowing of available bandwidth by an ISP or network operator, i.e., an intentional lowering of the speed that is typically available over an Internet connection.
- 23. **Traffic discrimination** refers to the practice of treating different types of Internet traffic unequally, often based on factors such as content, source, destination, or application. This discrimination can take various forms, including blocking, throttling, or prioritising certain types of traffic over others.
- 24. **Traffic management** involves simple and complex technical solutions, practices and measures used to analyse, classify and forward traffic in the network.
- 25. **Transiency** means the practice should not be maintained for longer than is necessary to resolve the issue at hand.
- 26. **Transparency** requires ISPs to be open about their management practices, performance, and commercial terms thereby ensuring that end users are broadly informed of the traffic management policies adopted by an ISP, thus allowing them to make educated choices.
- 27. **Unreasonable Discriminatory conduct** refers to any action by an ISP that unfairly favours or disfavours certain applications, services, or content over others. It involves the unequal treatment of traffic, which impairs end users' ability to access or distribute lawful content, applications or services over the Internet.
- 28. **Voice over Internet Protocol** (VoIP) is a cross-sector convergence technology that utilises packet-switched networks over the Internet to make voice telephone calls.
- 29. **Zero-rating** allows subscribers to access certain online content (e.g., a website or application) "for free", that is, without having the data counted against their usage (Eisenach, 2015).

1 Introduction

1.1 Background

"Net neutrality" is widely recognised as a principle requiring Internet service providers (ISPs) to handle all Internet traffic equally, without discrimination, restriction, or interference, except as mandated by law. The International Telecommunication Union (ITU)² notes that net neutrality involves policies that affect how end users and providers use and manage telecommunications networks, as well as the prevention of anti-competitive discrimination (Nolasco, 2015).

Proponents of net neutrality advocate prohibiting discrimination against particular content or applications, to protect consumer rights and innovation (Schewic, 2007). In the absence of net neutrality, the adoption of certain policies and practices may undermine the benefits to be derived from an open Internet, where consumers can freely access and distribute information. On the other hand, to ensure the orderly development and sustainability of the telecommunications sector, it is imperative that network operators have incentives to invest and the freedom to employ traffic management measures for the optimal operation of their networks.

A carefully considered regulatory framework is required for ensuring the delicate balance between promoting the interest of consumers with respect to the quality and variety of broadband services available and encouraging investment in broadband infrastructure³. Additionally, a net neutrality policy acts as a safeguard against market failure and anti-competitive practices, by promoting the equal treatment of traffic. This fosters a competitive environment where innovation can thrive and consumers have access to a wide range of services and content.

The Telecommunications Authority of Trinidad and Tobago (the Authority) first addressed the topic of net neutrality in 2015, in its consultative document, *Towards the Treatment of Over-the-Top (OTT) Services in Trinidad and Tobago*. That document explored the concept of OTTs and, in particular, examined the interaction between the markets in which OTT service providers and authorised providers operate in Trinidad and Tobago. In reviewing the feedback received through the public consultation on that document, the Authority noted that many of the comments were heavily focused on the issue of net neutrality. The Authority therefore took the decision to revise the document, to include a more comprehensive discussion on OTTs and the principle of net neutrality.

² The ITU is the United Nations specialised agency for information and communications technologies (ICTs).

³ See section 3 of the Act, Objects of the Act: https://tatt.org.tt/wp-content/uploads/2023/01/Telecommunications-Act-Chap.-47.31-2022.pdf

In July 2018, the Authority began public stakeholder discussions on net neutrality and OTT regulation in its expanded consultative document titled, *Discussion Paper on Net Neutrality and OTT Services in Trinidad and Tobago* (the Discussion Paper)⁴. While both topics were addressed within the Discussion Paper, the document partitioned the discussions on net neutrality and OTT regulation, with the former contained in sections 1–8 and the latter exclusively addressed in section 9.

In October 2021, the Authority published the decisions on recommendations (DORs) and version 0.2 of the Discussion Paper for a single round of consultation. Based on the feedback received, and considering the dynamism of the industry, the Authority indicated in the Discussion Paper that future consultations on the two topics would continue in separate frameworks.

In March 2022, the Authority published for the first round of consultation the *Framework on Net Neutrality in Trinidad and Tobago*⁵ (the Framework). In August 2023, the *Framework on Overthe-Top Services (OTTs) in Trinidad and Tobago*⁶ was also published for the second round of consultation.

In August 2024, the Framework was issued for the second round of consultation and the DORs from the first round of consultation was also published by the Authority.

In addition to engaging in extensive consultation on the topic, the Authority conducted comprehensive assessments on the market dynamics, including analysing the evolving trends within the telecommunications sector. This aligns with the Authority's commitment to creating a Framework that is relevant and fit for purpose, thereby ensuring that the regulatory framework remains responsive to the current market environment and meets the expectations of stakeholders, while fostering a balanced and competitive telecommunications ecosystem.

1.2 Purpose

The purpose of this *Framework on Net Neutrality in Trinidad and Tobago* (the Framework) is to outline the Authority's policy positions on net neutrality. These positions will guide the Authority's approach to assessing ISPs' traffic management practices and related commercial

⁴ Discussion Paper on Net Neutrality and OTT Services in Trinidad and Tobago: https://tatt.org.tt/wp-content/uploads/2023/05/DownloadableDocuments-23.pdf

⁵ Framework on Net Neutrality in Trinidad and Tobago (March 2022): https://tatt.org.tt/wp-content/uploads/2024/04/Framework-on-Net-Neutrality.pdf

⁶ Framework on Over-the-Top Services (OTTs) in Trinidad and Tobago (August 2022): https://tatt.org.tt/wp-content/uploads/2023/05/Framework-on-OTTs-Ed.pdf

practices, such as zero-rating and paid prioritisation. The policy aims to foster innovation, protect the interests of consumers (in relation to their quality of broadband experience), promote fair competition in the delivery of telecommunications services and allow investment in the sector to thrive.

