

Caribbean ICT Roadshow

The Regulatory Agenda in Trinidad and Tobago

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Overview

- **TATT's Mandate**
- **Liberalisation Strategies**
- **Authorisation Framework**
- **Current Market Environment**
- **Regulatory Initiatives**
- **Philosophy**

Introduction

TATT's Mandate

- “... to guide the sector’s transformation from virtual monopoly, in which Telecommunications Services of Trinidad and Tobago is the principal provider of telecommunications services, to a competitive environment,
- to monitor and regulate the sector so transformed and, in particular,
- to prevent anti-competitive practices.”

- Preamble in Telecommunications Act

Introduction

Objects of the Telecommunications Act

- To create an open market for telecommunications
- To create conditions for fair competition
- To facilitate the orderly development of telecommunications
- To promote and protect the interests of the public
- To promote universal access
- To encourage investment and innovation in the telecommunications sector
- To regulate broadcasting services consistent with the provisions of sections 4 and 5 of the constitution

Liberalisation Strategies

- **Simultaneous opening of key markets**
- **Adoption of a Service/Technology neutral approach**
- **Adoption of an Enabling Framework for the authorisation of telecommunications and broadcasting networks and services**
- **Transparent and Non-Discriminatory approach**
- **No restrictions on foreign ownership**

Authorisation Framework

➤ Concession Classification Types:

- Type 1 – Network Only Concession
- Type 2 – Network and Service Concession
- Type 3 – Virtual Network and Service Concession
- Type 4 – Specific Telecommunications Service Concession
- Type 5 – Broadcasting Service Concession

➤ Concession Territorial Coverage:

- National basis
- Major Territorial basis
- Minor Territorial basis
- Niche

Authorisation Framework

➤ Licence Classification Types:

- Spectrum Licence – the exclusive assignment of spectrum which can be used and re-used within a specified service area.
- Station Licence - non-exclusive assignment of spectrum, in accordance with specific technical operating parameters
- Class Licence – general authorisation for the use of specific radiocommunications devices (e.g. low-powered or low interference potential radiocommunications devices)

Licences Granted

Licences		
Spectrum	Cellular Mobile	2
	Land Mobile	182
	Point-to-Point	11
	Point-to-Multipoint	13
General Radiocommunications	Satellite Earth Stations	24
	Amateur Stations	288
	Maritime Stations	59
	Aeronautical Stations	86
Broadcasting		55
Special Events		13
Total		733

Concessions Awarded

CONCESSIONS AWARDED BY THE AUTHORITY TO DATE	
Public Domestic <u>Fixed</u> Telecommunications Networks/Services*	7
Public Domestic <u>Mobile</u> Telecommunications Networks/Services*	2
Public <u>International</u> Telecommunications Networks/Services	10
Broadcasting Services	55
TOTAL	74

* Also authorised to provide Internet services

Fixed Voice Market

➤ There are seven (7) authorised operators to provide fixed domestic telecommunications services to the public:

- TSTT
 - FLOW
- } Currently providing fixed voice services
- ICNTT
 - TRICO
 - Computer Technologies Services Limited
 - RVR International Limited

➤TSTT provides services through their PSTN while FLOW uses its cable television network (wired technologies)

➤Broadband Wireless Access auction held in 2008 – Awarded to Greendot, Telstar, Digicel and TSTT

➤Broadband Wireless Access (BWA) auctions winners have the ability to provide fixed voice services using wireless technologies

Mobile Market

- **There are two (2) authorised operators to provide public mobile domestic telecommunications services to the public:**
 - **Bmobile**
 - **Digicel**

- **Coverage expands approximately 98% of Trinidad and Tobago**

Internet Market

➤ There are four (4) operational and authorised providers of Internet services:

▪TSTT*

▪FLOW

▪Green Dot

▪bmobile*

} Fixed Internet

▪Digicel

} Mobile Internet

➤ Internet operators also providing services (authorisation underway):

▪360 Communications

▪Lisa Communications

▪Open Telecom

▪Illuminat

▪Airlink

➤ Launch of BWA services

*TSTT and bmobile are counted as one concessionaire

Fixed Wired Broadband

- There are four (4) operational providers of fixed wired broadband Internet services:
 - TSTT
 - FLOW
 - Lisa
 - Illuminat
- Speeds of the various operators range between 256kbps to 15Mbps
- While speeds have increased, rates have significantly decreased. Examples of residential rates:
 - 256kbps approx. \$80/mth
 - 15Mbps approx. \$690/mth
- The GoRTT's Universality Policy proposes 512kbps as minimum speed

Fixed Wireless Broadband

- Auctions were held in 2008 and 2009 for the provision of Broadband Wireless Access services (BWA)
- Spectrum awarded in 700 MHz, 2.3GHz, 2.5GHz bands
- Winners of the auction included – Green Dot, Telestar, TSTT and Digicel
- Green Dot currently offering services to the public
- Other service providers are in the process of developing their networks. Services to be launched in the near future

