



## Licensing in an era of liberalisation and convergence



## The Wider Context

- It is not one country or one market that is moving towards convergence but the global marketplace in an era of global economy is marked by the phenomenon:
- We are living in a world characterized by mergers and acquisitions and mega deals and we consume products or services that have already converged.
- Globalisation supported by technological infrastructure, interactive communications and fast-adapting regulatory frameworks and in many cases deregulation.
- The driving force in the communications revolution is the USA is interactive communications. This concept can be linked to convergence.

## ICT and Convergence

- Until recently, the ICT market was dominated by monopolies with mostly fixed telephone services being provided over a basic access network.
- The rapid pace of development in the ICT sector has brought new challenges for the regulators globally. Today we have digitalization and soon IP traffic on every network.
- Regulators and policy makers around the world feel obliged to look at responsive and dynamic policies and regulatory framework to address the issues in a converging ICT environment.
- To synchronise with the realities of the market place.

## What is Convergence? Some definitions:

- Provision of various communication services like text, data, image and video over a common infrastructure.
- Development of new infrastructure for handling multimedia transmission.
- Managing of technologically and commercially distinct markets such as Broadcasting, Publishing, Cable, Fixed Voice, Cellular Mobile Services and Internet Services.
- The ability for different network platforms to carry essentially identical kinds of services.

## ITU definition:

- The technological, market or legal/regulatory capability to integrate across previously separated technologies, markets or politically defined industry structures. It is basically the integration of three distinct sectors: IT, Telecommunications and Broadcasting.

## Examples of Convergence

- Mergers and alliances among converging telecoms, entertainment, publishing and IT industries mainly in the US. Bank and telecom alliances taking place in the West since 2000. Mobile operators have networks and technology capable of making person to trader and person to person payments. Wireless telecoms attacking the control of the payment system of banks which used to be one of their greatest assets.
- Upgrading of Telecoms: Integration of IT hardware and software into telecoms.
- Devices like phones functioning as camera phones with video and multimedia applications.

## Need to prepare for Convergence

- New dynamics of the marketplace with Internet as the prime mover of convergence.
- Traditional booksellers were surprised to find that they had been overtaken by Amazon.com.
- E-commerce is capitalizing on convergence. Retail trade is being done via the Internet and other interactive services.
- Convergence developments at various levels.

## Types of Convergence

- Convergence of Technologies:
  - A single or common platform to deliver Voice, Data and Video Services.
- Convergence of Services/Network Convergence :
  - Delivery of multiplicity of services on same platform/network.
- Device/Terminal Convergence:
  - Convergence in equipment production. 3 G mobile phone offering voice,data, still and moving pictures.
  - PC's offering data, music,movies,radio stations.
- Regulatory Convergence:
  - Increasing need for regulations across different sectors.

Convergent organisational structures with new synergies to be developed among:

- Telecom regulators – More familiar with infrastructure and access issues
- Broadcast Regulators: More experienced with content and access issues
- IT Regulators: More expertise in Privacy and Security matters.

Converged environment – new regulatory issues:

- Intellectual Property Rights
- Consumer Issues
- Cross- sectoral competition



## Advantages

- OSS for operators and consumers
- Uniform provisions across different communication areas – better grasp of inter-relationships between sectors.
- Economies on staff, regulatory skills, and overall reduction of costs of regulation.
- Wider range of business options – Telecoms into mobile/Internet telephony/broadcasting.
- Better use of and less investment in infrastructure.



## Constraints

- Threat to independence with more Ministers seeking to influence regulatory decisions.
- More bureaucracy –enlargement of regulatory organisation.
- Different regulatory approaches leading to unclear regulatory principles.
- Content/cultural/political issues dominated by telecom, Spectrum and competition issues. More technical approach feared.
- A diversity of regulators is good for democracy.



## Licensing trends in a liberalised environment

- **Traditional approach:** Use licensing as a means to control entry and to ensure appropriate provisions of a public service.
- **New trend:** Heavy reliance on private players to supply communication services and on competition to achieve this objective.
- **Present approach:** Licensing regime increasingly to cater for specific competition and to strike the right balance between the ease of entry, competition between different access technologies, technical efficiency and consumer protection.



## Mauritian Context

- There has been limited competition in the ICT sector. Mauritius Telecom had exclusivity for fixed and international services (scheduled to terminate in December 2003) and there was a duopoly for mobile (since 1996) and Internet (since 2001) services.
- In November 2001, the government announced that it was advancing liberalization to begin from 1 January 2003 with Mauritius Telecom to be reimbursed for early termination based on losses it is supposed to determine.
- A National Telecommunication Policy was issued by the MITT in 2003 covering the far reaching changes that have taken place and establishing policy objectives and targets through 2008.

