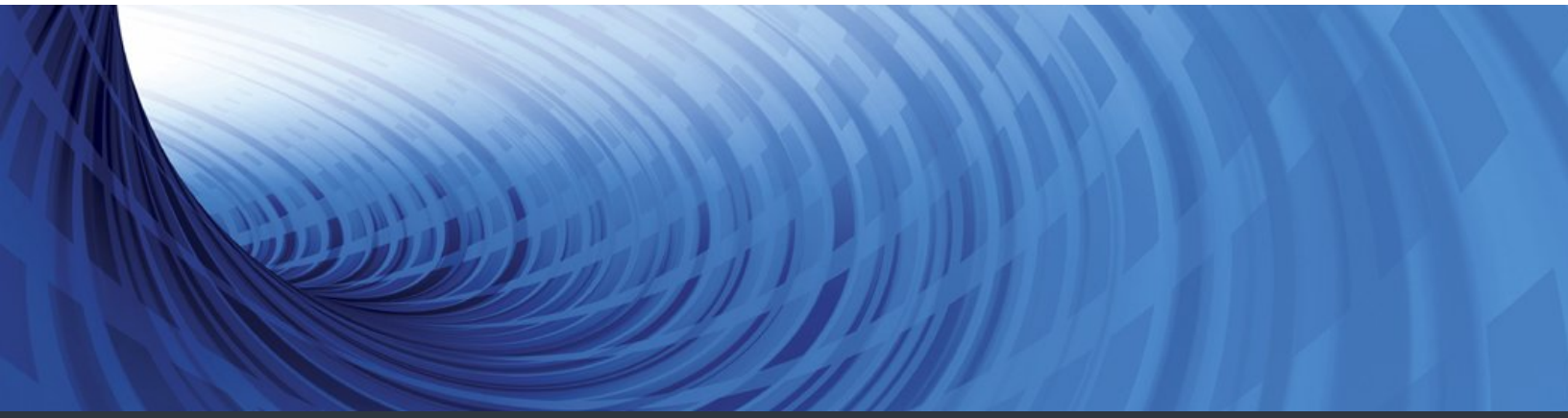

Legal and Institutional Aspects of Regulation

Module 6

ICT Regulation Toolkit

EXECUTIVE SUMMARY

Legal and Institutional Aspects of Regulation

Module 6 of

ICT Regulation Toolkit

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The full module is available online at:
http://www.ictregulationtoolkit.org/en/Section.1254.html

For more information, please see:
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ABBREVIATIONS AND ACRONYMS

ACIF	Australian Communications Industry Forum
ADR	Alternative Dispute Resolution
ARE	Autoridade de Regulamentação Economica (Cape Verde)
ASEAN	Association of Southeast Asian Nations
CAATEL	Andean Committee of Telecommunications Authorities
CEMAC	Central African Economic and Monetary Community
CRA	Communications Regulatory Authority
DCITA	Department of Communications, Information Technology and Arts
DOJ	U.S. Department of Justice
DSB	WTO Dispute-Settlement Body
EC	European Commission
ECOWAS	Economic Community of West African States
ENUM	Electronic Numbering
EU	European Union
FCC	Federal Communications Commission
FTC	Federal Trade Commission
GATS	General Agreement on Trade in Services
GTL	General Telecommunications Law
ICT	Information and Communication Technologies
ICTI	Institute of Communications and Information Technology (Cape Verde)
IDA	Info-Communications Development Authority of Singapore
INDOTEL	Instituto Nacional de Telecomunicaciones
IP	Internet Protocol
ISP	Internet Service Provider
ITU	International Telecommunication Union
MCMC	Malaysian Communications and Multimedia Commission
NRA	National Regulatory Authority
MERCOSUR	Mercado Común del Sur
NRA	National Regulatory Authority
NRF	New regulatory framework
OECS	Organization of Eastern Caribbean States
PSTN	Public Switched Telephone Network
PTT	Post and telecommunications companies
SADC	South African Development Community
SIDEAMET	National Communications Board of Estonia
TRAI	Telecom Regulatory Authority of India
TRASA	Telecommunications Regulators Association of Southern Africa, recently renamed The Communications Regulators Association of Southern Africa (CRASA)
UA	Universal Access
UEMOA	West African Economic and Monetary Union
US	Universal Service
USO	Universal Service Obligations
VoIP	Voice over Internet Protocol
Wi-Fi	Wireless Fidelity
WiMAX	Worldwide Interoperability for Microwave Access
WLL	Wireless Local Loop
WTO	World Trade Organization

