



## Telecommunications Authority of Trinidad and Tobago

### PUBLIC CONSULTATION COMMENT SUBMISSION FORM

**Policy Name:** [Net Neutrality and OTT Services in Trinidad and Tobago](#)

In the information submitted below, please indicate what information should be considered as confidential by the Authority.

**1. Respondent Category:**

- (a) Regional regulatory or governmental agencies
- (b) Existing service and/ or facility providers and affiliates
- (c) Potential service and/ or facility providers and affiliates
- (d) Service provider associations/ clubs/ groups
- (e) Consumers/ consumer groups
- (f) General public

**2. Interest**

(Provide details of any relationship with/ interest in any of the above respondent categories):

The Trinidad and Tobago Computer Society (TTCS ; <https://tcs.tt/> ) is a computer user group formed in 1997. We:

- are a forum where computers, related technologies and related social issues are discussed;
- keep current with the events in the local Information Technology and telecommunications industries ;
- “Network local computer users” so that they can share knowledge and improve upon their experiences with modern technology.
- hold membership in several international organisations and advise on technology issues in Trinidad and Tobago and the region.

**3. Contact Information:**

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#### 4. Comments:

(For ease of reference, we quote the text from TATT's section 7,8,9 and then answer the discussion points)

## 7. Guiding Principles for Net Neutrality in Trinidad and Tobago

In addressing the topic of net neutrality within the Trinidad and Tobago market, the Authority recognises the need for a policy approach that acknowledges the value of protecting the “openness” of the Internet, while making allowance for “reasonable”<sup>17</sup> traffic management practices. The five principles set out below seek to balance these two competing interests. Furthermore, they are informed by the Authority’s overarching Guiding Principles for Regulatory Decision Making and, in particular, seek to: promote fair and effective competition; encourage investment within the sector; facilitate market development; and promote and protect the interests of consumers.

### Principle 1: Reasonable Traffic Management

The Authority recognises that well-functioning broadband networks require operators to manage their networks reasonably. Thus, traffic management techniques that are reasonable and serve to address specific needs should be allowed. This principle is based on the Authority’s mandate to promote the advancement and development of the sector as found in section 3 (b) of the Act.

While reasonable traffic management remains quite a subjective term, the research suggests that traffic management is reasonable when there is adherence to the following best practices. The traffic management solution should:

1. be geared towards solving a specific, legitimate and demonstrable technical need and nothing more.
2. have proportional and reasonable effects in relation to the problem at hand.
3. be auditable<sup>18</sup> and demonstrable in relation to satisfying the above three criteria.

<sup>17</sup> The FCC describes network management practice as reasonable “if it is appropriate and tailored to achieving a legitimate network management purpose, taking into account the particular network architecture and technology of the broadband Internet access service” (FCC 2015).

<sup>18</sup> This means a log should be kept of the traffic management controls that were initiated on the network for a period of one year after the event. The log should include information as to who initiated the command, the time and date the command was conducted, and the requisite effects of the commands on resolving the traffic management issue.

## Principle 1: Reasonable Traffic Management

### Guiding Principles on Reasonable Traffic Management

1. *The Authority recognises that well-functioning broadband networks require operators to manage their networks reasonably.*
2. *Traffic management techniques that are reasonable and serve to address specific needs should be allowed.*

## Discussion Points

1.	<b>Do you agree with the criteria identified in Principle 1 to determine reasonable traffic management practices? Please explain your response.</b>
TTCS response	<p>While the TTCS recognizes the need for operators to manage their networks, we are concerned that operators will use the traffic management techniques mentioned in the discussion paper (traffic shaping, deep packet inspection, zero rating, blocking) as a guise to promote their own narrow economic interests and hamper those that they perceive as competitors.</p> <p>The TTCS believes that under normal circumstances, reasonable pricing plans when combined with well thought investment in broadband capacity will ensure that the network performs acceptably 98% of the time.</p> <p>Operators on broadband networks may need (and already use) traffic <b>measurement</b> to understand how the broadband is being used on their networks to enable them to understand their user market and to ensure that their network is able to provide the bandwidth paid for by their customers.</p> <p>In special circumstances such as a national emergency (natural disaster, state of emergency), the TTCS believes that operators can restrict bandwidth to regular customers to ensure critical services (fire, police, hospitals, army) have priority use of the network. The criteria for such deviations should be clearly set out in advance by TATT in coordination with the Office of Disaster Preparedness and Management (ODPM) and other parties identified in the draft National Emergency Communications Plan. Such deviations should have an audit trail as mentioned in principle 1.</p>

2.	<p><b>Which traffic management principles should be upheld by ISPs in the determination of reasonable traffic management measures, e.g., transparency, non-discrimination, proportionality and non-commercial considerations? Please explain your response.</b></p>
TTCS response	<p>We don't believe that under normal circumstances, traffic management will be required once the ISPs balance capacity with demand using appropriate traffic measurement to understand how the broadband is being used on their networks at what times to enable them to better understand their user market and to ensure that their network is able to provide the bandwidth paid for by their customers.</p> <p>In emergencies as described in our response to question 1, decisions to deviate from the norm should be transparent, proportional and free from non commercial considerations of limited duration and auditable.</p> <p>In general there are many things that ISPs can do to manage traffic on their networks. However, we are in strong agreement that the techniques used should be transparent (the customers should be alerted), should not discriminate against the provider of a specific service (through blocking, throttling or zero rating) and should be used only in special circumstances (backbone outage, natural disasters, etc) And even in the latter case, traffic management should cease once the specific initiating event has been resolved. As an example, ISPs can use different pricing strategies to manage demand (off peak discounts, higher prices above a certain limit, etc)</p>