1.3 Objectives

This Framework:

- 1. presents the policy considerations for net neutrality which are aimed at promoting and protecting the interests of stakeholders.
- 2. outlines the Authority's policy directions that will guide net neutrality practices in Trinidad and Tobago.
- 3. presents a strategy for ensuring the net neutrality principle is adhered to amidst evolving developments in the sector, in accordance with the Authority's statutory mandate and responsibilities.
- 4. describes the Authority's approach to monitoring, assessing and remedying net neutrality infringements in Trinidad and Tobago.

1.4 Scope

This Framework promotes the equal and non-discriminatory treatment of network traffic and related commercial practices. It focuses on three main tenets of net neutrality: reasonable traffic management, non-discrimination, and transparency. It outlines the Authority's policy and strategy for advancing the principle of net neutrality in Trinidad and Tobago and its approach for assessing and addressing discriminatory practices by ISPs that may infringe on consumer rights and restrict competition. Additionally, the Framework includes policy statements regarding ISPs' disclosure of network-related and commercial practices, in accordance with the Telecommunications Act, Chap. 47:31 (the Act) and their concession agreement.

1.5 Relevant Legislation and Regulatory Instruments

In executing its strategic and operational duties, the Authority is governed by its legal and regulatory framework, which comprises, inter alia, the following two instruments:

1. The Telecommunications Act, Chap. 47:31 (the Act)⁷

Section 3 lays out the objects of the Act, which include, inter alia, establishing conditions for fair competition at the national and international levels; facilitating the orderly development of a telecommunications system; protecting the interests of the public; promoting universal access to telecommunications services; and encouraging investment in, and the use of, telecommunications infrastructure to provide telecommunications services.

Section 18 (1) outlines the functions and powers of the Authority, which include monitoring and ensuring compliance with concession conditions; establishing national telecommunications standards and technical standards; and ensuring the orderly and systematic development of telecommunications throughout Trinidad and Tobago.

Pursuant to section 18 (3), the Authority shall have regard to the interests of consumers, particularly in relation to the quality and reliability of the service provided; ensure the fair treatment of consumers and service providers similarly situated and monitor for non-discrimination by ISPs regarding access, pricing and quality of service.

Section 22 (1) (b) states that every concession for a public telecommunications network, a public telecommunications service or a broadcasting service shall prohibit anti-competitive pricing and other related practices.

Section 24 (1) states that a concession shall require the concessionaire to adhere, where applicable, to conditions requiring the concessionaire to:

a) submit to the Authority plans for its approval respecting— (i) the development of its network or service; (ii) quality of service; and (iii) any other related matter as the Authority may require;

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⁷ Telecommunications Act, Chap. 47:31: https://tatt.org.tt/wp-content/uploads/2023/01/Telecommunications-Act-Chap.-47.31-2022.pdf

- b) provide users, under conditions which are published or are otherwise filed with the Authority, with access to and the opportunity to use such network or service on a fair and reasonable basis, and without discrimination among similarly situated users;
- c) meet prescribed standards of quality.

Section 65 (d) states that "[a] person who obstructs or interferes with the sending, transmission, delivery or reception of any communication" commits and offence.

2. Concession for the Operation of a Public Telecommunications Network and/or Provision of Public Telecommunications Services and/or Broadcasting Services

Concession condition A21 states: "The concessionaire shall not engage in conduct which has the purpose or effect of preventing or substantially restricting or distorting competition in any telecommunications or broadcasting markets or interfering with the operation of networks or the provision of services by any of its competitors".

Concession condition A22 provides: "The concessionaire shall not enter into any agreement, arrangement or understanding which has or is likely to have the purpose or effect of preventing or substantially restricting or distorting competition in any market for the provision or acquisition of any networks, services or equipment".

According to A28: "The concessionaire shall furnish to the Authority, in such manner and at such times as the Authority may reasonably direct, either in writing or by a general notice published by the Authority, such information related to the activities of the concessionaire under this Concession, including but not limited to network or service development plans, financial, technical and statistical information, accounts, service performance metrics and other records, as the Authority may reasonably require in order to perform its functions".

A44 states: "Without prejudice to any quality of service regulations to be developed by the Authority, and until such regulations are promulgated, the concessionaire is obliged within six (6) months of the Date of Commencement to meet the quality of service benchmarks as specified in Schedule F, according to the terms therein".

A45 states: "Without prejudice to any quality of service regulations to be developed by the Authority, and until such regulations are promulgated, the concessionaire shall within six (6) months of the Date of Commencement publish in accordance with this section A, the appropriate performance indices specified in Schedule F".

A53 states "The concessionaire shall publish and make available at all times such information as reasonably determined from time to time by the Authority as necessary to inform the public

of the operation of its networks and/or provision of all of its services provided in relation to the Authorisations contained in this Concession".

C15 states: "The concessionaire shall not discriminate among similarly situated consumers, and shall comply with any regulations and directions lawfully made by the Authority in relation to the rights of consumers".

These legislative and regulatory provisions inform the Authority's policy positions and guidance on reasonable traffic management, non-discriminatory network and related commercial practices, and transparency in Internet access service offerings.

1.6 Other Relevant Documents⁸

Other relevant policies, plans and regulations that inform 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)

1.7 Review Cycle

This Framework will be revised periodically to address changing and unforeseen circumstances. To ensure the effectiveness of the Framework, the Authority will continually assess its impact through ongoing market monitoring and update the Framework as necessary, but no later than five years from the date of the publication of the Framework. Any modifications will be made in consultation with stakeholders to ensure alignment with appropriate industry imperatives, national plans and policies.