1. INTRODUCTION

The telecommunications sector has undergone extensive changes in recent years. Many state-owned operators were privatized and the sector experienced a trend of liberalization worldwide, motivated by the evolution of new technologies and services, the growing importance of telecommunications for national economies, and the development of international trade in telecommunications services. As a result, the telecommunications sector in most countries has experienced a fundamental change in structure, from that of monopoly to competition.

The convergence of telecommunications, broadcasting, and information technology is dissolving the once-clear lines that distinguished the mode of delivery and allowed for the distinct regulation of these different sectors. In order to adapt to these new developments, countries have been undertaking a review of their existing frameworks, enacting new legislation and creating new regulatory authorities to implement it. Such a framework is essential for the sector, particularly as countries move from state control to market competition, and is necessary to attract new entrants as well as private investment.

Many of the laws, regulations, and best practice examples examined here address these fundamental changes in the telecommunications industry and its evolution within the information and communications technologies (ICT) sector, and provide guidelines for effective regulation for competition. However, while we highlight best practices for effective regulation, it is important to realize that the implementation of such practices may vary from country to country, requiring consideration of local political, economic, social and other conditions and circumstances in designing the appropriate legal and regulatory instruments.

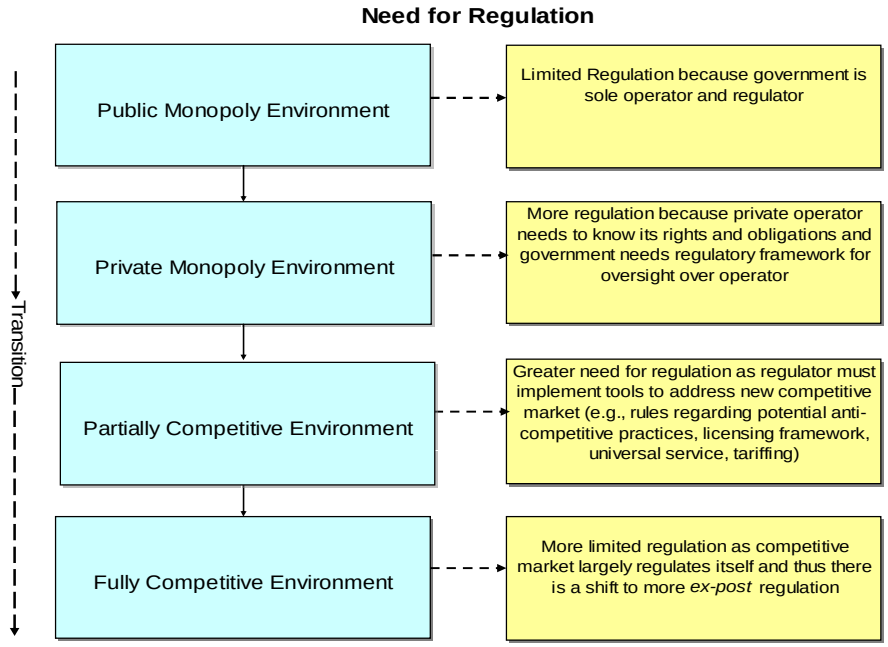
This executive summary provides an overview of the Legal and Institutional Aspects of Regulation Online Module of the joint ITU-*info*Dev ICT Regulation Toolkit (www.ictregulationtoolkit.org), a best practices resource for regulators, policymakers and practitioners in the context of the current ICT environment. The Module contains over 400 pages of text based on a comprehensive analysis of legal and regulatory frameworks worldwide; information and studies by industry experts and institutions such as the World Bank and the International Telecommunication Union; and extensive practice notes and reference materials.

2. WHY REGULATE?

The need for regulation varies depending on the conditions of the marketplace. While the design of the regulatory framework may differ, certain critical elements should be included in an effective regulatory framework. These features relate to elements for effective regulation; aspects to consider when designing the regulatory framework; functional aspects of the regulatory authority; and decision-making, accountability, consumer protection, dispute resolution and enforcement powers. Consideration and proper implementation of these features are key elements for creating an enabling environment for development of the sector and for increased consumer welfare.