3.	<p><b>To what extent should ISPs be allowed to utilise technologies with traffic monitoring capabilities such as DPI, to identify specific type or content of data traffic, as part of their traffic management practices?</b></p>
TTCS response	<p>Deep Packet Inspection (DPI) can be abused as a precursor to filter,block and throttle traffic. There is also a fairly serious performance penalty. As more and more data is encrypted, DPI becomes less and less effective. It is likely that the return (seeing the data) on the performance investment (cost of inspecting the packets) will decline rapidly over time.. In the near future, all that will be visible is the source and destination addresses and ports. See <a href="https://arstechnica.com/information-technology/2018/04/how-to-keep-your-isps-nose-out-of-your-browser-history-with-encrypted-dns/">https://arstechnica.com/information-technology/2018/04/how-to-keep-your-isps-nose-out-of-your-browser-history-with-encrypted-dns/</a></p> <p>Should ISPs try to get around encrypted traffic by breaking the SSL/TLS stream all traffic will be exposed (passwords, credit card numbers, etc) and this will represent a major invasion of privacy as well as a massive self inflicted vulnerability. That proxy will become a massive honeypot.</p> <p>Therefore, we do not support the use of traffic monitoring capabilities such as DPI as part of traffic management.</p>

## Principle 2: No Unreasonable Discrimination

The principle of no unreasonable discrimination follows from the Authority's commitment to addressing anti-competitive pricing and acts of unfair competition pursuant to its legislative mandate included in section 29 of the Act. The enforcement of this principle, however, shall require an expansion of the Authority's competition powers to address issues outside of pricing.

Sophisticated technologies have emerged that give network operators unprecedented knowledge of the activities taking place within their networks. Such knowledge can be used to the benefit or detriment of both end users and content providers. Considering this, it is imperative that network operators refrain from exploiting these technologies to engage in unreasonable traffic discrimination.

The Authority considers unreasonable discrimination as practices that harm actual or potential competitors (e.g., the degradation of competing VoIP applications or services) and end users (e.g., blocking end users from accessing lawful content of their choice). It also includes acts that impair free expression, such as the deliberate slowing down of lawful traffic due to the nature of the content.

Additionally, in cases where service providers (who do not own or operate a network) provide a service to consumers from the edge of the network, such service providers should not be unjustly discriminated against by other service providers (wholesalers) on whom they depend to get access to the Internet.

The Authority thus proposes net neutrality rules that specifically prohibit network operators from intentionally downgrading and/or blocking lawful content, applications and/or services so as to render them effectively unusable to consumers. Conversely, discriminatory practices may be allowed for societal issues that are of paramount importance. These include but are not limited to: public safety, emergency situations, national security issues and child pornography. Discriminatory practices should also allow for the filtering of unlawful content, inclusive of violations of intellectual property rights. For an application of this, with respect to the proliferation of Android boxes in Trinidad and Tobago, see "Telecommunications Authority of Trinidad and Tobago Discussion Paper on Android Boxes in Trinidad and Tobago 2018."

## Principle 2: No Unreasonable Discrimination

### Guiding Principles on No Unreasonable Discrimination

- 1. The Authority proposes net neutrality rules that specifically prohibit network operators from intentionally downgrading and/or blocking lawful content, applications and/or services.**
- 2. Discriminatory practices may be allowed for societal issues such as: bridging the digital divide, public safety, emergency situations, law enforcement and national security issues, and child pornography.**

## Discussion points on **Principle 2: No Unreasonable Discrimination**

4	<b>Do you agree with the potential effects of each of the net neutrality interferences (blocking, throttling, zero-rating and paid prioritisation) on consumers, content providers, service providers and other stakeholders as discussed in chapters 4 and 5? Please explain your response.</b>
TTCS response	<p>Given the massive increase in encryption being rolled out across the Internet (Let's Encrypt on the server side, and the activities of the major browsers and search engines on the client side), it is difficult to see how the ISPs and authorities will be able to discriminate on content that they can't see. As such the policy levers of blocking content will become rapidly less effective over time.</p> <p>Given each scenario outlined above the authorities may wish to consider different types of policies (user education, etc) that may prove to be more effective in the long run.</p> <p>As the Internet Society's White Paper titled "Perspectives on Internet Content Blocking: An Overview" dated March 2017 notes:</p> <p><i>"The Internet Society believes the most appropriate way to counteract illegal content and activities on the Internet is to attack them at their source. Using filters to block access to online content is inefficient, likely to be ineffective, and is prone to generate collateral damage affecting innocent Internet users."</i></p> <p>The Internet Society report should be read in its entirety at <a href="https://www.internetsociety.org/doc/internet-content-blocking">https://www.internetsociety.org/doc/internet-content-blocking</a></p> <p>It is difficult to determine how traffic management will address the digital divide. And as to natural disasters, please see our response to question 1 and 2.</p>

