

# Access and Interconnection

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in Telecommunications Market”  
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# Overview

Interconnection and access



Transition from traditional to new  
broadband interconnection regimes



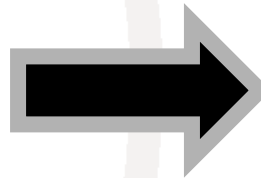
Some key points about convergence



Implications for regulatory policy

# Setting the stage: Interconnection and access

INTERCONNECTION is the linking of communications networks to ensure that users of one telecommunications network can access the telecommunications networks and services of other telecom operators.



ACCESS means the making available of facilities and/or services, to another undertaking, under defined conditions, on either an exclusive or non exclusive basis, for the purpose of providing electronic communications services.

**BOTH are necessary to promote effective market competition in a multi-network, multi-operator environment.**

# Regulators play a critical role in overseeing interconnection

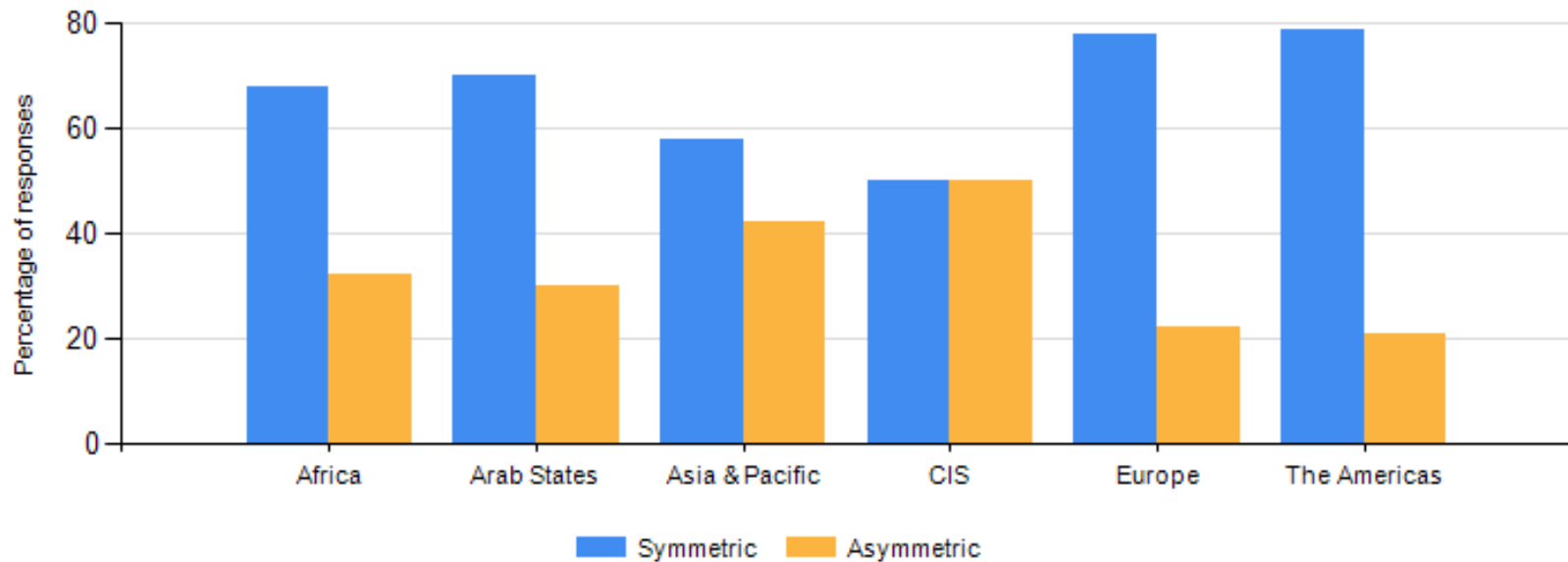
- To review relevant economic principles
- Analyze and propose interconnection costing approaches
- Develop interconnection guidelines and regulations
- Facilitate and encourage competition
- Require Reference interconnection offers (RIOs) and interconnection agreements

# Transition from traditional to new broadband interconnection regimes

- Introduction of symmetrical interconnection regimes
- Introduction of new kinds of interconnection – *e.g. access to infrastructure*
- Introduction of a technology neutral interconnection charging system - *based on capacity*