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

⁸ These documents can be found in the Authority's website.

1.8 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 2024, version 0.4 of this Framework was released for the second of two rounds of public consultation for a period of eight weeks. The DORs matrix from the second round of public consultation is attached as Appendix II.

2 Overview of Net Neutrality

Professor Tim Wu, one of the earliest proponents of equal treatment of data, asserted that all content, sites and platforms should be treated equally. He defined net neutrality as "a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application" (Wu, Net Neutrality FAQ, 2006).

Professor Wu, and many other academics, recognised that the term "net neutrality" extends beyond network design. It touches on policy and regulatory strategies aimed at preventing negative consequences of ISPs' conduct that impact other industries and the wider economy. Primarily, net neutrality safeguards the open nature of the Internet, to ensure that competition is preserved, innovation can flourish and consumers have unprecedented access to information (Luca Belli P. D., Net Neutrality Compendium: Human Rights, Free, 2015). Without net neutrality, ISPs could discriminate by employing traffic shaping methods like blocking, throttling, or prioritising specific content or services for commercial gain. Such practices could result in significant distortion in competition.

Even in light of concerns over anti-competitive behaviour by ISPs, Wu acknowledged the need for reasonable traffic management measures to manage bandwidth effectively. Reasonable traffic management practices, which are inherent in Internet protocols, are essential for maintaining the integrity, security, and functionality of networks. These practices encompass a variety of techniques and mechanisms that regulate traffic across a network, to ensure efficient operation and protect against potential threats. Some traffic management mechanisms, however, may entail the use of technologies such as deep packet inspection (DPI) which can be used either for justifiable purposes such as identifying malware, or for anti-competitive traffic discrimination activities. The latter represent a violation of the net neutrality principle, as these actions exceed what is reasonably required to manage the efficiency of a network. Termed in this Framework as "net neutrality interferences", these actions exceed what is reasonably necessary for network efficiency, and encompass traffic discrimination, paid prioritisation, and zero-rating.

Policy intervention plays a pivotal role in safeguarding net neutrality by promoting traffic management practices that do not undermine fair competition or infringe upon consumers' right to an open and fair Internet.

3 Rationale for Net Neutrality in Trinidad and Tobago

The rationale for implementing a framework on net neutrality in Trinidad and Tobago is based on the Authority's mandate to protect consumer rights and prevent anti-competitive practices in the telecommunications sector while ensuring an enabling environment for innovation and investment. The Authority underscores the importance of net neutrality in promoting fairness in network practices and ensuring consumers have access to an open and non-discriminatory Internet.

To ensure the Framework is fit for purpose, the Authority has conducted comprehensive assessments of key market dynamics, including market concentration, broadband tariffs, the number of active players in the market, and consumer complaints about quality of service (QoS). These elements provide critical insight into the competitive landscape and the readiness of the market for the type of self-regulation that promotes fairness and consumer protection⁹.

Competition in the broadband sector in Trinidad and Tobago is shaped by factors such as the technological characteristics of services, market concentration and pricing trends. A high concentration of market power among a few dominant players has the potential to limit competition, resulting in higher prices and less innovation. The Herfindahl-Hirschman Index (HHI), a widely used measure of market concentration, has shown that certain broadband market segments show high concentration, which could possibly restrict competition and negatively impact consumers. Moreover, ongoing consumer complaints about broadband QoS and past net neutrality violations (Trinidad Express, 2014)¹⁰ emphasise the need for regulatory oversight. These considerations reinforce the need for a net neutrality framework that ensures fair competition, prevents discriminatory practices, safeguards consumer rights, and fosters an open and inclusive digital environment in Trinidad and Tobago.

The Authority acknowledges the importance of industry-led initiatives and the growing adoption of self-regulation in the telecommunications sector. However, the need for a well-defined net neutrality framework remains essential to preventing anti-competitive behaviour, safeguarding consumer rights, and promoting transparency. While self-regulatory efforts, such as the CANTO Code of Practice on Safeguarding the Open Internet¹¹ (the CANTO Code), provide valuable guidelines for signatories, these initiatives are limited by enforceability challenges and lack the comprehensive mechanisms needed for consistent accountability and oversight. A clear regulatory

⁹ For trends in Internet service prices, see <u>fixed broadband</u> and <u>mobile service</u>

For industry trends and competition metrics, including the HHI, see the Authority's <u>annual market reports</u> and <u>quarterly market reports</u>.

For consumer complaints statistics, see consumer and broadcasting content complaints statistics.

¹⁰ <u>Digicel blocks "unlicensed" VOIP services | Local News | trinidadexpress.com</u>

¹¹ CANTO Code of Practice on Safeguarding the Open Internet: https://www.canto.org/wp-content/uploads/2014/12/20160523-Code-of-Practice-on-Safeguarding-the-Open-Internet-002-1.pdf

framework is necessary to ensure enforceability, accountability, and robust consumer protection, applying uniformly to all ISPs operating in Trinidad and Tobago. Without such a framework, discriminatory practices that undermine competition, such as prioritising certain types of traffic or creating barriers to entry for new market entrants could go unchecked.

The Framework, being prescriptive, outlines the Authority's approach to upholding net neutrality, ensuring all market participants follow clear, enforceable standards. It also establishes parameters for self-regulation, aligning industry efforts, like the CANTO Code, with regulatory principles to prevent anti-competitive behaviour and protect consumers.

4 Policy Considerations for Net Neutrality in Trinidad and Tobago

Section 3 of the Act identifies objects which establish conditions for, inter alia, the promotion of investment in, and the use of, infrastructure; fair competition; and consumer protection. These objectives form the foundation for policy considerations regarding net neutrality in Trinidad and Tobago.