5.	<b>Should ISPs be permitted to employ marketing strategies (such as zero-rated pricing) through partnerships with content providers? Please explain your response.</b>
TTCS response	<p>No. This is a violation of net neutrality principles and provides advantages to large, well funded corporations (at the expense of smaller, innovative startups). For example, by Digicel zero rating Loop TT (<a href="http://www.looptt.com/">http://www.looptt.com/</a>), Digicel gives Loop TT an advantage over other local news media (newspapers, radios) as Digicel users do not pay to access Loop TT but are charged to access other news media sites.</p> <p>Zero rating negatively impacts on the likelihood that future innovations can survive to grow into useful services. Imagine if Altavista has approached ISPs in the mid 1990s to zero rate their search platform ; Google would have unlikely to been able to get acceptance. Or if Myspace has approached ISPs in the mid-2000s to zero rate their Myspace social network, Facebook might not have been able to survive.</p> <p>Zero rating of commercial traffic should be prohibited. However, perhaps we can have a discussion on zero rating on non political public services - such as government websites (Ministry of Health, Ministry of Education for example).</p> <p>Perhaps we need a zero rating tribunal where applications by ISPs to zero rate certain content are decided by a panel convened and managed by the regulator who use a clear rubric and transparent process to determine on a case by case basis what should be zero rated based on guidelines such as that from the Body of European Regulators for Electronic Communications (BEREC) at <a href="https://berec.europa.eu/eng/netneutrality/zero_rating/">https://berec.europa.eu/eng/netneutrality/zero_rating/</a>. Such applications for zero rating should allow for public disclosure and public comment.</p> <p><b>In this model, ISPs should not be allowed to zero rate traffic unilaterally until such applications are submitted and approved.</b></p>

6.	<b>Should ISPs be permitted to receive financial compensation from content providers to give preferential treatment (such as paid prioritisation) to certain Internet traffic? Please explain your response.</b>
TTCS response	<p>This very statement is against net neutrality. No. ISPs should NOT receive financial compensation from content providers to give preferential treatment (such as paid prioritisation). However we recognize that the performance of the ISP's network benefits if content providers are able to provide caching servers as close to the edge of the ISP's or IXP's (Internet Exchange Point) network. Given that both parties would benefit significantly from this, net payments should be minimal or zero.</p>

<b>7.</b>	<b>Should ISPs be permitted to charge premium prices to consumers who are willing to pay for preferential treatment of certain Internet traffic? Please explain your response.</b>
TTCS response	ISPs can charge premium prices to consumers for higher bandwidth (as is being done now) and higher data capacity, better QoS and faster technical support. In fact, ISP's through pricing innovations can go a long way to alleviating some of the congestion they complain about. Once an ISP's customer has paid, the customer should have unfettered access free from blocking, zero rating, or throttling.

<b>8.</b>	<b>In addition to those mentioned in questions 5, 6, and 7 what other forms of discrimination would you consider to be reasonable? Please explain why.</b>
TTCS response	<p>We don't consider other forms of discrimination to be reasonable. As per our response to question 1, a national emergency situation may require regular customers to receive reduced bandwidth to ensure more persons are able to do minimal communications and that critical parties (police, fire, medical, etc) are able to communicate.</p> <p>All other forms of discrimination are likely to be ineffective and inefficient in comparison with other policy initiatives and come with potentially severe side effects - for example loss of privacy (ISPs seeing what customers are seeing, reading, saying), security and network performance.</p>

<b>9.</b>	<b>Can effective competition deter ISPs from engaging in discriminatory practices that negatively impact the market? Please explain your response</b>
TTCS response	<p>The more independent ISPs there are in a market, the more difficult it is for them to collude. This will allow ISPs the ability to differentiate themselves based on privacy, performance (no DPI, no throttling), technical support, and price.</p> <p>However, competition alone (see collusion) is not sufficient to prevent ISPs from engaging in discriminatory practices. Net Neutrality needs to be enshrined in the laws and regulations and the regulator should monitor ISPs to ensure that they conform to the letter and the spirit of those laws.</p>



## Principle 3: Encouraging Investment

This principle builds on section 3 (f) of the Act, which posits that one of the objects of the Act is ‘promoting the telecommunications industry in Trinidad and Tobago by encouraging investment in, and the use of, infrastructure to provide telecommunications services.

There are conflicting views on the effect of net neutrality regulation on sector investment. Some critics fear that net neutrality regulation will invariably hamper investment incentives, while others discount this notion.

Given these complexities, the Authority believes that any policy position taken on net neutrality should ensure that market opportunities and investment prospects are not unduly disrupted by regulation. In fact, policy decisions should seek to ensure that the market environment sends out the correct signals that encourages rather than hamper investment through regulatory certainty, e.g., through sector stability and the expectation of reasonable rates of return on investment opportunities.

### **Guiding Principles on Fostering Investment**

- 1. Net neutrality policy decisions should ensure that market opportunities and investment prospects are not unduly disrupted.**
- 2. Net neutrality policy decisions should encourage a climate of regulatory certainty that incentivises investment, e.g., through sector stability and the expectation of reasonable rates of return on investment opportunities.**

## Discussion Points on **Principle 3: Encouraging Investment**

10.	<b>What evidence is there to support or refute the argument that pro net neutrality-based rules stymie investment opportunities? Please explain your response.</b>
TTCS response	<p>When considering Investment the regulator needs to consider investment by the ISPs and well as investments by the content and app developers so that it can strike a balance that encourages both. The health of the Internet ecosystem is determined by both groups. Net neutrality allows for anyone to innovate on the open internet without having to make special deals with ISPs to ensure persons paying for Internet access will be able to access them. And such startups and services can focus on their business model that uses the Internet. Startups can invest in contracting/hiring skilled persons to do design and coding of websites and/or mobile apps, paying for their content (website, audio, video) to be hosted and paying for bandwidth for content hosted to be delivered when users access their services online. As startups grow, more persons can be employed and promoting growth in other areas (skills training for example). Such development of a skilled workforce will augur well for other startups to find such persons which in turn will foster growth in the local economy. Therefore, we consider preserving net neutrality will ensure that market opportunities and investment prospects are not unduly disrupted.</p> <p>In terms of ensuring all persons have access to affordable Internet bandwidth in Trinidad and Tobago, we note that the Universal Service Fund established by TATT should be used more to ensure broadband deployment in areas not being serviced by the ISPs doesn't appear to be used save for the deployment of WiFi in certain buses.</p> <p>TTCS would also like to point out that data traffic across the Internet is growing by 25% year on year. Most businesses would love to experience this type of growth and the ISPs should be able to make up for lost voice and video revenues based on this alone. However, the 'all you can eat' pricing model providing no incentive to conserve. This in turn drives up ISP capital expenditure to keep up with underfunded growth in demand.</p>