# Interconnection charging principles applied by countries

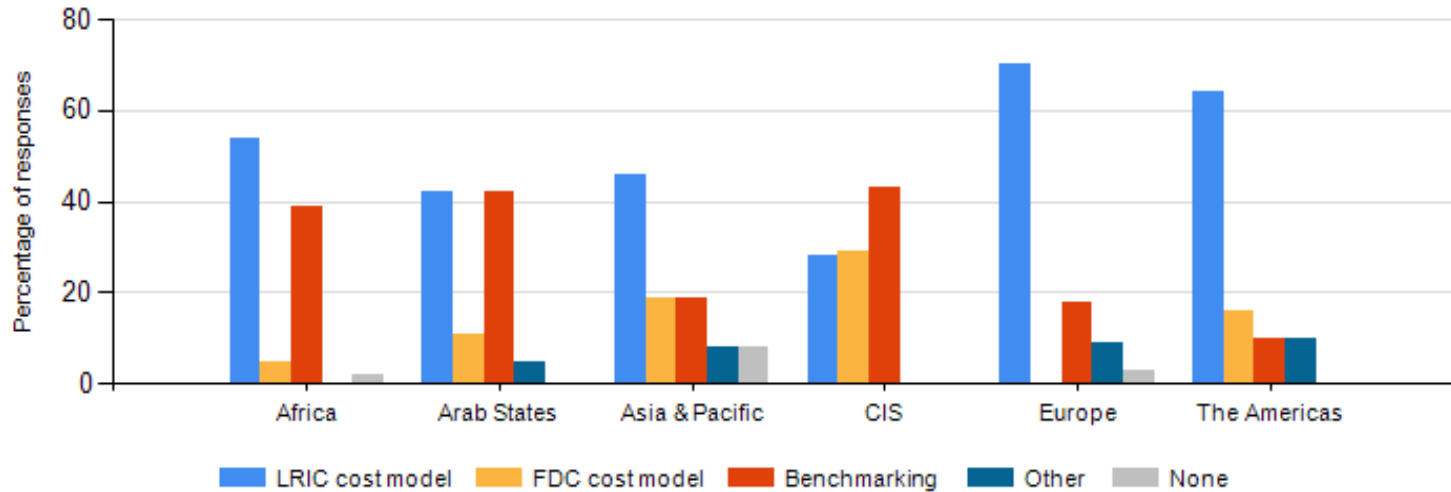
Interconnection charging principle adopted, 2015



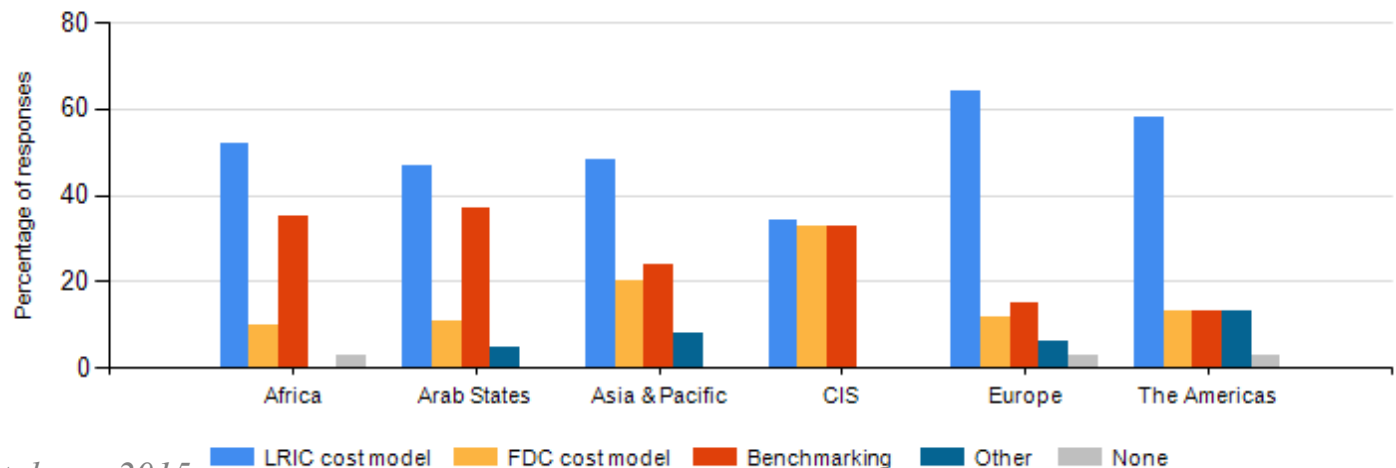
Source: ITU Tariff Policies Database, 2015