The Authority's policy considerations also include provisions for fostering innovation, which the Government of Trinidad and Tobago has highlighted as a strategy for information and communications technology (ICT) sector development in the National ICT Plan (the ICT Blueprint)¹²

4.1 Promoting Broadband Development and Local Innovation

Section 3 of the Act calls for promoting investment and the use of infrastructure. This object aligns with a key strategic thrust identified in the ICT Blueprint, which is to improve connectivity. This involves initiatives for enhancing ICT infrastructure, specifically through the ubiquitous deployment of next-generation networks (NGNs). According to the ICT Blueprint, "a key aim of this thrust is to facilitate and incentivise private sector investment and market actors to advance the national ICT infrastructure" (Ministry of Public Administration, 2018).

To foster an environment where everyone can stay connected in today's digital era, it is crucial that regulatory actions concerning net neutrality support the industry's sustainability, attract investors, and cultivate digital inclusion. The policy positions outlined in this Framework aim to achieve this by encouraging innovation, investment, and the growth of strong ICT infrastructure.

The Authority's position on net neutrality makes allowances for reasonable traffic management which is required to ensure the efficient operation of networks and the fair allocation of resources (section 5. Additionally, commercial practices, such as provisions like zero-rating and conditional paid prioritisation (section 7) are permitted. These allowances facilitate broadband development by incentivising investment in network infrastructure and innovation in service offerings. For example, zero-rating can drive the increased use of the Internet by providing free access to certain content, thereby expanding Internet access to underserved communities.

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¹² The ICT Blueprint: https://data.gov.tt/dataset/ict-blueprint-national-ict-plan-2018-2022

4.2 Fostering Effective Competition in Trinidad and Tobago

One of the objectives of section 3 of the Act, which guides this Framework, is the establishing of conditions for "an open market for telecommunications services, including conditions for fair competition, at the national and international levels". This Framework is also guided by section 22 (1) (b) of the Act and concession conditions A21 and A22, which address anti-competitive pricing and other related practices and anti-competitive conduct.

The principles of fair competition and net neutrality are closely interconnected. Net neutrality actively supports fair competition by prohibiting unjust discrimination against specific online content or services, thereby ensuring equal access for all Internet users. For instance, if an ISP were to throttle or block access to certain websites or services while favouring others, it would violate the principle of net neutrality and potentially distort competition. Such practices, as described, ultimately undermine the Authority's overarching objective to establish conditions for an open market for telecommunications services, as they create barriers to entry for new competitors and stifle innovation. The motivation behind the proposed net neutrality intervention in Trinidad and Tobago primarily aims to prevent anti-competitive behaviour in network operations and related commercial practices, thus ensuring a level playing field for all participants in the telecommunications market.

In sections 6 and 7, the Authority proposes its policy positions on non-discrimination that address network and commercial practices, respectively, which may amount to anti-competitive behaviour. These aim to ensure that all Internet traffic is treated fairly and without discrimination, in line with the principle of net neutrality.

4.3 Promoting and Protecting the Interests of Consumers

The Authority has a statutory mandate under section 3 of the Act to protect and promote the interests of customers, purchasers and other users of telecommunications services. Additionally, section 18 (3) requires that the Authority, in carrying out its functions, safeguards the interests of consumers, as follows:

In the performance of its functions, the Authority shall have regard to the interests of consumers and in particular—

- (a) to the quality and reliability of the service provided at the lowest possible cost;
- (b) to fair treatment of consumers and service providers similarly situated;
- (c) in respect of consumers similarly placed, to non-discrimination in relation to access, pricing and quality of service.

There is general concern that net neutrality interferences can hamper consumers' quality of Internet experience. For example, there may be an incentive for ISPs to degrade customers' Internet speeds for reasons unrelated to reasonable network management. It is, therefore, imperative that the Authority establishes policy directions that safeguard consumer interests by promoting fair quality of experience (QoE) and transparency in ISPs' network practices. Transparency provides consumers with the requisite information to make objective choices, particularly with respect to traffic management policies and relevant QoS parameters. The Authority's policy positions on transparency are presented in section 8.

Policy Statement on Net Neutrality (the three key tenets of net neutrality)

1. The Authority establishes policy positions on net neutrality for Trinidad and Tobago which incorporate three key tenets: reasonable traffic management, non-discrimination and transparency.

5 Policy Provisions for Reasonable Traffic Management

The Authority recognises that well-functioning broadband networks require reasonable traffic management, which refers to the practices and measures implemented by ISPs to efficiently allocate and manage network resources, while ensuring all users have fair access. These practices aim to optimise network performance, mitigate congestion, and maintain QoS standards.

Reasonable traffic management aligns with concession condition A43 which states that an ISP shall operate and maintain its network and provide services in a "good, efficient and continuous manner satisfactory to the Authority and in accordance with regulations or directions made by the Authority in relation to QoS from time to time". The Authority's positions on net neutrality should therefore be interpreted as consistent with the QoS standards it prescribes. To this end, the Authority shall amend its *Consumer Rights and Obligations Policy* to incorporate the principle of reasonable traffic management as identified in this Framework.

The Authority shall generally consider, as reasonable traffic management, practices and measures that are implemented for the purpose of ensuring the proper functioning of networks, in accordance with the principles of fair competition, proportionality, and transiency.

Fair competition ensures that no ISP gains an unfair advantage through traffic management practices. It mandates that ISPs do not prioritise their own services or those of partners to the detriment of competitors, fostering a level playing field for all content providers and promoting innovation and consumer choice.

Proportionality requires traffic management measures to be appropriate, necessary, and auditable – tailored to legitimate technical needs without being excessive.

