









- Presenting lawmakers and ICT regulators with a new set of challenges.
- They must address traditional competition issues, but often with new twists.
- Introduction of apps has unleashed a variety of innovative applications and services and new business models that challenge old revenue streams and legacy regulatory
- Regulators must find ways to adapt their rules to ensure fair competition, drive investment and innovation and protect consumers.



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Regulatory Responses

- Licensing
 - Facilitating licensing processes, de-licensing, license-exempt, and issuing MVNO licenses (e.g., licenses in China, Kenya)
- Access obligations
 - Modifications in wireline network access (e.g., Canada, Brazil)
 - Wholesale, open access models (e.g., Australia, Brazil, Oman, Kenya,
- Network and spectrum sharing
 - Viewed favorably as promoting competition and facilitating entry generally (e.g., Jordan, Kenya, Israel, India)
 - Some concern regarding collusion with active sharing although that is
 - Some content regarding confusion with active straining antibught that is changing (e.g., spectrum sharing in Sweden)
 Mandated national roaming and infrastructure sharing to assist new entrants (e.g., Chile, Colombia, France, Jordan often challenged by incumbents) or imposed via merger conditions (e.g., Portugal/Optimus/ZON transaction)



Regulatory Responses (cont'd)

- Horizontal and vertical integration
 - > As large network operators vertically integrate with large content providers, concerns about the potential for anti-competitive behaviors are raised (e.g., pending Comcast and Time Warner merger in U.S.)
- Net neutrality (consumer/competition issue)
 - General principles of net neutrality
 - > Regulations or proposed regulations (e.g., Brazil, Canada, Chile, EU, U.S.)
 - > Tiered data plans, prioritization, sponsored data plans - good/bad?
 - Is regulation needed or is this addressable through quality of service regulations for data traffic?



Regulatory Responses (cont'd)



- Internet interconnection
 - Competition concerns are being raised by content providers (CPs) and content distribution networks (CDNs) that peering and transit arrangements are no longer reasonable.
 - Is regulatory action necessary to foster competition? Would greater transparency/reporting requirements be a sufficient mechanism to address concerns (e.g., ARCEP France)?



- Mechanisms to protect consumer choice
- Contractual obligations (preventing customer lock-in)
- Number portability (ease of switching providers)
- Interoperability (e.g., cloud computing, mobile banking)



- environment
- To address these changes, policymakers and regulators are engaged in various efforts to ensure that competition and innovation can continue to flourish
- As markets and technologies continue to evolve, policymakers and regulators should monitor developments and carefully consider what the regulatory tools will be necessary to harness the benefits of competition for meeting their social and economic goals.

