



## **ADAPTING** to Changing Times

"TATT is proud of its role played to date in ensuring that Trinidad and Tobago has kept pace with global developments, adhering to industry standards and best practice whilst meeting the burgeoning and rapidly evolving demand from service providers and consumers." Mr. Selby Wilson, Chairman, Board of Directors of TATT stated in TATT's 2014 Annual Report

Over the last decade, the telecommunications and broadcasting landscape internationally has seen progressive change, information and Communication Technology (IFC) development has fundamentally shifted the way in which we communicate, moving us from a world where having a fixed telephone was the main form of communication, to a mobile-first centric world.

Adapting to these changes, the Telecommunications Authority of Triridad and Tobago (TATT) has steadfastly pursued legislative and strategic policy development, modernisation of sector infrastructure, service and standards improvements, coupled with robust regulatory oversight to ensure significant market development in the sector whilst driving innovation and sustainability.

Steady Growth
As a result, the telecommunications and broadcasting sectors
have enjoyed steady growth, moving from an estimated
US\$357 million in gross revenues generated in 2004 to an
estimated US\$881.5 million in 2014.

10,700 subscriptions moving speedily to 450,624 as at December 2013.

The trend continued into 2014 with preliminary data gathered for TATT's Annual Market Report 2014: The telecommunications and broadcasting sectors, show that as at December 2014, mobile internet subscriptions rose to 570,000 from \$450,624 as at December 2013, and mobile voice subscription increased to 1,980,000 from 1,943,873 as at December 2013. This has resulted in the recent World Economic Forum's, Global Information Technology Report out of one hundred and forty-three (143) countries for mobile telephone subscriptions.

Growth to continue

It is anticipated that this rate of growth will continue over the
next few years due to increased network enhancements by
providers, innovative bundle packages of data and services
on offer and increased use of smart devices. Communication
is no longer constrained by distance and time. Having
affordable and easy access to Internet and mobile services
has fostered the cultural shift to connected living where with
a keystroke we communicate with anyone, anywhere during
the conduct our daily lives.

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In 2004 there were approximately 924,059 mobile subscriptions and by the end of 2013 that figure increased to a whopping 1.94 million. Mobile Internet came on the scene in 2007 with just over







TATT recently acquired a new Spectrum Monitoring System 6MS) in order to effective and efficiently perform its function as the manager of his country's spectrum resource. The system is composed of two (2) mobile monitoring withins and three (3) fixed monitoring statiors. The fixed stations at Mt. Hope Medical Sciences Complex and Swell were uppsaded to be new system, which very soon at hird station in Todaya will be completed. TATT invested in the SMS to monitor rade frequencies, in order to manage systems used and occur unatherized users. The new SMS engines the dold system the

The new SMS can monitor between 20 MHz to 8000 MHz spectrum ranges, whereas the old system was only able to monitor up to 3000 MHz. The new SMS also includes additional features and functionalities, such as improved capacity to accurately locate transmitters.











BYTES



During the last ten years handsets have evolved from capable of only voice calling metaging, to "smart" mobile which have the following capati which have the following capati Take hind definition circues

Suff the internet for news, stock quotes etc.
Play games
Run mobile applications ("apps")
Watch television





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# RADIO AND TELEVISION TALK SHOWS

"What is news? What is it that an intelligen

Mr. Wison suggested the best approach in She advised keen attention needs to be paid to striving to overcome these challenging issues, is matters of accuracy, privacy and the treatment of

BYTES





**TATT** Targets Enhanced Consumer Focus In A Demand Driven Market

Consumer demand has created exponential growth in the glob Information and Communication Technologies (ICT) market ow the past few decades.

New technologies and services are rapidly emerging as consumers seek more and efficient ways of doing business, conducting research, seeking solutions to sustained development projects in wealth producing sectors, along with satisfying the need to communicate and be entertained.