Transiency underscores the temporary nature of traffic management, ensuring measures are adaptive to network conditions and not maintained longer than necessary.

These principles collectively ensure that reasonable traffic management practices are fair and compatible with consumers' right to an open and accessible Internet. Adherence to these principles also signals fair treatment in an ISP's traffic management practices and measures, that is, that the practice or measure does not have the purpose or effect of restricting or distorting competition.

Policy Statements on Net Neutrality (reasonable traffic management)

- 2. The Authority shall generally consider, as reasonable traffic management, practices and measures that are implemented for the purpose of ensuring the proper functioning of networks, in accordance with the principles of fair competition, proportionality, and transiency.
- 3. The Authority's Consumer Rights and Obligations Policy shall incorporate the principle of reasonable traffic management as identified in this Framework.

6 Policy Provisions for Non-Discrimination in Network Practices

The Authority's policy positions on non-discrimination in Internet traffic aligns with its commitment to preventing anticompetitive conduct and unfair competition, as outlined in concession conditions A21 and A22. These provisions aim to foster conditions for fair competition and prohibit anti-competitive conduct and arrangements. Additionally, the policy positions correspond with directives in section 18 (3) of the Act and C15 of the concession, emphasising the importance of non-discriminatory treatment for consumers and service providers alike. This ensures equitable access to the Internet, regardless of the type of content being consumed or delivered.

Unless it can be justified as reasonable traffic management, ISPs shall treat similar types of traffic equally, without discrimination based on sender or receiver, content, application, or service¹³. The Authority shall generally view, as discriminatory, actions by an ISP that unfairly favour or disfavour certain traffic over others. It involves the unequal treatment of traffic, which impairs end users' ability to access or distribute lawful content over the Internet. Reasonable traffic management does not constitute unreasonable discrimination.

Discriminatory actions include blocking, throttling, altering, restricting, interfering with, degrading, or otherwise discriminating against specific traffic. Such practices compromise consumers' Internet experience, distort competition, and may give some content a competitive advantage over others. For instance, blocking restricts access to specific online resources, limiting user freedom to explore the Internet's offerings. Throttling can result in lower video quality or buffering delays in video streaming services. These actions can distort the user's experience and hinder access to diverse online resources. To safeguard competition and consumers' right to equal access to the Internet, the Authority advocates for non-discriminatory network designs and traffic management practices.

In performing its duties to monitor and ensure non-discriminatory Internet traffic practices, the Authority shall assess such practices for unreasonable discrimination¹⁴, on a case-by-case basis as necessary, considering factors such as the impact on competition and consumer protection. This assessment involves two steps: determining whether specific content or applications are or have been treated differently and evaluating if there are valid justifications for such disparate treatment.

¹³ Similar types of traffic refer to data flows that share comparable characteristics in terms of their nature, purpose, or function within the network. This includes, but is not limited to, factors such as the type of content being transmitted, the application or service being used, and the technical requirements for transmission.

¹⁴ Unreasonable discriminatory conduct refers to any action by an ISP that unfairly favours or disfavours certain applications, services, or content over others. This involves the unequal treatment of traffic that impairs end users" ability to access or distribute lawful content over the Internet, and cannot be justified as being reasonable traffic management practices.

Triggers for an assessment may include, but are not limited to, complaints from stakeholders, irregularities identified during the Authority's periodic market monitoring, evidence of practices that distort competition, or indications of harm to consumer rights¹⁵. The Authority shall publish its detailed methodology outlining the steps, criteria, and considerations involved in such assessments.

Policy Statements on Net Neutrality (non-discrimination in network practices)

- 4. To promote competition and consumers' right to equal access to the Internet, the Authority prescribes non-discriminatory network designs and traffic management practices.
- 5. The Authority shall, on a case-by-case basis as necessary, assess traffic practices for unreasonable discrimination, considering factors such as the impact on competition and consumer protection.
- 6. The assessment involves two steps: determining whether specific content or applications are treated differently and evaluating if there are valid justifications for differential treatment.

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¹⁵ See section 9 for details on the Authority's guidelines regarding monitoring and compliance processes.

7 Non-Discrimination in Commercial Practices

7.1 Zero-Rating

Zero-rating is a widely used commercial practice that allows mobile subscribers to access certain online content for "free", that is, without having the data counted against their usage allowance. The zero-rating of a specific content or service may result in consumer bias towards it since, all other factors held constant, that content or service is cheaper to the consumer. Zero-rating therefore challenges the principle of net neutrality and its requirement for both technical and economic non-discrimination in the treatment of traffic.

On the other hand, there is evidence to suggest that zero-rating may result in significant benefits to consumers, such as increased Internet usage and demand, digital inclusion, and the promotion of competition. A blanket ban on zero-rating could deprive consumers of these benefits, without evidence of actual harm.

The Authority acknowledges that, while there are potential benefits of zero-rating to consumers and competition, the practice may also, based on its function, have deleterious effects on consumer choice, competition, and innovation. In light of this, the Authority, in accordance with its function to monitor and ensure compliance with concession conditions A21, A22 and C15, shall adopt a case-by-case approach to zero-rating, assessing whether there has been unreasonable discrimination and the actual and potential impact on competition and consumers.

In its assessment, the Authority shall consider the extent to which the practice conflicts with its policy positions on non-discrimination. Specifically, the Authority shall evaluate whether the practice is used as a mechanism to engage in anti-competitive behaviour that has the purpose or effect of substantially restricting or distorting competition. The Authority shall determine whether the offer is only available, or available in more favourable terms, to an ISP's direct affiliates; creates exclusionary arrangements; or involves discriminatory pricing models. The Authority shall also take into account the existing competitive environment, including the respective market positions of the ISPs and edge providers involved.