# Interconnection charging system

## Approach used to regulate Mobile termination rates, 2015



## Approach used to regulate Fixed termination rates, 2015



# Some key points about convergence

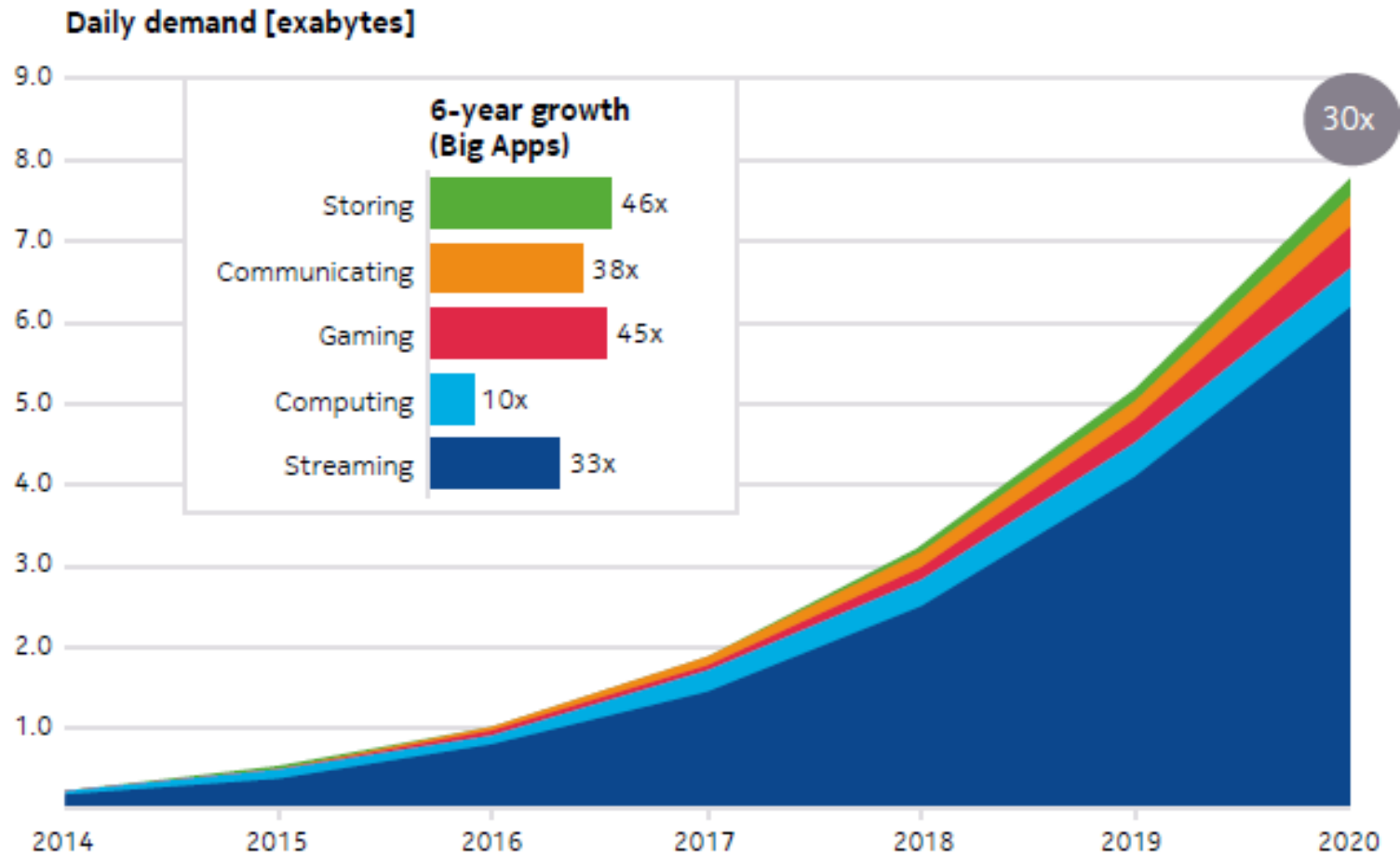
- Demand for bandwidth is growing strongly, driven by attractive services
  - Video content
  - Mobile payments/other business-enablers
  - OTTs services
- Bundling
  - Services and connectivity
  - Different services
- Different broadband ecosystems
  - DSL/cable/fibre
  - Growing mobile broadband connections, not just in developing economies



