DISCUSSION PAPER ON
ANDROID BOXES IN
TRINIDAD AND TOBAGO
(First round)
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1. Introduction

1.1. Background

Recent statistics have shown falling revenues within the subscription TV industry. In response to this, some service providers have claimed the threat of “Android boxes” as a possible explanation for the declining figures, advocating that the Authority intervenes.

An Android TV box, as it is commonly referred to locally, is a set-top box running on an Android operating system. It may also be referred to as a streaming media device (as in the United States) or a Kodi box (as in Europe). Essentially, they are all the same type of device, which enables end users to stream content on the Internet for viewing on a television set.

Typically, Android boxes are sold at a “one-off” price with no recurrent fees and, in many cases, are advertised as a replacement for cable television. In some instances, they are sold with pre-installed software such as Kodi which is an open source media player that acts as a centralised hub for the user’s entertainment. However, for many users, the software’s biggest appeal lies in its add-ons, some of which are legal, such as YouTube and Hulu, whilst others are not. Third-party add-ons and plugins allow easy unencumbered access to pirated content. As a result, users can access copyrighted content such as live sports, latest episodes of TV shows, newest movie premieres, for free. For this reason, Android boxes\(^1\) preloaded with the Kodi media player or other add-ons which provide access to pirated content have been the target of many intellectual property offices’ legal actions around the world.

1.2. Rationale

Android TV boxes have become increasingly popular in Trinidad and Tobago. Retailers have positioned themselves both in the physical and virtual landscape, offering the product in stores as well as online (e.g. on social-media platforms such as Facebook). Consumers are enticed by taglines such as “no more cable bills”, “no dish to install” and “one-time fee”. Additionally, retailers also promise access to local content, particularly popular TV shows like Crime Watch as well as the TV6 News.

\(^1\) It is worth noting here that the Kodi software and the above-discussed add-ons can also be installed on most Internet-connected devices, such as computers and smartphones. Thus, in principle, the findings discussed in this discussion paper can be extended to any device similarly loaded with the Kodi software and add-ons.
Retailers also advertise their products as “locally pre-configured” with the Kodi software and a host of live add-ons (apps), giving thousands of free access to HD movies and premium live TV channels. Some providers even offer a “full software update service”, that is, an after-sale service that updates consumers’ Android boxes, ensuring continuous access to the latest add-ons.

It is worth noting that the above descriptions are not the only features of the Android boxes and consumers may purchase the boxes for reasons unrelated to obtaining access to pirated content. Consumers can use the box to convert their older model televisions into “smart” televisions, allowing users to surf the Internet, watch home videos, etc. On this note, the concern lies with the illegal add-ons to which configured boxes allow easy access to copyrighted content.

This paper focuses on the retailers of these configured boxes, hereinafter referred to as Android boxes.

1.3. Objectives

The objectives of this document are to:
1. Introduce the concept of Android boxes, and their nature and prevalence within the Trinidad and Tobago market.
2. Assess the impact of Android boxes in Trinidad and Tobago from the service provider’s perspective.
3. Assess the impact of Android boxes in Trinidad and Tobago from the consumer’s perspective.
4. Present other countries’ approaches to the issue, especially with respect to its legality.
5. Identify the legislative remit of the Authority in addressing any issues related to Android boxes.
6. Present possible solutions and recommendations that may be undertaken by the Authority.

1.4. Review Cycle

This paper will be revised periodically to meet changing needs, taking into account of technological advancements. The Authority will review this document as necessary and, in consultation with stakeholders, ensure that it is guided by relevant policy guidelines and objectives.
Questions or concerns regarding the maintenance of this document may be directed to the Authority via e-mail to policy@tatt.org.tt

1.5. Consultation Process

In accordance with its *Procedures for Consultation in the Telecommunications Sector of Trinidad and Tobago (2010)*, the Authority will seek the views and opinions of the general public and other stakeholders regarding the proposals made herein. Consideration will be given to comments and recommendations made during the consultation process, and the document will be revised accordingly.