# Connectivity

- Mauritius first connected to the Internet in January 1996 with a 128 kbps satellite connection.
- In June 2002 Mauritius connected to the South Africa-Far East (SAFE) fibre optic submarine cable. The implications of this connection are far reaching with the cable an umbilical cord to the global digital economy.
- The Internet traffic MT carries over SAFE transits the SAT3/WASC cable and then goes via fibre from Portugal to Paris where it terminates at Telehouse, a hosting facility used by a number of major operators for Internet peering.
- The cost of international Internet bandwidth has been declining considerably. MT reports paying US\$ 40,000 per month for two Mbps via VSAT in 2002 and it was US\$ 20,000 in 2003 and today, with SAFE, it is US\$ 10,500. There is a case for more transparency.

## ICT ACT – Preparing for convergence

### Box 6.1: ICT Act

The Information and Communications Technologies Act (ICT Act 2001) is the main legal instrument governing the ICT sector in Mauritius. The Act outlines the establishment, management, power and duties of three institutions:

- The Information and Communications Technology Authority (ICTA) as the institution responsible for regulating the sector, replacing the MTA (Mauritius Telecommunications Authority);
- The ICT Advisory Council, to advise the Minister on matters related to ICT; and
- The ICT Appeal Tribunal to hear and dispose of any appeal against a decision of the Authority.

The Act also lays down principles and mechanisms for:

*Source:* ICT Act 2001.

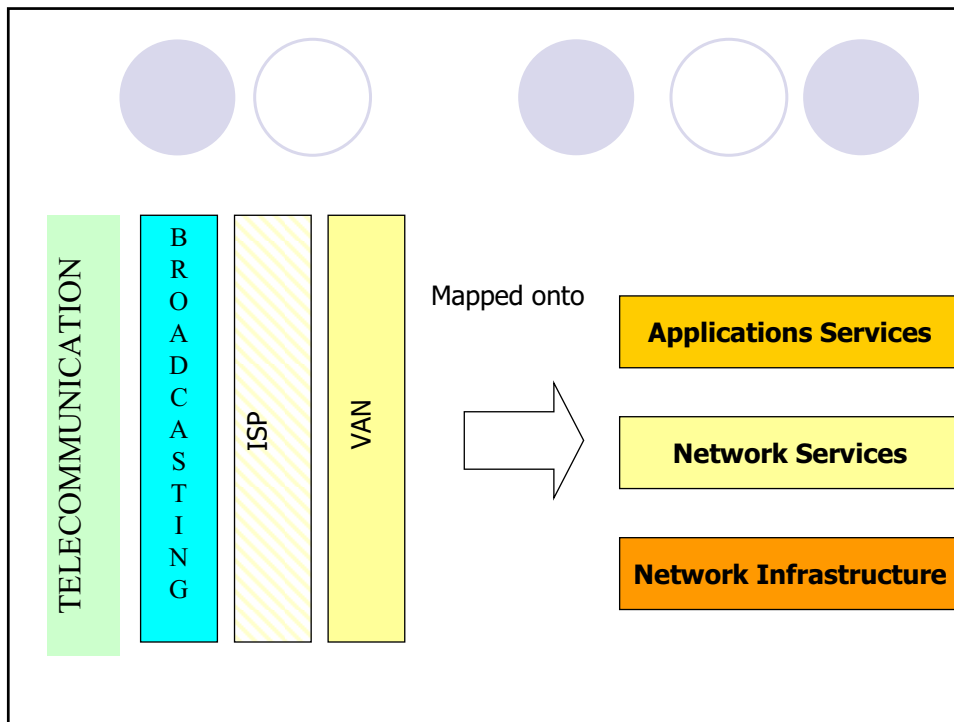
- Regulation of the information and communication technologies sector including (i) telecommunications; (ii) the use of the Internet; (iii) development of an information society and online services; (iv) the protection and security of data; and (v) the facilitation of convergence;
- The democratization of information and communication technologies for the promotion of a knowledge-based society;
- The transition towards a fully liberalized and competitive market in the information and communication sector; and
- Establishment of a General Fund to which all regulatory payments and dues shall be paid and the creation of a Universal Service Fund.

## Previous licensing framework

- Licences for specific services and for specific (Pre-Convergence framework) technology
- Examples of licences issued:
  - Public Switch Telephone Network (Fixed-line)
  - Public Land Mobile Network (ETACS and GSM)
  - International Long Distance
  - Internet Services
  - Internet Telephony
  - TV services
  - Radio services
  - Aeronautical Radiocommunications
  - Satellite services

## Migration path to converged structure

- The licensing structure is divided into three broad categories of commercial licenses
  - Category A: Network Infrastructure Provider License
  - Category B: Networking Services Provider License
  - Category C: Network Application Services Provider License
- There has therefore been an evolution from the previous vertically integrated model to a horizontally integrated model



## Implications of Present Licensing Structure

- This new version already reflects the 'technology neutrality' approach to licensing at the infrastructure level, since there is an equal treatment of the infrastructure for the different services to be provided (Category A).
- No distinction has been made between the Telecommunications and the Broadcasting sectors at the infrastructure level, which was not previously the case.
- This horizontal convergence at the infrastructure level allows for:
  - Less investment (no need to duplicate infrastructures)
  - Transparency