11.	<b>What role, if any, can a framework for net neutrality play in increasing broadband uptake in Trinidad and Tobago?</b>
TTCS response	<p>Net neutrality leads to a more diverse, open and interesting Internet ecosystem which in turn makes it very attractive for persons wanting to get high speed broadband.</p> <p>According to TATT's Annual Report for 2017, T&amp;T has 255 thousand fixed broadband subscriptions. This puts T&amp;T in the upper decile for developing countries and is credible when compared with developed countries. Continued growth in the number of broadband users is going to be determined by affordability, availability, interest, etc.</p> <p>At this point, the TTCS feels that impediments to further growth are likely technical and economic (rural areas) and affordability (in a period of growing unemployment). As such, net neutrality in addition to other policies such as tax credits for rural infrastructure - including wireless and subsidies for low income households can go a long way in fostering additional growth in broadband uptake.</p>

## Principle 4: Transparency

Pursuant to section 3 (c) of the Act, one of the objects of the Act is to promote and protect the interests of the public by providing for the protection of customers. This involves ensuring consumers are able to make informed choices in their decision-making process. Customers must therefore have access to information regarding the Internet services they intend to purchase. This in turn promotes competition within the industry, as informed consumers are more likely to select service providers offering the best service.

This principle calls for network operators to exercise due diligence in disclosing their traffic management policies to customers in a format that is easily comprehended. This includes disclosure of network practices (for e.g. paid prioritisation and zero rating), inclusive of traffic management practices and application-specific behaviour<sup>19</sup>. In addition, commercial terms and conditions, inclusive of pricing and privacy policies, are to be adequately provided to the customer. Moreover, all data privacy policies should be established in accordance with the relevant laws of Trinidad and Tobago.

Notwithstanding the above, the Authority recognises the disclosure of traffic management information that is commercially sensitive in nature, or which may compromise the security of a network, should be exempted from the principle of transparency.

<sup>19</sup> This includes disclosure as to whether and why the provider blocks or rate-controls specific protocols or protocol ports, modifies protocol fields in ways not prescribed by the protocol standard, or otherwise inhibits or favours certain applications

## Guiding Principles on Transparency

1. Network operators should disclose their network practices inclusive of traffic management practices and application-specific behaviour.
2. The disclosure of traffic management information that is commercially sensitive in nature, or which may compromise the security of a network, should be exempted from the principle of transparency.

## Discussion Point on Principle 4: Transparency

12.	<b>In addition to commercially sensitive information or network security information, what network practices should not be publicly disclosed? Please provide reasons to support your answer.</b>
<b>TTCS response</b>	<p>These should be disclosed so consumers can assess the health of the network at any given time.</p> <ul style="list-style-type: none"><li>• Status of paths into the core of the Internet (outages, performance, average latency)</li><li>• Currently Zero rated services (see notes of Zero Rating Tribunal Above)</li><li>• Throttling in effect (reasons, expected duration)</li></ul> <p>These should not be disclosed</p> <ul style="list-style-type: none"><li>• Equipment and Operating Systems</li><li>• Systems Configuration</li><li>• Internal Pricing (ie what Digicel pays to AT&amp;T)</li></ul> <p>Disclosure of this type of information could lead to security breaches and exposure of commercial secrets and intellectual property.</p> <p>With regards to data privacy policies, consideration should be given for ISPs to disclose to their customers (and other bodies in accordance with the relevant data privacy laws of Trinidad and Tobago) notice of any data breaches resulting in customer data being stolen.</p>

## Principle 5: Promoting Local Innovation and Entrepreneurship

The basis of this principle can be found in the National ICT Plan, fastforward II which aims for the diversification of the economy through ICT sector development.

Innovation has played a critical role in the economic development of countries and is therefore key for economic diversification. In particular, it is articulated that the development of local digital systems is vital for building digital literacy, serving local needs and boosting competition in international digital services markets (World Economic Forum 2015). To capitalise on these opportunities, there should, therefore, be a thrust towards cultivating digital innovation within Trinidad and Tobago.

As such, any policy framework on net neutrality should be guided by the stimulation of local innovation and entrepreneurship, as this would allow for customised solutions to meet the specific needs of Trinidad and Tobago.

### Guiding Principle on Promoting Local Innovation and Entrepreneurship

1. **Any policy framework on net neutrality should be guided by the stimulation of local innovation and entrepreneurship.**

## Discussion Point on Principle 5: Promoting Local Innovation and Entrepreneurship

13.	<b>What role, if any, should the stimulation of local innovation play in sector-wide regulations on issues such as net neutrality? Please explain your response.</b>
TTCS response	<p>In spite of its relatively small size, Trinidad and Tobago has had innovation with more and more online products and services being introduced locally. A lack of net neutrality legislation directly threatens investment in local technology entrepreneurs since the risk of an ISP blocking or throttling a product must be factored into the risk profile of any venture.</p> <p>Given our modest capacity for local technology innovation, any regulatory framework should seek to ensure that we are not cut off from international innovations. Furthermore, nothing is put in place to act as a disincentive to future local innovation that uses local or international services.</p>

## 8. Recommendations

The above guiding principles strive to strike the delicate balance between protecting the “openness of the Internet” while preserving and promoting the conditions required for a vibrant and competitive free market.