This document will be made available for public consultation for a four (4) week period according to the Authority’s procedures. Comments should be submitted to policy@tatt.org.tt or mailed to:

**Telecommunications Authority of Trinidad and Tobago**

#5, Eighth Avenue Extension, off Twelfth Street,

Barataria, Republic of Trinidad and Tobago
2. Impact of Android Boxes — The Service Provider Perspective

The rise of the Internet has created an alternative distribution channel for media services. Change has also been experienced in the devices used to access the Internet. In addition to traditional media devices such as desktops, laptops and tablets, consumers now have at their disposal a plethora of devices to access online services. These include, *inter alia*, gaming consoles (e.g., Xbox One, PlayStation) and digital media receivers (e.g., Android boxes). Unlike traditional media devices, newer devices, in particular Android boxes, which are a type of media receiver, have garnered much attention from multi-channel subscription service TV broadcasters in Trinidad and Tobago and in some jurisdictions around the globe.

In the context of Trinidad and Tobago, there has been a deluge of Android boxes in the market, as evidenced by advertisements on social and traditional media. While these provide an alternative source of audio visual content for end users, their presence in the market has fuelled complaints by pay TV broadcasters regarding their loss of subscribership and revenue. A look at the data provided to the Authority by the service providers over the past 5 years shows that after successive increases in pay TV subscriptions between 2013 to 2015, this market experienced a small decline in subscriptions in 2016 followed by an increase of 19.4% (approximately 40,000 subscriptions) in 2017. A similar trend was observed in the fixed broadband market. The number of fixed broadband subscriptions increased gradually during the period 2013 to 2015, declined in 2016, and subsequently increased in 2017. Figure 1 illustrates the five-year trend of pay TV subscriptions over the period 2013 – 2017. Figure 2 illustrates the five-year trend of broadband subscriptions for the same period.
In August 2017, the Authority consulted with key stakeholders within the industry to elicit feedback on the proliferation of Android boxes, with specific focus on the impact of the boxes on their business models. At this forum, it was established that, although service providers have experienced falls in revenues and subscriptions, the problem was not specifically brought on by android boxes per se but the installed software giving access to pirated content. The service providers differed in their proposed approaches to the issue. Some expressed support for an interim measure, calling for the blocking of websites hosting pirated content, while others voiced their concerns over the logistical and administrative challenges this option presents. It was also proposed that, with the support of organisations such as World Intellectual Property Organisation (WIPO) and Trinidad and Tobago Broadcasting Association (TTPBA), public education campaigns be deployed, specifically informing consumers of the legal and security risks they are exposed to through the use of these devices and their related software.
3. Impact of Android Boxes — The Consumer Perspective

As the world becomes more digitalised and consumers become more technologically savvy, they are demanding more from their entertainment platforms. Consumers have a myriad of content at their disposal, available to them at any time, in any mix, through many delivery options and devices. Streaming services are becoming exponentially more popular particularly among millennials. This has resulted in a market ripe for streaming devices such as Android boxes to flourish.

Consumers are lured by advertising promising “free” movies and TV shows for a one-time fee to obtain the box. While these boxes can be purchased for a variety of reasons, it is suspected that most users purchase the device to stream content for free. Research indicates consumers may gravitate towards this option, as opposed to legitimately purchasing the content, for a number of reasons. The first reason may be that they are unable or unwilling to pay for streaming content. This is not surprising given price increases occurring within the industry. As an example, in 2016, and again in 2017, some pay TV service providers increased the prices of their cable television packages by approximately 11%.

Another rationale is, that in many instances, the content consumers are interested in is not legally available for viewing within the jurisdiction, or is available only after a delayed period from its initial broadcast. Non-availability or delayed availability of content often occurs as a result of geo-blocking\(^2\) or the “windowing” strategy\(^3\) adopted by broadcasters and film studios when releasing their content into different markets. Additionally, subscription television broadcasters have indicated that, in their attempts to acquire more content, they have encountered problems such as prohibitive costs and US broadcasters’ refusal to offer distribution rights in the Caribbean, mainly because the market is considered too insignificant. As a result, consumers turn to alternative sources to satisfy their entertainment needs.

Thirdly, consumers often do not realise that most of the content available online is illegal and has infringed the copyrights of content owners. Users may rely on the popularity of the devices

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\(^2\) Geo-blocking is a form of technological protection where access to content is restricted based upon the user's geographical location.