Mobile broadband has been identified by the International Telecommunications. Union (ITU) as the fastest growing

In a recent release the ITU stated that the number of mobile phone subscriptions now exceeds the world's total population of around seven billion, whilst active mobile broadband subscriptions exceed 2.1 billion – three times higher than the 700

Figures on Trinidad and Tobago's ICT sector released by the Telecommunications Authority of Trinidad and Tobago (TATT) in its annual and quarterly reports on the telecommunications and broadcasting sectors similarly indicate that the pace of growth continues to surge. In the mobile telephony market the levels of subscriptions increased from \$30,000 subscriptions in 2004 to 30,000 subscriptions in creased from \$4000 subscriptions in 2004 to 1000 subscriptions in 2004 to 1000 subscriptions in 2004 to 1000 subscriptions in 1000 subscr 1,980,000 subscribers as at December 2014 – a mere ten year

in fact, this country's telecommunications and broadcasting sectors generated an estimated TT\$5.63 billion in 2014, an oncease of 1.9 percent over the previous year. This equates to approximately 3.1 percent of Trinidad and Tobago's Gross Demonstrate (TDR).

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and Consumer Delight. TATT, as the organization
and broadcasting sectors, has focused to development
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strategies over this planning cycle on strengthening its
epidatine and other regulatory instruments to drive greater
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Building investor confidence

 create a mutually beneficial environment for consumers, providers and future investors.
 develop a healthy equilibrium between industry growth and

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This Caribbean Telecommunications Union (CTU) is an intergovernmental organisation that contributes significantly to the development of the telecommunications sector within the Caribbean region. TATT participated in CTUs 25th Anniversary ICT Week themed "Celebraring our past; Committing to our future" at the HYATT Regency Trinidad. This event was aimed at highlighting the tremendous potential of ICTs to transform every sphere of endeavour and to present practical solitions for fostering ICT-enabled Caribbean Development.

Key local and regional ICT personnel participated in panel discussions and delivered presentations to an eclectic gathering of visitors from the region. These visitors were also provided with the opportunity to view exhibits mounted by various local organisations including TATT, (GovTT and NIHERST.

At this event, companies presented data sets created by their organiSations with the aim of allowing developers to create applications to make the data sets more user-friendly.

Ms. Annie Baldeo, Executive Officer Policy, Planning and Market Economics (Ag.) at TATT presented on this organisation's 2013 Digital Divide Survey Report. The digital divide is the gap that exists between those persons who have access to ICTs and those who do not.

The report outlined the extent of the gap that exists in Trinidad and in Tobago on the national and community levels.

Of great interest at the event was a presentation on the open data set related to TATT's RFR measurement programme, for cellular sites throughout the country. This presentation was delivered by Mr. Isaf Ali, Telecommunications Engineer (TATT).

Participants were provided with an opportunity to learn about the RFR standard and how RFR testing is conducted on the 653 operational relulus sites throughout the country, to ensure providers of telecommunications services abole by the interim maximum permissible exposure MFD limits.

UWI Code Sprint
Using the raw data generated from the radio-frequency relation
measurements, Mr. Ali made recommendations to the "UMI Code Sprint
Competition" for attendees to develop source codes for the fallowing to:

- 1. Digitally design a graphical presentation on a map of cellular sites.
  2. Create an application that will allow hovering a mouse over a particular cellular site, to provide throwup site data such as the site ID, name, address, and location coordinates.
  3. Facilitate indicator readings by dicking on a site to access RFR measurements by dates, power density, and distance along with a photograph of the site.
  4. Develop an analytic tool for trend analysis that will provide, for example, RFR emission increases over time and statistical data such as warrage RFR readings). The tool will allow users to entercan address or location coordinates to display the obsest cellular site.

  The IRM'E-code finate services are considered.

The interim limit for RFR was recommended after TATT conducted a comparative analysis of the Federal Communications Commission (FCC) and the International Commission on Non-Ionising Radiation Protection (ICNIRP) standards to determine the final choice of standards to be adopted in Trinidad and Tobago. Mr. Ali in his presentation outlined future considerations on how the data measurement for RFR can be utilised.

TATES

## Cyber Safety Awareness What happens on-line stays on-line



