



# Regulating in the Convergence Era


## The Mauritian Experience

Thursday, August 09, 2007

## Introduction


- There is no precise definition to convergence, but in broad terms, it refers to the integration of the traditionally distinct industries of telecoms, broadcasting and IT.
- Convergence is also evident within industries themselves blurring the distinction between different market segments e.g. the convergence of Fixed and Mobile services within the telecoms industry.
- Technological advancement such as digitization and economic reforms such as liberalization are believed to be the main drivers to convergence. These same drivers, backed by an appropriate legal and regulatory framework, have allowed Mauritius to embark itself on the convergence path.



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## Introduction (Cont.)

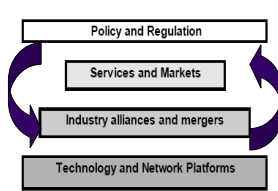
- Our telecoms sector was liberalised in January 2003, preceded by the introduction of a new legislation – the Information and Communication Technologies Act 2001. This provided for a new regulatory framework.
- The realities of convergence began to be felt soon after liberalisation with new players making their entrance into the market, introducing new technologies and applications.
- The benefits of convergence are plenty, including wider range of business options, better price and quality for consumers, and optimum use of infrastructure
- Convergence along with its benefits is also accompanied by several regulatory challenges. Today the question that arises is **whether our present policy/regulatory framework is capable of sustaining the pace at which convergence is happening?**



Thursday, August 09, 2007

## The Layers of Convergence


- In order to assess the readiness of our framework to the phenomenon of convergence, the degree of convergence at different layers should be determined.



□The phenomenon of convergence can be seen at the levels of technology, industry, services and markets

□However convergence at one level does NOT inevitably lead to the same degree of convergence at other levels

□Similarly, convergence in technologies, industries, services or markets will NOT necessarily lead to a need for a uniform regulatory environment




Thursday, August 09, 2007

## Technology Convergence

- Along with digitization, the Internet Protocol has been a key driver for technological convergence to happen in Mauritius.
- Technological Convergence witnessed in several segments e.g. Mobile
  - *Until April 2002, the analog European Total Access System (ETACS) was in use in Mauritius. The system was thereafter switched off to be replaced by the digital GSM network. The GSM network was further enhanced to introduce IP-based systems such as GPRS and 3G in early 2005.*


*These new technologies allow several applications such as voice, data and video to be offered over one platform. Moreover terminal convergence is now evident with the mobile phone being an all-in-one device.*



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## Technology Convergence (Cont.)

- Since 2002, Mauritius has been connected to the SAFE submarine cable, providing access to the global Internet.
- The Internet has been a medium of carriage not only for data but increasingly for international voice services, in the form of Internet Telephony. 7 out of 8 International telephony service providers offer Internet Telephony to the public in Mauritius.
- Another technological innovation has been the IPTV with ADSL as the medium of transport.



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## Service/Market Convergence

- Driven by market demands
- There has been a shift in the market structure from the previously vertical integration – subsequent unbundling of services from infrastructure
- Diversification of core businesses to offer complementary services, for example, the entry of telecom operators into areas of internet services or TV services

Operator	Network	Service	Components
Mauritius Telecom	PSTN / DATA	My.T (Triple-play)	Voice, VoD, TV, Internet
Emtel	PLMN / DATA	Emtel 3G Packages	Voice, Mobile TV, Internet
MTML	PSTN / PLMN / DATA	Wireless Fixed & Mobile services	Voice, Internet
Cellplus	PLMN / DATA	Cellplus Data Packages	Voice, Internet

Thursday, August 09, 2007



## Policy/Regulatory Convergence

- The Telecommunications Act 1998 was repealed in favour of ICT Act 2001
- ICT Act recognizes the synergy between telecommunications, IT and multimedia
- The ICT Act established the ICT Authority to replace the former Mauritius Telecommunications Authority (MTA)
- Other legislations came into force: Independent Broadcasting Authority (IBA) Act 2000; Electronic Transaction Act 2000; Postal Services Act 2002; Computer Misuse and Cyber-Crime Act 2003
- A technology-neutral policy was adopted

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## Policy/Regulatory Convergence (Cont.)

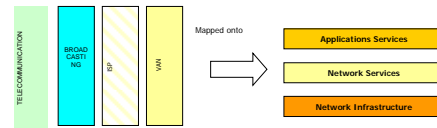
- The licensing regime as per Telecommunications Act 1998 was technology-based e.g. distinct licences issued to PLMN operators using GSM and UMTS respectively.
- Moreover the licensing model reflected a vertically integrated market structure.
- The new licensing regime introduced in July 2003 is based on the principle of technology neutrality. Moreover the licensing model was tailored to reflect a horizontally integrated market structure.
- Three types of commercial licenses have been defined as follows:-  
Type A: Network Infrastructure Provider License  
Type B: Networking Services Provider License  
Type C: Network Application Services Provider License

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## Policy/Regulatory Convergence (Cont.)

Shift from vertical to horizontal model



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## Is the Current Framework Adequate?

- Our licensing regime though technology-neutral is service based. This means that today the same service being offered across different platforms are treated separately – Inconsistent Regulation
- There is need for a new licensing structure which reflects a fully converged environment based on technology and service neutrality

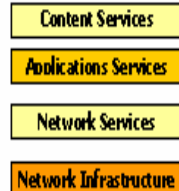
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## Is the Current Framework Adequate? (Cont.)

- The IBA currently caters for the regulation of broadcasting contents only, whereas the contents of the web are under the regulation of the ICT Authority
- Same contents being delivered on different platforms - means there is a potential for merging content regulation

Does it imply the merging at the institutional level of regulatory bodies?



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## Is the Current Framework Adequate? (Cont.)



- The ICT Act falls short of addressing a fully converged environment.
- There is no policy defined so far with regard to convergence.
- NICTSP 2006-2010 aims at further consolidation of progress made on convergence front, among others. Convergence policy as one of the recommendations.

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## Other Regulatory Issues - IT



- A fully converged regime inherently features a sound IT Security foundation
- Basic requirement for new modes of doing business such as E-commerce, E-banking, E-taxation etc
- ICT Authority currently tasked with setting up Public Key Infrastructure (PKI), as well as ccTLD re-delegation in preparation for a converged regime

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## Other Regulatory Issues –Scarce Resources



- The management of scarce resources important aspect in the convergence era
- Spectrum
  - Recognise the need to have available spectrum for new services
  - NICTSP 2006-2010 : Proposal for a spectrum policy
- Numbering:
  - The current Numbering Plan reflects neither a liberalized nor a converged environment.
  - Urgent need to re-engineer the plan
  - Currently in the implementation phase of an 8-digits service-based Numbering Plan

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## The Way Forward



- Tackling convergence while taking stock of country-specific context
  - No generic Convergence model can be applied
- Implement Convergence Plan at National Policy level
- Derive and fine-tune a convergent legal framework
- Adopt and enforce fully converged regulatory framework

Thursday, August 09, 2007



# Thank You



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