Additionally, the Authority shall, on a case-by-case basis, review the function, nature, and general purpose of zero-rating offers, paying particular attention to any potential infringements on consumer rights. It shall evaluate whether an offer is provided in a fair and transparent manner, i.e., examine the terms and conditions (commercial and technical) associated with the offer, including the extent to which consumers and edge providers are informed about them, and can track their usage. Other factors for consideration include the effect of an offer on consumer choice and the level of consumer control retained in opting in and out of the zero-rating offers.

The Authority shall generally consider, as having a positive effect on consumers, zero-rating offers that serve a specific civic engagement purpose, such as increasing broadband adoption, closing the digital divide, or facilitating the online presence and accessing of health care, education, national security and other digital government services. These service offerings are generally viewed as beneficial to consumers and society and not detrimental to competition.

Triggers for an assessment may include, but are not limited to, complaints from stakeholders, irregularities identified during market monitoring, evidence of practices that distort competition, or indications of harm to consumer rights¹⁶. The Authority shall publish its detailed methodology outlining the steps, criteria, and considerations involved in such assessments.

Policy Statements on Net Neutrality (zero-rating)

- 7. The Authority shall generally consider, as having a positive effect on consumers, zero-rating offers that serve a specific civic engagement purpose, such as increasing broadband adoption, closing the digital divide, or facilitating the online presence and accessing of health care, education, national security and other digital government services.
- 8. The Authority shall undertake a case-by-case approach to zero-rating, considering both unreasonable discrimination and the actual or potential impact on competition, in accordance with its function to monitor and ensure compliance with concession conditions on anti-competitive conduct (A21 and A22). In accordance with section 18 (3) of the Act and concession condition C15, the Authority shall review the function, nature, and general purpose of zero-rating offers, on a case-by-case basis, paying close attention to any potential infringements on consumer rights.

7.2 Conditional Paid Prioritisation

Paid prioritisation is typically referred to as the optimisation of data transfer rates for edge providers in exchange for commercial considerations. There is a concern that this commercial practice may be at variance with the principle of net neutrality. Some opponents of the practice contend that it allows for "fast lanes" and makes ISPs the gatekeepers of the Internet. This has the potential to stifle competition and innovation without the necessary safeguards. Some experts argue against the notion of a clear divide between "fast lanes" and "slow lanes", suggesting that, with proper awareness and differentiation techniques, prioritisation can benefit specific applications without harming others (Broadband Internet Technology Advisory Group, 2015).

¹⁶ See section 9 for details on the Authority's guidelines regarding monitoring and compliance processes.

The Authority acknowledges that, in the correct context, paid prioritisation can result in significant benefits for industries and improved consumer experiences, and thus may not distort competition. This is particularly true for a wide variety of innovative online applications that require specialised treatment for their optimised provision. For example, advancements in telemedicine rely on these services. Notwithstanding the benefits of paid prioritisation, the Authority remains mindful of the potential harm of the practice to fair competition if left unmitigated¹⁷.

At this time, the Authority generally views paid prioritisation as an acceptable commercial practice; however, before it can be offered, the Authority recommends that specific conditions be met. The first condition is that the prioritisation of the traffic in question should be objectively necessary for maintaining QoS standards and is not used to secure a competitive advantage over other traffic. That is, the traffic prioritised should objectively require a higher QoS than what is available through standard Internet access, and that such prioritisation does not discriminate against other traffic or create unfair advantages for specific content providers. The second condition is that the offering of the service should not reduce the availability or general quality of Internet access service. Such paid prioritisation shall be referred to hereafter as conditional paid prioritisation.

As with its approach to zero-rating, the Authority shall assess conditional paid prioritisation on a case-by-case basis, examining the extent to which a commercial practice restricts or distorts competition (i.e., is only available, or available in more favourable terms, to the ISP's direct affiliates; creates exclusionary arrangements; or involves discriminatory pricing models). The Authority shall consider the existing competitive environment, including the respective market positions of the ISPs and edge providers involved. The Authority shall also assess the structure and nature of the practice for fairness and transparency, on a case-by-case basis.

Triggers for an assessment may include, but are not limited to, complaints from stakeholders, irregularities identified during market monitoring, evidence of practices that distort competition, or indications of harm to consumer rights¹⁸. The Authority shall publish its detailed methodology outlining the steps, criteria, and considerations involved in such assessments.

¹⁷ For example, if a large corporation with significant financial resources were to prioritise its own services over those of smaller competitors, without justification, it could create an unfair advantage in the market, stifling innovation and limiting consumer choice.

¹⁸ See section 9 for details on the Authority's guidelines regarding monitoring and compliance processes.

Policy Statements on Net Neutrality (conditional paid prioritisation)

- 9. The Authority shall generally view conditional paid prioritisation as an acceptable commercial practice providing the following conditions are met:
 - a) Prioritisation of the traffic in question is objectively necessary to maintain quality of service (QoS) standards.
 - b) The offering of the service does not reduce the availability or general quality of Internet access service.
- 10. The Authority shall evaluate conditional paid prioritisation, on a case-by-case basis, for competition distortion, fairness and transparency.

8 Transparency

Transparency is crucial for upholding the principle of net neutrality, by providing consumers with the necessary information to make objective decisions, which bolsters confidence in the Internet access services on offer. It also encourages competition, innovation, and investment. The impact of increased transparency by ISPs extends beyond end users to edge providers who rely on comprehensive information to operate effectively within the Internet ecosystem.

The Authority, guided by Section 3(c) of the Act, proposes transparency requirements for ISPs to provide the necessary public information on network operations and ensure compliance with quality standards, in accordance with section 24 (1) and Concession Condition A53. The requirements call for public disclosure of relevant information on traffic management policies, performance characteristics, and some commercial practices.