The Authority thus proposes the adoption of a “targeted approach” to the net neutrality interferences introduced in section 3, i.e., the adoption of regulations that proscribe practices expected to cause anti-competitive/detrimental effects within the market, while taking a light-touch approach towards those interferences that may provide pro-competitive<sup>20</sup> effects.

<sup>20</sup> These are effects that promote competition within the marketplace

## 8.1 Blocking and Throttling

A key component of ensuring the openness of the Internet is the ability of users to send and receive lawful content without fear of being blocked by their ISPs. Notwithstanding the reasonable traffic management practices discussed above, the Authority proposes the implementation of rules which prohibit ISPs from blocking end-users from freely accessing lawful information, content, services and applications. Additionally, in the interest of safeguarding the open Internet, ISPs should not be allowed to intentionally restrict, alter, degrade or impair specific content, services or applications.

### Policy Statements on Blocking and Throttling

- 1. An ISP should not prevent (through blocking) end users from freely accessing and/or providing lawful information, content, services and applications.**
- 2. Subject to the principle of reasonable traffic management, an ISP should not intentionally restrict, alter, degrade or impair specific content, services or applications.**

### TTCS Response

Whilst #1 seems straightforward to support, we note that it mentioned “lawful information” which suggests that an ISP can prevent (through blocking) end users from freely accessing and/or providing information, content, services and applications that is deemed unlawful.

As the Internet Society’s White Paper titled “Perspectives on Internet Content Blocking: An Overview” at <https://www.internetsociety.org/doc/internet-content-blocking> notes :

*“The Internet Society believes the most appropriate way to counteract illegal content and activities on the Internet is to attack them at their source. Using filters to block access to online content is inefficient, likely to be ineffective, and is prone to generate collateral damage affecting innocent Internet users.”*

As for #2 which seems straightforward to support, please note our responses to #1, #2, #3 under Principle 1 “Reasonable Traffic Management” as to what we consider reasonable traffic management.

## 8.2 Paid Prioritisation and Zero-Rated Pricing

The Authority proposes a more flexible approach to paid prioritisation and zero-rated pricing. The adoption of this approach is based on the argument that paid prioritisation and zero-rating practices are not universally harmful and may provide opportunities where consumer welfare can be enhanced. Placing a general ban on such practices may therefore result in the loss of substantial benefits to society. For example, it has been contended that the practice of zero-rating may result in lower prices and increased Internet uptake (Eisenach, Jeffrey A. 2015). Similarly, allowing practices such as paid-prioritisation has been linked to advancements in the field of medicine through the use of applications and services, for example telemedicine (Pai 2017).

There may however, be instances of harmful offences of paid prioritisation and zero-rating practices, for example conducts involving anticompetitive behaviour. The recommended approach thus calls for the punishment of actual harmful and proven offences, as opposed to the absolute banning of paid prioritisation and zero-rating practices. It is, therefore, proposed that each case be evaluated on its individual merit and that regulatory action be taken only where one or more of the guiding principles are violated. In the adoption of this light-touch approach to regulation, the Authority proposes that an operator engaging in either paid prioritisation or zero-rating may be required, upon request by the Authority, to prove that his actions have provided some pro-competitive effects within the market, do not cause undue harm to consumers<sup>21</sup>, and do not constitute anti-competitive practices.

### **Policy Statements on Paid Prioritisation and Zero-Pricing**

- 1. The Authority proposes penalising harmful and proven offences as opposed to the absolute banning of paid prioritisation and zero-rating practices.**
- 2. Each case should be evaluated on its individual merit and regulatory action would only be warranted where there is violation of one or more of the guiding principles.**

### **TTCS Response**

See response to #5 with regards to the establishment of a zero rating tribunal and the establishment of transparent rules for the determination of zero-rating practices before. We think this is a better approach than allowing ISPs to unilaterally implement zero rating or paid prioritisation on their terms.

Another issue with the proposed approach is the ambiguity surrounding how TATT would be able to evaluate to intervene on cases of “harmful and proven” offences. First, how would TATT (or anyone else) know when an ISP implements zero rating or paid prioritization? It seems that the only way TATT gets involved is if the parties affected by paid prioritization either sees an ad by the ISP promoting such acts or directly impacted parties sees a drop in traffic which may be hard to determine why it is happening especially if the ISP implements paid prioritisation or zero pricing silently without notifying anyone. Such impacted parties could see their businesses collapse before TATT evaluates and determines whether a



paid prioritisation or zero pricing is happening and gathering proof from the ISP, evaluating claims that affected parties that think they are being negatively impacted from an ISP's zero rating or paid prioritisation, making a decision that this is harmful and a proven offence. If this takes months and years, impacted parties can go out of business, making enforcement moot. There is also the element of paid prioritisation being used to promote "fake news or political" content that could impact elections.

Therefore, we do not support paid prioritisation or zero pricing with this "light touch approach" unless an application is made first and that application being subject to public comment before decisions to approve or disapprove are taken. And ISPs should be penalised if they are caught doing zero rating or paid prioritisation without approval.

<sup>21</sup> This involves an assessment of whether prices have increased, consumer choices and quality of service have decreased, and/or whether product/service innovation has fallen.