In the 1990s, many countries introduced the first wave of reform by privatizing their national operators. Until that time, telecommunications services were largely provided under monopoly conditions and thus limited regulation existed because the government was acting as both operator and regulator. In the very initial stages of liberalization, some countries have created a regulator when introducing a private monopoly. These regulators oversee the sector and ensure that the private operator knows and can comply with the "rules of the game." In the second wave of liberalization, which sometimes occurs simultaneously with privatization, governments typically authorize the entry of new service providers and new services (*e.g.,* mobile services and value-added services) into the market. Generally, this involves the modification of the licensing framework in order to allow the entry of the new players, as well as the introduction of complementary rules and regulations to allow these operators to participate in the marketplace.

Figure 1: Need for Regulation

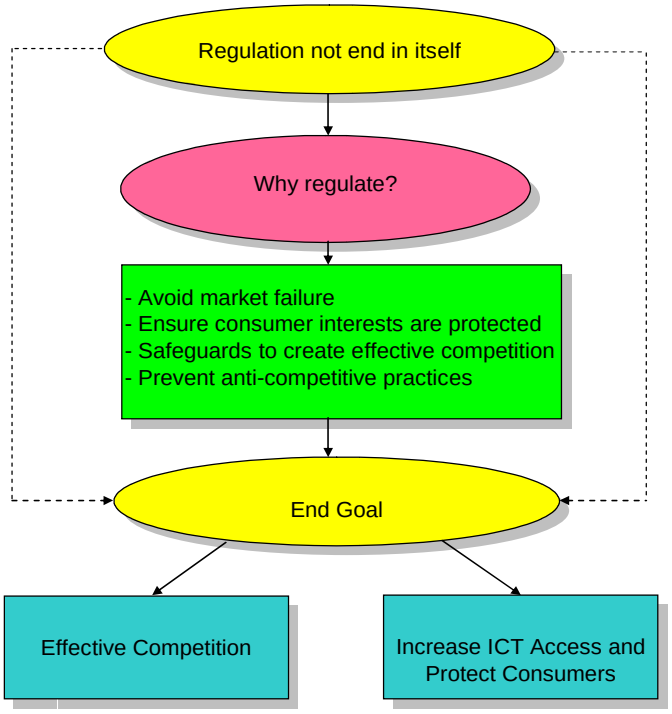


Source: Telecommunications Management Group, Inc.

The third wave of liberalization occurs when the incumbent operator's exclusivity period ends and full competition can be introduced. With the introduction of full competition, the role of the regulator actually increases (see Figure 1), particularly during the early stages of transition from the former monopoly to effective competition. As noted in Figure 2 below, regulation is not an end in itself, but rather a vehicle to attain, and subsequently sustain, widespread access, effective competition and consumer protection.

To transition to an effective, competitive environment, regulatory reform must include measures aimed at: (i) creating functional regulators to oversee the introduction of competition; (ii) preparing the incumbent operator to face competition (*e.g.*, deadlines for market exclusivities); (iii) allocating and managing scarce resources in a non-discriminatory way; (iv) expanding and enhancing access to telecommunications and ICT networks and services; and (v) promoting and protecting consumer interests, including universal access and privacy.

Figure 2: Goals of Regulation



Source: Telecommunications Management Group, Inc.