\(^3\) The process of “windowing” involves the sale of content through different channels or “windows” (in this case regions) by arranging the sequence of releases based on most profitable order. Thus the “window” with the least expected revenues would experience the greatest delay.
as well as the lack of any enforcement to convince themselves that the services provided are legitimate. Moreover, consumers are often under the impression that piracy is a “victimless crime”; unaware of how the unauthorised use of copyrighted content affects the entertainment industry and the wider economy.

In response to queries of the legality of the boxes, one local retailer advised that “Copyright laws are exempt from temporary reproductions of copyrighted works.” This however may be a misleading statement as many countries have considered streaming as akin to reproduction, thereby challenging the legality of the boxes. It remains to be seen whether this view will be taken in Trinidad and Tobago.

It is worth mentioning that consumers using Android boxes, or any Internet-connected device for that matter, may not fully appreciate the security risks they open themselves to by visiting sites with pirated content via the Kodi software. Experts warn of the increased exposure to malware and other cybersecurity and privacy issues that are typically associated with “pirate” add-ons.
4. The Global Perspective

In 2016, Canadian cable companies Bell Canada, Rogers Communications Canada Inc. and other cable providers filed, and were granted, in the Federal Court an injunction against at least 45 Canadian dealers who were selling fully loaded Android boxes. The court ordered a temporary ban on the sale of the boxes with pre-installed and configured apps that allowed customers to watch copyrighted content for minimum cost. The injunction was later upheld by the Court of Appeal after an appeal of the first ruling by the defendants.

In the United Kingdom, there have been convictions by the court under the common law for the sale, supply or use of set-top boxes used for illicit streaming. For instance, the Premier League received a conviction against two persons in the case of R v William O’Leary and Terence O’Reilly (2016) under conspiracy to defraud (common law offence). In that case, the defendants were held liable for supplying devices to pubs and individuals, which facilitated piracy. The court held that the defendants conspired with persons unknown to defraud the broadcasters of pay TV services, the Premier League Football Association and other persons, by supplying devices and services that facilitated the viewing of pay TV without appropriate payment to said broadcasters.

In June 2015, Australia amended its copyright law to empower the Federal Court of Australia to order Internet service providers to block non-domestic websites whose primary purpose is to infringe or to facilitate the infringement of copyright (whether or not in Australia). In August 2017, the Court handed down a judgement ordering several telecommunications service providers to block access to over one hundred international websites that allowed users to download pirated TV shows and movies.

In April 2017, the European Court of Justice ruled in the case of Stichting Brein v Jack Frederik Wullems, acting under the name of Filmspeler, that selling devices pre-configured to obtain copyright-infringing content is illegal. This case was referred to the European Court by the Dutch District Court in 2015 for its consideration as to whether it was illegal to sell a product (media player) with pre-installed add-ons containing hyperlinks to websites from where copyrighted works such as movies, television shows and live broadcasts are made available without the copyright holders’ permission. According to the European Court ruling, the streaming of copyrighted works that are obtained from websites without obtaining permission
from copyright holders can be considered illegal as it infringes on the European Union’s Copyright Directive No. 2001/29.
5. Discussion on the Legislative Remit of the Authority

This section explores the legislative remit of the Authority. It examines whether specific sections of the legislative and regulatory framework provide solutions to the challenges presented by the proliferation of android boxes and their associated software in Trinidad and Tobago.

5.1. Authorisation of Broadcasting Services

The Authority is the regulator of the telecommunications and broadcasting sectors in Trinidad and Tobago. These sectors include, but are not limited to, Internet service providers, free-to-air television broadcasters and subscription cable television broadcasters. The Authority authorises telecommunications and broadcast service providers in their provision of a network and/or service. In addition, while the Authority regulates the provision of Internet service, it does not regulate the content that is accessible on the Internet.

Section 3(b) and 3(c) of the Telecommunications Act, Chap. 47:31 (the Act), establishes conditions for, inter alia:

- “the facilitation of the orderly development of a telecommunications system that serves to safeguard, enrich and strengthen the national, social, cultural and economic well-being of the society, and
- promoting and protecting the interests of the public”

Broadcasting service is defined under the Act 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”.