Transparency entails ISPs providing relevant and accurate information about their network practices so consumers can make objective choices about services. Specifically, ISPs should publicly disclose accurate information on the technical and commercial aspects of their services, including traffic management policies, performance characteristics, and commercial terms and conditions. The disclosed information should be timely, clear and comprehensive, to aid consumer decision making and assist edge providers in developing, marketing and maintaining online content, applications, products and services¹⁹. Effective transparency practices require that ISPs present relevant information clearly on a readily accessible website. This information should be also disclosed at the point of sale in contracts related to Internet access service. The Authority may publish information on ISPs' disclosures.

The disclosed information may be presented in two formats: high-level and detailed. The high-level format provides general information on pricing, fees²⁰, service offerings and their geographic availability²¹. The detailed format includes traffic management policies, performance characteristics, and commercial terms and conditions.

Transparency on traffic management policies encompasses descriptions of congestion management policies, security measures, and device attachment rules.

²⁰ Pricing and fees include detailed information on service costs and any additional fees (installation, equipment rental, etc.) and transparency about price changes or promotional rates. Service offerings and availability include ISPs' disclosure of the types of Internet service plans they offer (e.g., basic, premium and business) and the availability of each plan in different geographic areas (urban, rural, etc.)

¹⁹ The requirements for transparency do not include the disclosure of commercially sensitive information.

²¹ Service offerings and their geographic availability include ISPs' disclosure of the types of Internet service plans they offer (e.g., basic, premium, and business) and the availability of each plan in different geographic areas (urban, rural, etc.)

Information on performance characteristics includes data caps, actual upload and download speeds, latency, jitter, packet loss, DNS resolution times, and other relevant QoS parameters as identified in the concession or superseding regulations.

Information on commercial terms includes privacy policies, redress options, and descriptions of commercial practices such as zero-rating and conditional paid prioritisation, and their impact on Internet access services. Additionally, ISPs must disclose their customer charters and complaints handling procedures, in accordance with concession condition C4.

Policy Statement on Net Neutrality (transparency)

11. ISPs shall publicly disclose on their websites network and service-related information, including, but not limited to, general information (e.g., pricing, additional fees such as installation fees, service offerings and their geographic availability), traffic management policies, performance characteristics, and commercial terms and conditions.

9 Monitoring Strategies and Guidelines

In accordance with the functions and powers under 18 (1) of the Act, the Authority shall perform periodic assessments, to monitor and:

- 1. identify instances of unreasonable discrimination in the provision of Internet access services.
- 2. identify instances of unreasonable discrimination in zero-rating offers.
- 3. identify instances of unreasonable discrimination in conditional paid prioritisation.
- 4. ensure transparency in the provision of Internet access services.

This assessment may stem from a complaint filed by a stakeholder. The Authority shall address external complaints in accordance with the *Consumer Complaints Handling Procedures*²².

The Authority may also, on its own initiative, undertake independent assessments using information from the following sources:

- 1. **Independent market surveys and interviews**, including surveys or interviews with end users, edge providers, and industry experts to gather insights on their experiences.
- 2. **Crowdsourcing and user reports**, including reports and other generally available information collected from knowledgeable end users, like industry watchdogs and edge providers, on net neutrality-related experiences. This can be facilitated through platforms like forums, social media and dedicated reporting portals.
- 3. **Independent technical network monitoring**, entailing quantifiable metrics collected independently by the Authority using probes to assess network performance and QoS parameters, such as broadband speeds, streaming and web browsing performance.
- 4. **Collaboration with industry stakeholders**, including engagement with industry stakeholders, including ISPs, edge providers, and consumer advocacy groups, to collaborate on monitoring efforts, share data, and exchange best practices. This enhances the effectiveness of monitoring strategies.

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²² Consumer Complaints Handling Procedures: https://tatt.org.tt/wp-content/uploads/2023/10/Consumer-Complaints-Committee-Consumer-Complaints-Handling-Procedures-Approved-January-2023-1.pdf

In addition to its independent assessments, the Authority may, as the need arises, issue a request for information to the ISPs, to ensure compliance with:

- 1. non-discriminatory network practices.
- 2. non-discriminatory commercial practices (e.g., zero-rating and paid prioritisation).
- 3. transparency requirements.

The Authority shall, normally, request information that is available from the ISPs. Readily available information refers to the up-to-date information routinely collected by the providers as part of their normal business operations. The Authority is aware that ISPs may already be submitting some of this information (for example, market report data) as part of their existing data submission requirements pursuant to section 47(1) of the Act and concession condition A28. Where applicable, the Authority may align its data requests to information already required as part of the ISPs' established methods of ensuring adherence to net neutrality, such as the CANTO Code. Where additional data are required, the Authority's request shall be proportionate and limited to information needed to determine whether an ISP is in breach of the Act or concession conditions.

Appendix I provides examples of the data that may be requested by the Authority for the purposes of its investigation with respect to specific areas identified in this Framework.

Policy Statements on Net Neutrality (monitoring strategies and guidelines)

- 12. The Authority shall perform periodic assessments to monitor and ensure compliance with its policy positions on net neutrality, in accordance with the relevant provisions of the Act and concession conditions.
- 13. The Authority shall, normally, request information that is available from the ISPs. Readily available information refers to the up-to-date information routinely collected by the providers as part of their normal business operations.
- 14. Where additional data are required, the Authority's request shall be proportionate and limited to information needed to determine whether an ISP is in breach of the Act or concession conditions.