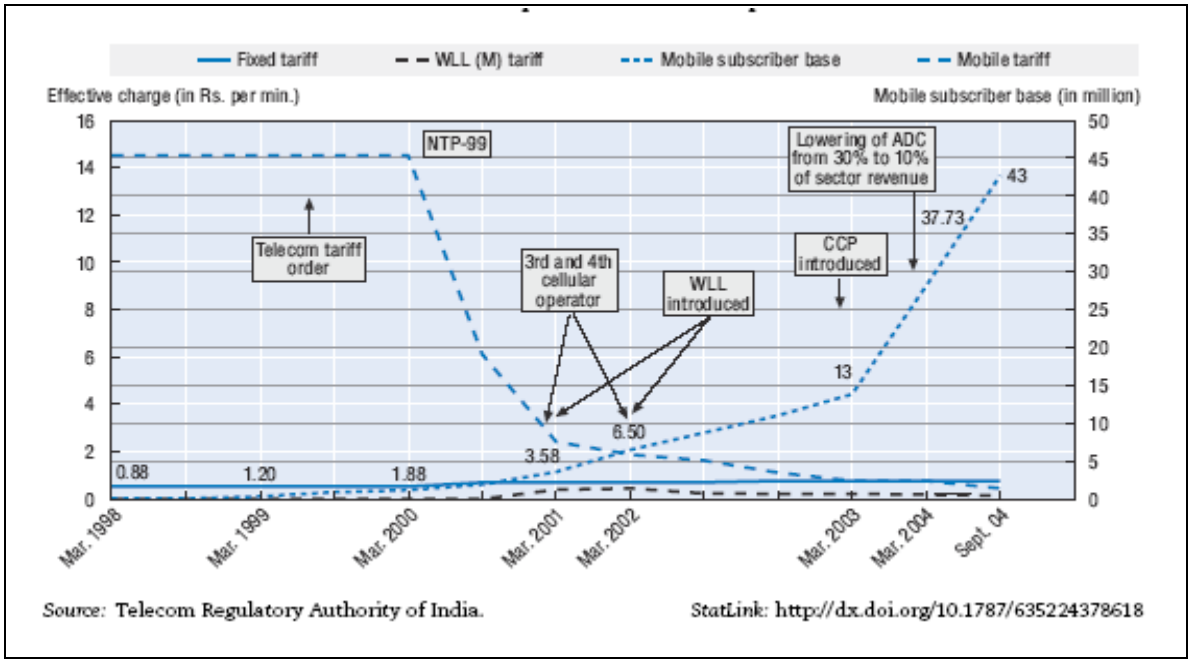
Once a fully competitive environment is attained, it is generally agreed that a more limited need for regulation exists. In certain areas such as universal access and service, however, market forces often fall short of creating the conditions necessary to satisfy public interest objectives and thus regulatory intervention is required. Similarly, regulatory agencies must ensure that spectrum is properly managed and allocated.

Moreover, despite the benefits of new technologies, regulators also must be attentive and responsive to the regulatory issues that arise from the implementation of these new technologies and their related services. For example, in today's environment, regulators are grappling with issues such as spam and consumer concerns regarding privacy, which were not issues of concern to regulators 10 years ago. In addition, governments are reviewing their regulatory structures to determine whether their current organizational structures are best suited for regulating a converged marketplace with multiple services offered by the same platform.

Likewise, regulators are realizing that their existing regulatory frameworks may impede the ability of operators to make triple or quadruple play offerings to consumers or use low-cost Voice over Internet Protocol (VoIP). Similarly, numerous governments are currently holding consultations regarding digital television in order to assess what standard should be used for such services. In addition, regulators should ensure that consumers are made aware of potential limitations associated with new technologies (*e.g.*, emergency services may not be available through such services, and services offered may be of lower quality).

The implementation of an effective regulatory framework has resulted in greater economic growth, increased investment, lower prices, better quality of service, higher penetration, and more rapid technological innovation in the sector. In fact, investors consider the regulatory environment to be a critical factor in their analysis of whether or not to invest in a country.

Figure 3: The Impact of India's Regulatory Reforms on Mobile Penetration and Price[1]



As evidenced by Figure 3 above, the Telecom Regulatory Authority of India (TRAI) has made a comprehensive reform of the regulatory framework to promote technological

neutrality and take advantage of inter-modal competition. These regulatory efforts have brought economic growth to the sector and produced a marked increase in mobile subscribers and a fall in mobile tariffs. In 1999, when the New Telecommunications Policy was adopted, India had close to 1.2 million mobile subscribers, and effective charges were 14.5126 Rs./minute.[2] Between 1999-2004, pro-competitive and liberalization-oriented policies, such as issuing additional mobile licenses in 2001 and 2002, and awarding Wireless Local Loop (WLL) licenses in 2002, have had a positive effect both on penetration and prices. And this progress continues: as of June 2006, mobile subscribers (excluding WLL (F) subscribers) have increased to 105 million and prices have dropped to 0.7658 Rs./minute.[3]

Similarly, lower prices for international telephone calls, for example, are also highly correlated with the level of competition. In Africa, where competition in long-distance telephony is lowest, prices for both international telephone calls and broadband services are much higher than in other regions.[4] Regulators often must intervene to remedy shortcomings in competition and ensure that competition is working effectively. In certain cases, this includes imposing some form of regulation, such as rules related to interconnection charges to require incumbent operators to charge competitive operators wholesale cost-oriented rates; liberalizing the international gateway; and eliminating restrictions on resale to allow entry of multiple operators and greater competition.