## 9. Regulation of OTT Services

Closely related to the topic of net neutrality is the issue of the regulation of OTT services. OTT providers and their concomitant services now form part of the Internet's ecosystem. The disruptive nature of these technologies has sparked network operators in Trinidad and Tobago to advocate for some form of regulation to create a more level playing field within the industry. They contend that the current regulatory environment is imbalanced and has thus created an unfair competitive advantage for OTT providers. On the other hand, supporters of net neutrality, including consumer interest groups within Trinidad and Tobago, have expressed concerns over the regulation of the Internet and its content, inclusive of OTT services. They fear the effects of interfering with a model that has worked to the benefit of consumers and businesses alike.<sup>22</sup> These opposing views highlight the complexity of the subject at hand as well as its regulatory solution.

The issue of OTT regulation was first considered by the Authority in 2015 within its consultative document Towards the Treatment of Over-The-Top (OTT) Services. At that time, OTT voice was the primary focus of the document, and it included the Authority's preliminary assessment of whether OTT voice services could be considered a telecommunications service and, therefore, subject to regulation by the Authority, in accordance with section 21 of the Act. That document concluded that OTT voice may be classified as a public telecommunications service.

Recognising that other types of OTTs are making waves within the telecommunications and broadcasting sectors, it is imperative that the Authority broadens its assessment on the regulation of OTTs to include OTT messaging and OTT media.

This section explores the case for the regulation of OTT services. It provides the definitions of telecommunications service and broadcasting service and examines the extent to which the Authority's regulatory scope covers OTT services.

<sup>22</sup> See comments contained within the Decisions on Recommendations published from the first round of consultation on the document titled Towards the Treatment of Over-The-Top (OTT) Services.

## 9.1 Definition of a Telecommunications Service

### 9.1.1 Literal Interpretation of the Telecommunications Service Definition

As a starting point, it must be determined whether the scope of the current legislative framework includes OTT communication (voice and messaging) and media services (audio visual content). The definitions of “telecommunications”, “telecommunications service”, and “public telecommunications service” are thus examined to ascertain if OTTs <sup>23</sup> fall under the umbrella of telecommunications.

The Act defines “telecommunications”, “telecommunications service” and a “public telecommunications service” as follows:

“Telecommunications” 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.

“Telecommunications service” means a service using telecommunications whereby one user can communicate with any other user in real time, regardless of the technology used to provide such a service, and includes a public telecommunications service, a private telecommunications service, a closed user group service, and a radio communication service.

“Public telecommunications service” refers to 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 preceding definitions suggest that a service which uses telecommunications, where telecommunications means the transmission, emission or reception of signals, writing, pulses, images, sounds or other intelligence of any kind, to facilitate real time communication is a telecommunications service. Further to this, provisions were made within the definitions for such services to be provided regardless of the technology employed.

<sup>23</sup> OTT voice and messaging services are often compared to traditional telecommunications services, while OTT media services are often compared to traditional broadcasting services. As such, the definitions of telecommunications services and broadcasting services were assessed.

A literal interpretation of these definitions implies that some OTT applications fall within the scope of telecommunications service on the premise that they use telecommunications for their delivery, users can communicate in real or near real time, and providers can employ any technology to provide the service. Further to this, OTTs which have satisfied the literal interpretation of telecommunications services and are offered to members of the public can be regarded as public telecommunications services. However, a determination as to the true scope of these definitions and whether they, in fact, cover OTTs requires an assessment as to the intention of Parliament in drafting the Act and the Authority's subsequent applications of these definitions.

In the case of regulatory oversight of OTT media service, which is a service that resembles broadcasting since it entails the distribution of audio visual content, the Act's definition of telecommunications is relevant. Given that telecommunications include the transmission or reception of images and sound, broadcasting essentially is telecommunications provided over a telecommunications network. However, in ascertaining if OTT media service is a broadcasting service to be regulated by the Authority, the definition of broadcasting service must be considered.

The Act defines a broadcasting service 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”.*

The preceding definition shows a connection between content (programmes) to be received by the public and transmission of same. This is suggesting that the service to be regulated by the Authority is one where the transmission of programmes (audio or visual content) is involved. Having previously established that broadcast transmission occurs by way of a telecommunications network, it can be further implied that it is only in cases where a dedicated network or infrastructure is used to broadcast that the service can be deemed as a broadcasting service.

## **9.1.2 Parliamentary Intention for the Regulation of Telecommunications Services**

The intentions of Parliament play a key role in interpreting the definition and scope of telecommunications services. It was stated in Hansard that the 2001 Telecommunications bill would take into account “the entire communications sector” and applied to “all types of communications services” and to content services however delivered<sup>24</sup>.

Furthermore, the debate on the 2004 amendment to the legislation showed it was the intention of the legislators that the amended Act would give effect to a policy of technology neutrality in recognition of emerging technologies in the information and communication technologies (ICT) sector. The amended Act introduced technology neutrality into the definitions of “public telecommunications service” and “telecommunications service”. The inclusion of the words “... regardless of the technology used to provide such service,” in the definitions was therefore meant to capture “other technologies providing real time voice service or telecommunications services”.

Additionally, the Explanatory Note to the Telecommunications Bill elaborates that amendments to the definitions of “public telephone service” were considered necessary for the following reasons:

*“As drafted, there may be an interpretation that this definition applies only to traditional switched telephony. The proposed amendment which will delete the words “the direct transport and switching of voice” and substitute the words “interactive voice communication” will make it abundantly clear that the Authority will regulate the delivery of all public voice services irrespective of the means used to provide the service (e.g., VOIP)”<sup>24</sup>*

There was, therefore, a deliberate attempt to ensure that the subject definitions covered not only the current situation but also covered what would take place in the future. There was recognition of the advancement of technology from Public Switch Transmission Network (PSTN) to packet switched networks, particularly IP-based. Based on the reading of Hansard and the Explanatory Note, this recognition led to attempts to draft legislative and regulatory frameworks that reinforced a technology neutral approach.

