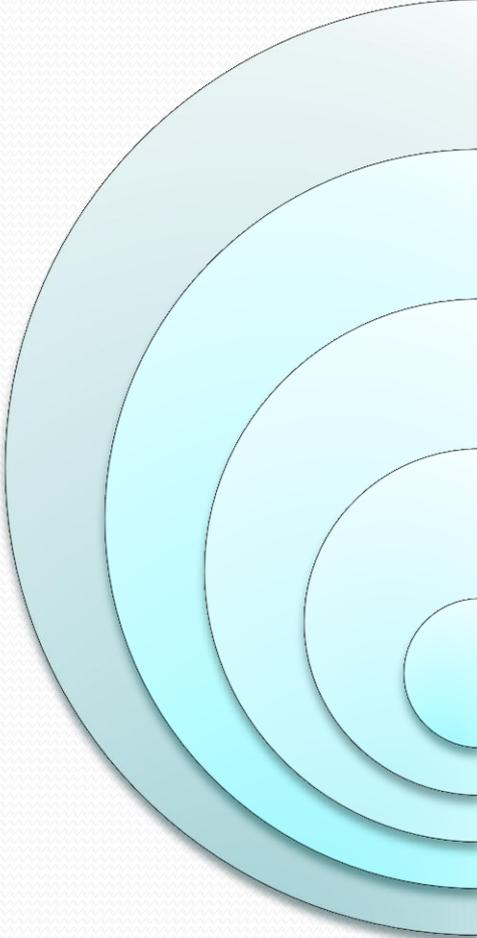# Regulatory challenges in a Digitally Converged World

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Agenda

Digitization – Benefits

Traditional Policy and Regulatory Frameworks

Government objectives

Regulatory Challenges

Way forward

Digitization- Benefits

Service providers
- Leverage existing infrastructure to provide a wider range of services at lower costs - Economies of scale and scope;
- New Platforms, New markets, New Services, New business models.
- Addresses the issue of capacity constraints.
- Enables transparent business transactions and better monetisation of same content.
- Enables Content security

Consumers
- Innovative services and applications to address daily needs;
- More choices of service providers;
- Reduced cost.

Economy
- Development of new technologies, applications and services;
- Improves productivity, efficiency and innovation;
- Enhances competition;
- Boosts employment opportunities and creates entrepreneurship even in rural and remote areas;
- Support globalization; and
- Growth of GDP.

Traditional Regulatory Framework

Formulated for integrated network and service platforms;

Separate regulations for telecommunication and broadcasting markets;

Within telecommunication, separate regulations for fixed, mobile, satellite, and internet services;

Within broadcasting, separate regulations for Cable TV, Direct to Home Satellite broadcasting, IPTV, and Headend in the Sky services;

Traditional approach of regulations end up reducing competition and curbing the spread of innovations and use of new technology;

Regulation objectives

Economic objectives:

- Encourage investment and innovation;
- Reduce cost of operations by improving ease of doing business;
- Promote competition to minimize price and maximize quality of services; and
- Inspire economic growth and performance using converged services.

Social objectives

- Affordable access to services;
- Plurality of voices in the media;
- Consumer protection and privacy.

Regulatory Challenges- Licensing

Deciding services and networks to be regulated;

Ensuring fair competition, i.e. a 'level playing field' between infrastructure heavy operators and infrastructure light operators;

To check monopolization as convergence can lead to market consolidation, reduced competition, and new entry barriers;

Restructuring of existing institutions to govern and regulate in converged environment;

Correcting licensing and regulatory asymmetry;

Protecting the Governments revenue;

Law Enforcement;

Network Reliability/Network Security;

Regulatory Challenges- Technical

Spectrum Management:
- Flexibility in spectrum allocation to take full advantage of new services and new technologies for existing services that may evolve with time;
- Addressing the problems of potential interference between different users;

Interconnection and access:
- Ensuring access to essential facilities;
- Interconnection between different types of networks;
- Cost- and revenue-sharing arrangements between interconnecting operators;
- Content to be made agnostic to the network and vice versa.

Quality of Service (QoS):
- Developing QoS parameters for converged services;
- Measurement of QoS parameters in the converged environment;
- Identifying specific operator (i.e. network or service provider) who shall be responsible to comply QoS parameters;

Tariff
- Consumer protection;
- Ensuring level playing field

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Way Forward

- Announce policy for converged services;

- Identify the services to be regulated;

- Engage in continuous review with stakeholders to face new challenges;

- Transform licenses and authorizations from type of service (voice, data, and video) or technology (cellular, fixed telephony, satellite broadcasting) to unified license;

- Separating spectrum licenses from service authorizations;

- Liberalize previously allocated spectrum and allocate technology neutral spectrum in future;

Way Forward

Promote competition;	Open the market to free entry if spectrum or other finite available resources are not required;	An effective inter connection regime to support the entry of competitive service providers;	effective measures to prevent and address abuses of market power;

Offer multiple choices to consumers.

Capacity-based IP interconnection for converged networks;

Technology Neutrality;

Network Neutrality;

Questions ?