With the advent of new technologies, broadcast content is now accessible on over-the-top (OTT)-streaming devices like Android boxes. These devices, inclusive of their (legal and illegal) add-ons, give access to content that can be described as “functionally equivalent” to subscription broadcasting. In contrast to the traditional model, an OTT media service entails the distribution of video and audio data over the Internet without any involvement by the operator (unmanaged) and, unlike IPTV, there is no dedicated network or infrastructure provided by the operator. Currently, the Authority does not regulate entities who offer services
over the Internet in this manner, therefore any regulatory obligations under the current framework will not be applicable to them.

5.2. Equipment Certification and Approval

With respect to equipment utilised by the sectors’ service providers, the Authority is mandated to test and certify telecommunications and broadcasting equipment, to ensure compliance with international standards, and environmental, health and safety regulations.

Terminal equipment is defined under the Act as:

“equipment means equipment on the user’s side of the network termination point that is connected to a telecommunications network by wire, wireless, optical or electromagnetic means and with which a user can originate, process or terminate telecommunications.”

The Authority’s remit with respect to terminal equipment is to ensure that such equipment meets the technical requirements to interact with the networks provided by the individual authorised providers. This function falls under the scope of the Authority’s equipment certification activity. The criteria the Authority must ensure that such equipment adheres to are set out in section 32 of the Act.

“Any terminal equipment may be connected to a public telecommunications network where the Authority, after consultation with the concessionaire, has certified such terminal equipment as—

(a) being safe for the user;

(b) being in compliance with international standards, and environmental health and safety standards including standards for electromagnetic radiation and emissions;

(c) meeting requirements of electromagnetic compatibility if specified;

(d) not posing a risk of harm to the network;

(e) effectively utilising the electromagnetic spectrum and preventing interference between satellite and terrestrial-based systems and between terrestrial systems; and
In addition to terminal equipment, other equipment to be installed or used for a public telecommunications network or telecommunications service or broadcasting service must also fulfil the criteria stipulated in section 32. Section 48(1) of the Act states:

“The Authority shall, for the purpose of certifying or approving terminal equipment and other equipment to be installed or used for a public telecommunications network or telecommunications service or broadcasting service determine whether such equipment fulfils the criteria stipulated in section 32 and such other requirements as the Authority may prescribe.”

The Authority therefore certifies or approves equipment to be installed or used for a telecommunications or broadcasting service within the criteria set out in section 32. This is for the purpose of ensuring that all equipment will be unlikely to cause harmful interference to other means of telecommunication and/or are safe for users.

As a result, certification of Android boxes, if done, will be limited to the technical operating parameters of the device and will not address legal factors such as fully loaded devices equipped with software which provides access to copyrighted material.

5.3. Intellectual Property Infringement

In accordance with the Concession for the Operation of a Public Telecommunications Network and/or provision of Public Telecommunications and/or Broadcasting Services, concessionaires should not infringe the intellectual property rights of any person in the broadcast of any of its programmes. Concession D.13 states as follows:

“The concessionaire shall not broadcast any programmes, information or other material without first obtaining all required permissions from the relevant owners of any intellectual property in such programmes, information and other material, and shall not otherwise infringe the intellectual property rights of any person.”
Furthermore, in accordance with the concession document, all concessionaires are required to adhere to the laws of Trinidad and Tobago, as indicated by concession condition A.2:

“The concessionaire shall comply with the Act, all regulations or other instruments made under the Act, the conditions of this Concession, and all laws in force from time to time in the Republic of Trinidad and Tobago.”

All authorised telecommunications and broadcast service providers are, therefore, required to comply with the Copyright Act of Trinidad and Tobago. However, Android box retailers do not hold a concession with the Authority and as such, they are not under any obligation to comply with the above-mentioned concession conditions. Notwithstanding this, as an entity they must comply with the wider laws of Trinidad and Tobago, inclusive of the Copyright Act.

5.3.1 Copyright Act of Trinidad and Tobago

The Copyright Act of Trinidad and Tobago Chap. 82:80 (governs the rights provided by copyright and related rights. The creators of works (e.g. sound recordings, films, television shows etc.), such as performers, producers and broadcasting organisations, have certain rights under copyright law. The legislative framework allows creators to control and/or be compensated for the various ways in which their work is used and enjoyed by others.