It should be noted that this forward-looking approach when applied to the current regulatory framework was mainly focused on the technology used to provide the service, i.e., “by wire, wireless, optical or electromagnetic spectrum or by way of any other technology”. However, as will be discussed below, OTT services are unique, not necessarily by the technology used to deliver the service, but because they have taken advantage of new and emerging technologies to deploy a business model that now separates services (voice, messaging and media) from the underlying telecommunications infrastructure. This challenges the suitability of the current regulatory framework.

<sup>24</sup> Explanatory Note – The Telecommunications (Amendment) Bill, 2004

### **9.1.3 A Review of the Application of Technology Neutrality to the Authority’s Regulatory Framework**

The principle of technology neutrality underpins the Authority’s regulatory framework, which undoubtedly provides flexibility in an era of rapid technological advancement that has given rise to new markets and services facilitated by the convergence of telecommunications, broadcasting and the Internet. It should be noted however, that the meaning and intent ascribed to technology neutrality varies within the international community and is therefore applied differently by regulators depending on their desired outcome.

The definitions of “telecommunications” and “telecommunications services” as contained within the Act provide the backdrop for the Authority’s interpretation and application of the technology neutrality principle. These definitions allude to the neutrality in the technologies of the medium of transmission that authorised service providers may deploy or rely on<sup>25</sup> to provide services i.e., fixed technology, wireless technology or any other as deemed appropriate by the service provider. It is in this vein that the Authority has adopted a neutral approach to its authorisation process where a specific technology is not imposed on authorised providers of telecommunications services. The goals are to ensure that there are minimal barriers to entry and to promote competition in a converged telecommunications market.

<sup>25</sup> This is the case for authorised service providers who do not own a network but use the network of an authorised network operator to deliver their services

Notwithstanding the flexibility given to service providers in electing their preferred technology, the Authority has been guided by a definition of technology neutrality which acknowledges that neutrality in regulations can include different regulations for different technological solutions, even where similar services are provided, as the technologies used do not essentially have the same features (TATT 2015).

With the emergence of newer technologies and different business models to provide services, ambiguity sometimes arises with respect to regulatory extension to these services on the premise of technology neutrality. A look at the Authority's application of the principle suggests that technological impartiality is tied to the technologies of the network rather than those of platforms or applications that have been able to separate services from the underlying physical network. This is seen within the "telecommunications service" definition. According to the Act, a "telecommunications service" means "a service using telecommunications" and "telecommunications" include<sup>26</sup> the "transmission, emission or reception of signals, writing, pulses, images, sounds or other intelligence". These activities are performed by the physical network, thus narrowing the scope or application of technology neutrality and its concomitant regulatory oversight to network technologies.

<sup>26</sup> According to statutory interpretation, the word "include" should follow the doctrine: "The inclusion of one is the exclusion of another".

## **9.2 Review of the Fit of Traditional Regulation to OTT Services**

Taking the discussion one step further, one must also consider the fitness of the current framework in achieving the desired regulatory effects within the OTT landscape. In other words, even if OTTs fall under the literal interpretation of the legislative framework, the fact is some OTT providers do not directly employ the use of resources (i.e., spectrum and numbers), thus questioning the applicability of the Act and other regulatory instruments to these services.

In the interest of avoiding the imposition of obsolete regulation, the Authority must, therefore, assess the extent to which regulatory obligations apply to OTT providers. Such assessment can also act as an aid to the interpretation of the Act. For instance, legal requirements establishing conditions for the deployment of networks and/or services, the quality of service, interconnection to the network or service, and other conditions are mandated by primary and subsidiary legislation but may not necessarily apply to some OTT providers who have limited to no control over these. Moreover, due to the unique zero-priced business model that some OTT providers have adopted, many regulatory instruments, such as pricing are irrelevant. In this regard, it may not be suitable to regulate these services, as the existing regulatory framework cannot be practically applied to their business models.

## **9.3 Future Outlook of OTT Regulation**

It is thus clear that OTTs have introduced a level of ambiguity within the legislative framework that has become apparent with the convergence of the market. To circumvent these issues, some jurisdictions such as the European Community are proposing the re-definition of "telecommunications services" to include not only technical but functional aspects as well. The intention is to ensure that consumers are effectively and equally protected when using functionally equivalent services. (European Commission 2016)

From an analytical point of view, it is not difficult to conclude that OTT communication services are a functional substitute for legacy telecommunications services. Similarly, OTT media services have been replacing traditional subscription-based television broadcasting services over a public telecommunications network. Policy makers and regulators, therefore, cannot ignore the potential impact of OTT services, as its exclusion may lead to a narrow definition of the market and likely regulatory gaps.

Furthermore, it has been suggested that the principle of technology neutrality should be reflected in the way services which are functionally equivalent are regulated. “Technology neutrality means that the same regulatory principles should apply regardless of the technology used. Regulations should not be drafted in ‘technological silos’ (Maxwell and Lovells 2014). This alternative<sup>27</sup>

<sup>27</sup> The term “technology neutrality” has several meanings. Within the context described in the previous sections, it is taken to mean the Authority’s neutrality in the technology chosen by a network operator in its operations. This interpretation presents an alternative definition, meaning that the same regulatory principles should apply regardless of the technology used.

interpretation of technology neutrality allows for the inclusion of newer and emerging technologies along with different business models under the ambit of the regulator. It is, therefore, argued that emerging Internet platforms, particularly those that offer services with similar functionalities as traditional communications and media services should be regulated in the same manner. The Authority shall consider the extent to which this interpretation may be applied to a changing industry within which OTTs reside. It should also be noted that both applications of technology neutrality are supported by the Authority’s principle of service neutrality, where a network operator or service provider is not limited to providing a specific service to consumers (TATT 2014).