## Issues to be addressed in the context of convergence - 1

- Technological convergence gives rise to new services that are inconsistent with the existing regulatory frameworks
- The same service delivered over different platforms face different regulations and this situation can lead to inconsistent regulation
- This can, in turn, affect policy decisions in favour of one type of technology or service or service provider.
- Moreover, telecoms companies today, fixed and mobile, have to increasingly know and understand the content business whether or not they choose to acquire content properties.
- And content companies have to know and understand the widening range of networks or platforms over which they can deliver content to different audiences
- The answer to this problem is to shift from Sectoral to Layered ICT Policy Frameworks

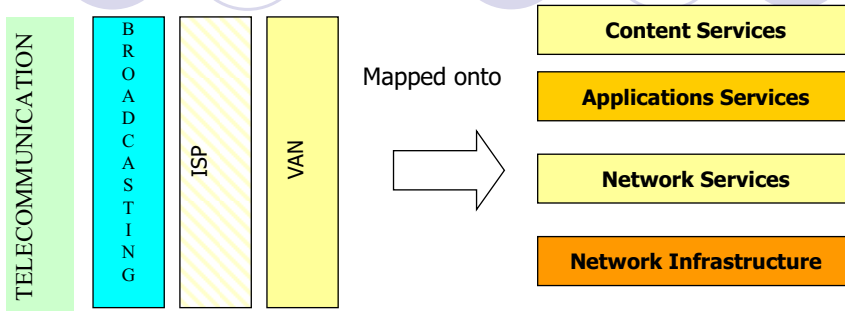
## Issues to be addressed in the context of convergence - 2

- To do this it is necessary to return to the nature of the shift between the old vertical sectoral policy framework to the new horizontal layered policy framework
- The sectoral framework was based on the distinct communications sectors that existed prior to the technological impact of convergence
- The sectors of broadcasting, telecommunications and IT were distinct and each had its own policies, actors and institutions organized at the national level.
- With digitization, the new ICT policy framework is to be based on layers - physical, logical and content and services

## Issues to be addressed in the context of convergence - 3

- The physical layer is concerned with questions of infrastructure.
  - The first issue is universal access to national and global networks.
  - The second issue is how to deal with bottlenecks that reduce the efficient operations of networks..
- The logical layer is concerned with threats to open internet usage at the level of software.
- The content and services layer addresses the policy issues related to freedom of expression and access to information, communication rights, local language and culture, intellectual property rights, and consumer protection.
- Therefore policy re-engineering is necessary to move decisively away from the sectoral framework and to explore the full implications of the layered framework on a holistic basis.

## Enhanced Converged Licensing Structure



- The converged licensing model must also cater for a reduction in regulatory intervention by introducing three licensing categories, namely:
  - Individual licensing (PSTN licence, PLMN licence, Radio, TV, etc)
  - Class licensing (ISP, etc)
  - Licence exempt (Deregulated activities like wireless LAN)

## Benefits of new converged licensing model

- Technical regulation of communication network to ensure its functioning and security
- Supervision of telecommunication markets to ensure competition
- Allocation and control of scarce resources (viz. radio frequencies, numbers, right of way)
- Data security and privacy protection in electronic communications
- Broadcasting regulation by monitoring the content and its compliance with law
- Improved ability to undertake detailed work on convergence, emerging competition and regulatory issues, and other issues
- Improved coordination of telecommunications and broadcasting issues in international fora
- Capacity for enhanced consumer information services

## Convergence Models – State of Convergence readiness

- Telecoms, IT and Broadcasting under one roof: UK- OFCOM, Malaysia - MCMC, Australia - ACMA, South Africa - ICASA. Singapore, France and India (announced).
- Telecoms and IT regulations
- Converged on top but non-converged regulators- Ministry/Govt Dept.
- Common infrastructure regulations (unified licensing model)  
- Fixed, mobile, cable, terrestrial and common content regulator for both broadcasting and the web.  
Other intermediary levels possible.

## Process of Convergence

- An enabling environment for convergence should exist first.
- Formulate national convergence policy objectives
- Adopt convergent legal framework
- Adopt new convergence regulatory framework

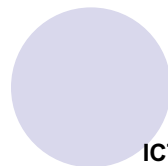
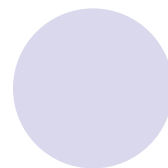
## Concluding Remarks - 1

- No single convergence model - no size fits all solution.
- Regional convergence approach or strategy proposing recommendations and guidelines to member countries.
- Liaison necessary between COMESA and other REC's like ACRA, TRASA(CRASA)

## Concluding Remarks - 2

- Should not be blinded by convergence. Each country to proceed at its own pace and avoid “Big Bang” approach
- Other challenges:
  - Increasing liberalization
  - Independence of the regulator
- ☞ Both linked to the need to strike a trade-off between the need to protect the incumbent and to encourage private operators in the communication sector for competition serving the interests of consumers and leading to greater foreign investments in ICT sector.
- ☞ Meeting Universal Service Obligations

# Thank You



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