International Access Facilities

➤ Satellite

- International systems (INTELSAT, PANAMSAT etc)
- Private satellite systems (VSATs)

➤ Submarine Fibre Optic Cable

- Southern Caribbean Fibre
- Eastern Caribbean Fibre System
- Columbus International
- Americas I
- Americas II
- Trinidad to Guyana/Suriname (planned)

International Bandwidth Capacity

➤ Benefits of increased international bandwidth capacity:

- Lower prices for Internet bandwidth
- E-commerce activities
- Video streaming capabilities
- Dedicated Internet Access Lines
- Private Leased Circuits
- Data Hosting
- Higher transaction speeds

Subscription Television Market

- There are seven (7) operational and authorised providers of subscription television broadcasting services:
 - Green Dot (national)
 - FLOW (national)
 - DirecTV (national)
 - ICNTT (major territorial)
 - TRICO (minor territorial)
 - RVR International (niche – Princes Town and Rio Claro)
 - Computer Technologies and Services (niche – Mayaro and Guayaguayare)

- TSTT is yet to launch its IPTV services

Free to Air Radio & TV Broadcasters

➤ Free to Air Radio:

- 37 FM concessionaires
- 1 AM concessionaire

➤ Free to Air TV:

▪ 9 concessionaires:

- Advance Community Television Network Limited (ACTN)
- Caribbean Communications Network Limited (TV6),
- Gayelle Limited,
- Caribbean New Media Group (CNMG),
- Trinidad Publishing Company Limited
- Parliament of the Republic of Trinidad and Tobago
- Synergy Entertainment Network Limited
- World Indian Network Television Limited (WINTV), and
- Government of the Republic of Trinidad and Tobago (GoRTT)

Regulatory Initiatives For Broadband

Development of National Spectrum Plan for the provision of Wireless services.

- The National Plan includes a specific Spectrum Plan for the accommodation of BWA services to provide broadband Internet access, subscription broadcasting and *fixed* telephony services.
- This Plan includes:
 - The 2.4 GHz and 5.8 GHz bands (which can be used for WiFi)
 - The 700 MHz, 12 GHz and 28 GHz for BWA Services
 - The 2.3 GHz, 2.5 GHz and 3.5 GHz bands (which can be used for WiMAX)

Regulatory Initiatives for Broadband

Universality

- To provide basic telecommunications services to un-served and under-served areas in T&T.
- **Conducted Digital Divide Survey in 2007:**
 - Trinidad and Tobago DOI = 0.6315
 - as compared with 0.50 in 2006 (a 26% increase).

Service Indicator	Country Average
Households with access to Fixed line telephones	73%
Persons with a mobile phone	93%
Persons regularly using the Internet	33%

Regulatory Initiatives For Broadband

- **Increased Off-Island Capacity**
 - Opening of International market to new network facilities Providers (two new fiber systems)
- **Encouraged provisioning of Triple Play Services by Fixed Network and Services Providers**
- **Awarded Concessions for BWA Services**
 - Opened the 2.4GHz and 5.8 GHz Bands (Wi-Fi) - 2006
 - Awarded Concessions in 700 MHz and 12GHZ Band for Broadband Wireless Internet and Subscription TV - 2007
 - in the 2.3GHz and 2.5GHz Bands also

Regulatory Initiatives For Broadband

Digital Dividend

- The Authority is currently formulating a strategy for Analog-to-Digital Terrestrial Television switch-over, which will be consulted upon with key stakeholders
- The Authority anticipates that more spectrum in the UHF Broadcasting bands after this switch-over, for wireless broadband services.

Future Outlook

➤ Fixed Voice market:

- continued growth as FLOW rolls out its digital services throughout Trinidad and Tobago
- launch of BWA services

➤ Mobile market:

- significant opportunities for growth in the mobile data market

➤ Internet market:

- broadband market to continue expanding as service providers offer faster speeds at lower prices
- launch of BWA services

➤ Broadcasting market:

- Continued growth as competition increases in the digital market

Future Outlook

➤ **Universality:**

- **Implementation of a Universality framework to rollout infrastructure and services to communities that are considered economically unfeasible**
- **Provision of services to particular population groups including the differently-abled**

Summary of Approach

- Technology Neutral Approach
- Simultaneous Liberalisation
- Creating and enabling environment
 - Regulatory Framework
- Service Neutrality where applicable
- Consultative approach
- Strategic Planning with Flexibility

Philosophy

- The only person we control is ourselves
 - Where does the problem lie
- As promoters of ICT what can each of us as an individual do
- We need to translate our language in order to reach our audiences
- Never forget your dreams



Thank You

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