Creators want to maintain control over their works, so the main idea behind copyright is to prevent others from copying those works without permission, in whatever form that copying may take. The creators of the works will hold the exclusive right to use or authorise others to use the work on agreed terms.

According to the Copyright Act, broadcasting is “the communication of a work, a performance or a sound recording to the public in any country or territory by wireless transmission, including transmission by satellite, and “broadcast” and “rebroadcasting” have corresponding meanings”.

In accordance with section 24(1) of the Copyright Act a broadcasting organisation has the right to authorise or prohibit any of the following acts:

“(a) the rebroadcasting of its broadcast;

(b) the communication to the public of its broadcast;
(c) the fixation of its broadcast;

(d) the reproduction of a fixation of its broadcast.”

It is to be noted that even broadcasting organisations that are headquartered outside of Trinidad and Tobago are protected under the provisions of the Copyright Act, by virtue of any international convention or agreement to which Trinidad and Tobago is a party. For instance, the works produced by a broadcasting organisation such as HBO would be protected under the Copyright Act, as the 55(4) states:

“The provisions of this Act shall also apply to performers, producers of sound recordings and broadcasting organisations protected by virtue of and in accordance with any international convention or other international agreement to which Trinidad and Tobago is party.”

Additionally, Trinidad and Tobago is party to various copyright related international treaties. More specifically, we are members of the two WIPO treaties that govern mutual intellectual property law, minimum protection, and enforcement requirements that were designed to strengthen copyright protections on the Internet. These are the WIPO Copyright Treaty (WCT) and the WIPO Performers and Producers Rights Treaty (WPPT) of 1996. These are the main international treaties that address copyright and related rights on the Internet and clarify that existing rights continue to apply in the digital environment.

Being a party to such international treaties means that there is a requirement for Trinidad and Tobago to provide full protection within our territory to local as well as foreign rights holders.

Furthermore, pursuant to the Copyright Act, the following shall constitute an infringement of copyrights and neighbouring rights:

the manufacture or importation for sale or rental of any device or means specifically designed or adapted to circumvent any device or means intended to prevent or restrict reproduction of a work or to impair the quality of copies made (the latter device or means hereinafter referred to as “copy-protection or copy-management device or means”)
Therefore, a fully loaded Android box will include add-ons that enable users to access illegal streams through software such as Kodi. Whether there is a breach of the above-mentioned clause is dependent on whether it can be successfully argued that not only has the broadcast content rights holder developed a means of restricting the reproduction\(^4\) of their broadcast but also if a fully loaded android box has been adapted to circumvent said means.

Additionally, an infringement of copyrights and neighbouring rights also constitute:

\[
\text{the manufacture or importation for sale or rental of any device or means that is susceptible to enable or assist the reception of an encrypted programme, which is broadcast or otherwise communicated to the public, including by satellite, by those who are not entitled to receive the programme.}
\]

To declare Android boxes as a copyright infringement device, in accordance with 34A (1) (b), it must first be determined that the boxes facilitate the unauthorised reception of encrypted broadcast content.

It should be noted that the Authority’s regulatory scope is limited to authorised telecommunications and broadcast service providers, and any breach of the Copyright Act by persons who are not said providers will fall under the jurisdiction of the Intellectual Property Office of Trinidad and Tobago.

5.3.2 **Blocking of copyrighted material by service providers**

As it relates to websites which host copyrighted material illegally, Android boxes are one of many devices used to access copyrighted material on websites. Therefore, an outright ban on the sale of the boxes only removes one of the many avenues (e.g., cell phones, tablets and gaming consoles) available to users to access illegal content. We have noted that, in some jurisdictions, as an alternative to or in addition to regulating the device, the courts are

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\(^4\) Reproduction is the making of one or more copies of a work or sound recording in any material form, including any permanent or temporary storage of the work or sound recording in electronic form.
empowered under the country’s copyright legislation to order Internet service providers to block copyright-infringing websites\(^5\). Local Internet Service Providers (ISPs) have expressed that they do not see themselves as arbiters of what is lawful or unlawful content. As a result, they have indicated that they will be amenable to blocking access to websites hosting illegal content as declared by the court.