# Digital Apps - Traffic implications on the network

- Mobile data demand growth will be higher where fixed is lacking
- Digital Apps: streaming will dominate
- IoT: small traffic impact but big implications on the network

# Video dominates even though other apps grow faster



# Implications for regulatory policy in a converged broadband world

- Promoting investment is important – perhaps more so than in the past...
  - In the face of more uncertain demand, and co-ordination issues
  - Co-investment strategies (e.g.: between network operators - content producers - OTTs)
- Setting the right incentives to Operators
  - To expand or upgrade networks
- Services are key driver of demand and substitutability
  - Commercial strategies might need to be examined

# Implications for regulatory policy in a converged broadband world

- Regulatory obligations need to become more competition-policy like
  - Closer co-operation between NRAs and NCAs
- Specific market conditions matter
  - One size does not fit all

# GSR13

## BEST PRACTICE GUIDELINES ON THE **EVOLVING ROLES** OF BOTH REGULATION AND THE REGULATORS IN A **DIGITAL ENVIRONMENT**

*Regulating the ever-changing ICT sector is like aiming at a moving target. Developing and using best practices is the best way to fast-track our efforts to adapting to change and embracing new technologies to foster development and business.*

Initiated by :



Launching the consultation to identify regulatory best practice guidelines, based on contributions from Regulators, marks the first step of an inclusive consultative and collaborative process that concludes with the adoption by consensus of a set of best practice guidelines.

To meet the expectations of a rapidly evolving digital ecosystem, policy makers and regulators need to adapt and develop more flexible, innovative and light-handed regulatory frameworks expanding beyond the traditional core telecom sector to take into account the multi-facet and multi-stakeholder dimensions of the digital world.



[www.itu.int/en/ITU-D/Regulatory-Market/Pages/bestpractices.aspx](http://www.itu.int/en/ITU-D/Regulatory-Market/Pages/bestpractices.aspx)

- ...
- We acknowledge the importance of conducting market analysis to assess the market situation in a converged environment, in order to identify operators with significant market power (SMP) and stimulate competition in the market.
- Ensuring that the principles of fair, equal and non-discriminatory treatment of all market players continue to prevail will foster a level playing field among regulated and unregulated players.
- We acknowledge that when adopting a regulatory framework that eliminates barriers to new entrants, ensuring the inclusion of competitive provisions that guarantee a healthy relationship between all authorized players in the relevant market (operators, Internet providers, OTT providers, etc.), is one way to promote the deployment of next-generation broadband networks and access to online applications and services.
- Regulators can also encourage network and facility sharing through soft measures such as cross-sector infrastructure mapping that enables the coordination of civil works.
- Empowering consumers to make informed decisions through the development of online tools to check speed, quality of service and price of access is another measure regulators may take to foster competition.
- ...

# More Information

- Telecommunication Development Sector
  - [www.itu.int/en/ITU-D/](http://www.itu.int/en/ITU-D/)
- Regulatory and Market Environment Website
  - [www.itu.int/en/ITU-D/treg/](http://www.itu.int/en/ITU-D/treg/)
- ITU ICTEye Database
  - [www.itu.int/net4/itu-d/icteye/](http://www.itu.int/net4/itu-d/icteye/)
- ITU Publications on Economic & Finance
  - [www.itu.int/pub/D-PREF-EF/en](http://www.itu.int/pub/D-PREF-EF/en)

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