### **9.3.1 Classification 1: Functionally Equivalent OTT Services**

It has been argued that since some number-based OTTs<sup>28</sup> participate in and subsequently benefit from a publicly assured interoperable ecosystem, they should be treated differently from other OTT services (European Commission 2016). More specifically, where, by reason of their characteristics, these OTTs function equivalently to traditional services, and use numbering resources to connect to the PSTN, the case for regulation can be made. In other words, such OTT services should be regulated in the same manner as traditional services (voice and SMS) with certain minimal concessions obligations<sup>29</sup>. While types of OTT services may comfortably fit within the scope of the regulatory framework, amendments to the framework may be required to ensure efficient sector regulation. OTT service providers under this classification will be required to acquire a service authorisation from the Authority, and where these services use spectrum resources, the provider will be required to apply for an appropriate licence. This will be reflected in the revised Authorisation Framework.

<sup>28</sup> Those which connect to the PSTN

<sup>29</sup> The ITU notes that technologies offering similar services do not necessarily have similar features in all aspects. As such, identical regulations may result in the competitive advantage of one technology over another. Consequently, this may call for slightly differing regulations for different technology solutions in the same market segments.

### **Policy Statement**

- 1. OTTs which are functionally equivalent to traditional services and use numbering resources to connect to the PSTN should be regulated in the same manner as traditional telecommunications services.**
- 2. Amendments to the Authority's Authorisation Framework will be required to reflect classification 1 OTT services.**

### **TTCS Response**

For the small number of OTT services that terminates on a PSTN, such OTT services already compensate PSTN operators. We disagree with the notion that functionally equivalent OTT services should be regulated in the same manner as traditional services because OTT services function in a very different manner to traditional PSTN. As such, regulatory intervention that were effective with PSTN will be ineffective or even harmful to the public when applied to OTTs. See our response to question 13.

## **9.3.2 Classification 2: Other OTT Services**

For other categories of OTT services, that is, which are not functionally equivalent to traditional services, and/or do not use numbering or spectrum resources, sector-specific regulation may not be required to the same extent. Such services may not offer their services for remuneration (therefore making pricing regulation irrelevant) or have control over the quality of the service offered, making the application of QoS obligations irrelevant. In this regard, the Authority may consider taking a light-handed regulatory approach to these services. Amendments to the Authorisation Framework of the Authority will be required to give effect to this.

Even in the presence of limited oversight on the part of the Authority, these services should not necessarily be precluded from facing regulatory constraints within the wider context of the laws and policy objectives of the country. Some key areas where regulatory control is very much relevant and needed in the digital era include, inter alia, cybersecurity, data protection, child pornography, intellectual property rights, national security and privacy, and other public interest matters. While jurisdictional issues can arise in the implementation of these controls, enforcement can take place, where possible, through local ISPs. This may require extensive collaboration with the relevant agencies which are ultimately responsible for establishing breaches and offences within the confines of the laws and policy objectives of Trinidad and Tobago.



## **Policy Statement**

- 1. The Authority may consider taking a light-handed regulatory approach to OTT services not requiring numbering or spectrum resources.**
- 2. Amendments to the Authority's Authorisation Framework will be required to reflect classification 2 OTT services.**
- 3. General regulatory controls should be applied to these services. These include, inter alia, cybersecurity, data protection, child pornography, intellectual property rights, national security and privacy controls.**

## **TTCS Response**

Users and Companies in Trinidad and Tobago have benefited greatly from the use of OTTs in saving time and money, improving efficiency and improving quality of life whether for work or the home, having been free to utilize the latest technologies available globally.

Any form of applying regulatory hurdles because of perceived regulatory power over OTTs will likely backfire as OTTs facing such regulatory hassles or hurdles to operate in a relatively small market would simply block access for Trinidad and Tobago to their OTTs. This would reduce Trinidad and Tobago's ability to compete locally and globally. It would also signal to the wider world that Trinidad and Tobago is more difficult for any ICT/Internet companies to do any business here and such companies should look elsewhere.

Also expecting that enforcement of regulatory controls of OTTs to ISPs is extremely problematic to implement. ISPs can't block certain information being transmitted / stored over an OTT. We again refer to the Internet Society's White Paper "Perspectives on Internet Content Blocking: An Overview" at <https://www.internetsociety.org/doc/internet-content-blocking> : using filters to block access to online content is inefficient, likely to be ineffective, and is prone to generate collateral damage affecting innocent Internet users.

Also, many Internet users use encryption online, including using VPNs to connect to their workplaces. How would TATT via the ISPs be able to access Internet users' information to determine the content, short of having the ISPs/TATT insert themselves into the network. See again our responses to question 1,2,3 regarding what we consider as reasonable traffic management.

The information and comments stated above can be published by the Authority for the purposes of consultation except those which are considered confidential.

Agree

Do not agree

Signature: 

Position of signatory: Assistant Secretary  
(This is only applicable for stakeholder categories **a** to **e**)

All comments should be submitted to the Authority:  
via e-mail to [consultation@tatt.org.tt](mailto:consultation@tatt.org.tt) (in MS Word format) and  
by regular mail or by hand to the Authority's office at #5 Eighth Avenue Extension, Barataria, Trinidad.