



# Creating a Regulatory Framework for New Technologies: Legal and Institutional Challenges

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# What is Convergence?

## Multiple service provision under different network infrastructures

Network Infrastructure	Voice	Data	Video
Copper line	PSTN	DSL, FTTC, FTTP	VOD, IPTV
Cable	Analogue, VoIP	Cable modem	Analogue, DTV
Mobile	Analogue, 2G, 3G	2.5G, 3G	DVB-H, others
Fixed Wireless	VoIP	Proprietary, 3G, WiMAX, LMDS, MMDS	DVB
Power lines	VoIP	BPL	VOD, DVB, IPTV

PSTN= Public Switched Telephone Network, DSL=Digital Subscriber Line, FTTC=Fiber to the Curb, FTTP=Fiber to the Premise, VOD=Video on Demand, IPTV=Internet Protocol TV, VoIP=Voice over IP, DVB=Digital Video Broadcasting, 2G=Second generation mobile service, 3G=Third generation mobile service, DVB-H=Digital Video Broadcasting Handheld, WiMAX=Worldwide Interoperability for Microwave Access, LMDS=Local Multipoint Distribution System, MMDS=Multichannel Multipoint Distribution System, BPL=Broadband over Power Line.

# Is the Regulatory Framework Ready for Convergence?

## Checklist of Issues for Regulators to Consider with Regard to Convergence

- 1) Does the regulatory framework facilitate the provision of different services over different platforms (e.g., technology neutrality)?
- 2) Does the regulatory framework support full competition?
- 3) Does the regulatory framework allow service providers to offer multiple services?
- 4) What are the regulatory policies for these new technologies and services with regard to numbering, spectrum, universal service, and interconnection?
- 5) Does the country's legal framework contain the necessary legislation to support an ICT environment (e.g., intellectual property laws, computer crime, electronic transactions, data privacy and security)?

# Involve Stakeholders in Regulatory Process

Consultation as an essential part of the decision-making process:

- Enhances confidence in the regulator
- Increases consensus and support for regulatory decisions
- Provides input and feed-back from stakeholders
- Reinforces regulatory autonomy and accountability

Introduce industry self-regulation approaches:

- Designing and developing policies through an ad hoc or existing consultative body
  - Provides a way to constantly review and monitor new developments in the marketplace and permits first-hand contact with industry needs
  - Potential risk that dominant industry players will hijack recommendations

# Creating a Regulatory Framework

Essential elements of an effective regulatory framework in a converged services environment:

- Implementation of a well-defined and consistent regulatory framework for telecommunications, broadcasting, and ICT.
- Regulatory framework must give regulator the authority and means to effectively define and apply regulations in a market. These characteristics are important, especially in markets where incumbent operators have extensive political and financial power.
- Regulatory framework must provide for regulatory flexibility to adapt to the unanticipated needs and use of new technologies and services

# Institutional Design Options

- Three primary **institutional designs** for telecommunications regulatory entities:
  - Single-sector regulator: sole function is to oversee the telecommunications sector.
  - Multi-sector regulatory authority: usually encompasses various industry sectors considered to be public utilities, *e.g.*, telecom, water, electricity, and transportation.
  - “Converged” regulator: tend to have oversight for information and communications technologies, including broadcasting.

# Elements for an Effective Regulator

## 1. Structural Independence

- Reduces possibility of political or industry capture
- Separation of regulator from operator, insulation from external pressure, not wholly dependent on the related ministry in charge of telecom policy

## 2. Financial Independence

- Funding should be free from political and private interest influence
- Two main sources of budget: (1) allocation from government budget; (2) collection of regulatory fees for licenses, fines, spectrum usage, etc.

## 3. Functionality

- Ability of regulator to carry out its daily activities effectively

# Modifications to Telecommunications Legislation to Address Convergence

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- Reforms are taking place to address new challenges posed by convergence
- Merging of broadcasting and ICT regulation
- Primary areas of regulatory reform of telecommunications frameworks:
  - Licensing regimes
  - Spectrum
  - Licensing rights and obligations (interconnection, numbering, and universal service)



# Conclusion

- Technology is always faster than regulation – Convergence is already here and there will be further developments...
- Regulation cannot be thought of as a definitive solution
  - Interim regulations to adapt the framework to new challenges (*e.g.*, VoIP)
  - Mechanisms for regulator to engage in continuous review
- Key elements that regulators should incorporate:
  - Regulatory flexibility
  - Neutrality
    - Network neutrality
    - Technology neutrality
    - Service neutrality
    - Spectrum neutrality
  - Licensing – keep it simple
  - Seek industry input
- Need to keep in mind that an effective modification of the regulatory framework to address convergence requires an interwoven solution that addresses all key areas and changes to one area will affect other areas
- All these issues are addressed in ITU/*infoDev* Regulatory Toolkit – [www.ictregulationtoolkit.org](http://www.ictregulationtoolkit.org)

# Thank You

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