10 Compliance and Enforcement

Where, in its assessment, the Authority has evidence that an ISP's network practice or related commercial practice, is in breach of the Act or concession, it shall notify the ISP in writing. Such notification shall outline the findings of the Authority's investigations, indicating the suspected instances of non-compliance; the period during which the ISP can respond to the notification; and the Authority's requirements for compliance.

The ISP shall respond to the Authority in writing. In this response, it may present justifications for the policy, practice or measure. In its investigations on the matter, the Authority shall consider the ISP's submission.

A second notice of non-compliance may be issued by the Authority where an ISP has been given the opportunity to respond to the first notification but the period for responding has expired and no steps have been taken by the ISP to come into compliance.

Following the second notice, the Authority shall make a determination on the breach and take actions as available to it under the Act or concession. The Authority may publish this determination on its website.

For further clarification, the Authority may establish procedures to formalise its policy positions on net neutrality. The formalised procedures will provide clear guidelines and expectations for compliance with net neutrality in accordance with the Act and concession.

Policy Statements on Net Neutrality (compliance and enforcement)

- 15. Where, in its assessment, the Authority has evidence that an ISP's network practice, or related commercial practice, is in breach of the Act or concession, it shall communicate its findings via a written notification, allowing the ISP an opportunity to respond and address concerns.
- 16. If non-compliance persists despite the initial notification and/or response, the Authority shall issue a subsequent notice. Following due consideration, a determination of breach shall be made and actions may be taken, in accordance with the Act and concession.

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Appendix I: Examples of Data Requests on Net Neutrality

Table 1: Example of data request on non-discriminatory network practices

1. Traffic Differentiation Policies:

Details, where applicable, on traffic differentiation policies adopted. These include:

- a) the rules and procedures adopted by the ISP for prioritising certain types of data, such as video streaming or voice calls, over other traffic, especially during times of network congestion.
- b) the methods used to inform consumers of the traffic differentiation policies adopted by the ISP.

2. Traffic Differentiation Practices:

Details of any practices used to differentiate between specific Internet traffic during the period specified by the Authority. These include:

- a) measures taken to prioritise, throttle, or block specific Internet traffic.
- b) other applications of differential treatment based on content, source, destination, or protocol.
- c) justification for the practice, where applicable.

3. Data Usage Metrics:

Data regarding the volume and types of Internet traffic transmitted through a network over the period under investigation. This includes:

- a) total data usage by type in MB (e.g., streaming, browsing and gaming).
- b) data usage breakdown by source in MB (e.g., websites and applications).

4. Additional Comments or Information:

[Optional: Any additional comments or information relating to the ISP's discrimination in network and commercial practices, and a justification where applicable. This may include incident and internal investigation reports, where applicable.

Table 2: Example of data request on zero-rating

1. Zero-Rating Policies:

Description of zero-rating policies or practices implemented by the ISP during the period specified by the Authority. This includes the criteria for selecting services or applications eligible for zero-rating.

2. Zero-Rating Offers:

List of services or applications that are zero-rated, along with any relevant details on zero-rating offers. This includes:

- a) the terms and conditions of the offers, such as data caps or other limitations associated with the zero-rated offers.
- b) relevant terms and conditions of agreements, arrangements, or understandings associated with third-party content providers.

3. Usage Metrics for Zero-Rated Services:

Data regarding the use of zero-rated services by the ISP's subscribers over the period specified by the Authority. This includes:

- a) total data consumption in MB for zero-rated offers compared to non-zero-rated offers.
- b) data usage breakdown in MB by zero-rated service or application.

4. Additional Comments or Information:

Optional: Any additional comments or information relating to the ISP's zero-rating offers. This may include impact assessments of the benefits to citizens, where applicable.

Table 3: Example of data request on conditional paid prioritisation

1. Conditional Paid Prioritisation Policies:

Description of paid prioritisation policies or practices implemented by the ISP during the period specified by the Authority. This includes the criteria for offering paid prioritisation services.

2. Paid Prioritisation Services Offered:

- a) description of paid prioritisation services offered by the ISP.
- b) relevant terms and conditions of agreements, arrangements or understandings with third-party content providers.

3. Data Usage Metrics for Paid Prioritisation:

Data regarding the volume and types of Internet traffic transmitted through a network over a specified period, focusing especially on traffic subject to paid prioritisation. This includes:

- a) total data volume in MB for conditional paid prioritisation services.
- b) b. data usage breakdown in MB by type of paid prioritisation service.

4. Additional Comments or Information:

Optional: Any additional comments or information relating to conditional paid prioritisation. This may include information on network capacity and quality of service metrics, where applicable.

Table 4: Example of data request on transparency

1. Transparency Policies

Description of transparency policies or practices implemented by the ISP, including disclosure of:

- a) traffic management policies to consumers, for example, providing a description of congestion management policies, security measures and device attachment rules.
- b) performance characteristics, for example, information on data caps, actual upload and download speeds, latency jitter, packet loss, DNS resolution times and other relevant QoS parameters.
- c) commercial terms and conditions, for example pricing, privacy policies and redress options.

2. Consumer Notifications:

Details of any notifications or disclosures provided to consumers regarding changes to the ISP's traffic management policies, performance characteristics and commercial terms and conditions.

3. Availability of Information:

Details on how consumers can access information regarding the service, for example, via a website or information published elsewhere.

4. Transparency Reports:

Any transparency report or disclosure published by the ISP. This may include data on compliance with net neutrality transparency requirements and industry standards, such as transparency reports to show compliance with internal policies on net neutrality or the CANTO Code.

5. Additional Comments or Information:

[Optional: Any additional comments or information regarding the ISP's transparency practices or compliance with net neutrality tenets]

Appendix II: Decisions on Recommendations (DORs) Matrix from the Second of Two Rounds of Public Consultation on the Framework on Net Neutrality in Trinidad and Tobago