However, it should also be noted that the Copyright Act only gives a general power to the court to grant injunctions prohibiting copyright infringement and not a specific power to order an Internet service provider to block access, as has been observed in other jurisdictions.

Section 38(1) of the Copyright Act states as follows:

> “The Court shall have the authority—

> (a) to grant injunctions to prohibit the committing, or continuation of committing, of an infringement of any right protected under this Act”

\(^5\) Section 97(1) UK’s Copyright, Designs and Patents Act 1988; Australia’s Copyright Amendment (Online Infringement) Act 2015
6. Recommendations

Given the limitations of the legislative and regulatory remit of the Authority discussed in the previous section, the Authority recommends adopting persuasive measures which focus on the promotion of a culture that respects and values the creative work of others. This involves the adoption of an approach that firstly, increases consumers’ sensitivity to the protection of copyrighted content and, secondly, encourages consumers to opt for legal channels when seeking to meet their entertainment needs. The latter may require reforms within the subscription TV market that ensure consumers are receiving value services at appropriately priced levels that match their demand. Further, the recommended approach calls for the Authority’s collaboration with relevant agencies to ensure the enforcement of copyright laws.

6.1. Consumer Awareness Campaigns

The Authority may consider collaborating with the Intellectual Property Office of Trinidad and Tobago and other relevant interest groups to raise awareness to help consumers understand the value of property rights. In this regard, consumer awareness campaigns can be modelled after those in other jurisdictions where there has been some success with anti-piracy campaigns. These include both campaigns geared at long-term and short-term solutions such as Italy’s “Rispettiamo La Creativita” (Respect Creativity) and the UK’s “Get it right from a genuine site” campaigns. This action, however, may be of limited effect if local consumers cannot see a direct benefit to them arising from the protection of a foreign-based industry.

Perhaps a more cogent approach would be to highlight to consumers and retailers of fully loaded Android boxes the various forms of exposure they may likely face by engaging in the infringements of copyrighted material. Measures such as educating consumers on what forms of content access are illegal, and more importantly, where legal content can be accessed, both offline and online can be undertaken.

Likewise, consumers can also be warned of potential risks to malware and other security compromising factors that are associated with Kodi and add-ons.
6.2. Market-Based Solutions

The Authority may also consider the encouragement of a market-based approach to this issue, that is, encouraging service providers to set prices commensurate with what consumers are willing to pay. Given the price increases by service providers within the context of an economic downturn, it is worth considering whether or not prices are currently aligned to existing market conditions. Where determined otherwise, the solution may be better-priced subscription TV services. This solution, however, may not prove effective, particularly where consumers are unable to access the content they want. Service providers should thus be prompted to develop attractive services that offer the content consumers demand, on platforms they demand it, e.g. online. Accessing and delivering content that consumers demand, however, may require concerted commercial actions by key stakeholders to overcome the major obstacles they face, such as restricted access to desired content based on our jurisdiction. On that issue, the Authority can assist to negotiate with foreign content providers to offer their services to the Caribbean.

6.3. Collaboration with Relevant Agencies

In addition to the above, the Authority also proposes collaborating with relevant agencies to ensure the protection of copyrighted content in Trinidad and Tobago. The agency responsible for this is the Intellectual Property Office (IPO). This is a local government agency within the Ministry of Legal Affairs that is charged with the responsibility of handling the registration and conflict resolution of intellectual property rights. In this regard, the Authority proposes collaborating with this agency to encourage actions towards the identification and enforcement of any copyright infringement laws, of which the sale or rental of Android boxes may violate (see section 5.3.1 of this document).

Additionally, the Authority may liaise with agencies such as Alianza contra Piratería de Televisión Paga the ‘Alianza’\(^6\) to explore options aimed at monitoring and investigating cases of copyright infringements. This may include identifying websites which host unlawful content, specifically unauthorised copyrighted material. Subsequent to this, the Authority can then advocate enforcement actions against copyright infringements by the relevant authorities.

\(^6\) This is an association created by a group of pay-TV operators, programmers and technology providers to combat piracy that takes place through the unlawful use of free-to-air receivers