3. LEGAL CONTEXT OF REGULATORY REFORM

Regulation does not occur in a vacuum, and the establishment of a legal and regulatory framework is determined in large part by a country's legal tradition, multilateral and regional commitments, the maturity of the market, and other non telecommunications-specific legislation, such as tax, foreign ownership, consumer protection, and real property laws.

3.1 Impact of Different Legal Traditions on the Regulatory Framework

The conception of law and legal systems differs depending on the country and often is rooted in perceptions based on customs, culture, religion, and politics.[5] For historical reasons, as well as political and economic influences, the legal systems of countries are often an amalgamation of various legal systems, incorporating elements of different legal traditions.

Market liberalization during the last two decades has resulted in structural changes in the telecommunications regulatory frameworks of many countries. Regulatory models have been developed incorporating internationally recognized best practices. In implementing these models, the legal tradition has influenced the procedure and approach towards the achievement of the policy and regulatory goals that support such best practices, but has not necessarily determined the content of the telecommunications regulatory framework.[6]

In addition, the design of legal instruments used to regulate the telecommunications sector may vary depending on the legal tradition of a country. Generally, however, the legal framework follows a hierarchy, beginning with primary legislation, such as laws and decrees from which secondary legislation such as regulations, resolutions and guidelines follow. This legislation, in turn, provides the legal basis for the regulator or the relevant ministry to issue authorization instruments such as licenses, concessions, and permits to operators.

While primary legislation should address fundamental regulatory issues, the details of such issues are better addressed through secondary legislation. The elements regulated *via* primary legislation in both civil and common law countries are often very similar. In countries with civil law traditions, however, subject areas covered by the principle of legal reserve (*i.e.,* subject matters that have been constitutionally reserved to regulation by an instrument with the hierarchy of a law) also may need to be included within the text of primary legislation. Moreover, in civil law jurisdictions it is often the case that in order to regulate certain matters through secondary legislation, they must be referred to in the primary legislation. Further, the extent of specificity contained in the primary legislation from civil law jurisdictions varies among countries. In Bulgaria,[7] for example, the primary legislation is quite comprehensive, whereas in countries such as Algeria,[8] the primary legislation address similar issues, but the provisions are much less detailed. The online Legal and Institutional Aspects of Regulation module includes sample laws from countries around the world.

3.2 Impact of Multilateral and Regional Commitments

Regulatory reform may accelerate in countries that make global and regional commitments to open their telecommunications markets to foreign investment and harmonize local legislation with that of other countries in similar geographic or economic situations. These commitments may also facilitate global or regional best regulatory practices, and provide telecommunications investors with a level of certainty and predictability.

3.2.1 Multilateral Commitments

Members of the World Trade Organization (WTO) have undertaken treaty obligations that directly affect the telecommunications sector. WTO obligations and commitments constitute legally binding obligations on members, enforceable through the WTO's binding dispute settlement process. As a result, the impact of WTO commitments on a country's regulatory framework can be seen through voluntary compliance of a member's commitments or as a result of enforcement through the WTO's dispute settlement mechanism. Periodic "rounds" of negotiations are used to progressively improve and extend the obligations and commitments.

The General Agreement on Trade in Services (GATS) is foremost among the WTO instruments relevant to telecommunications. The GATS consists, in part, of a basic text and annexes (the "framework"), which apply to all Members. The GATS Annex on Telecommunications recognizes that access to, and use of, public telecommunications networks are essential to the effective provision of services covered under GATS. It requires WTO members to ensure that suppliers of scheduled services may access the "public telecommunications transport network and services" on reasonable and non-discriminatory terms. The 2004 panel ruling in the WTO dispute settlement case on Mexican telecom regulations confirmed the importance and legal weight of these guarantees.

In addition, GATS encompasses a set of schedules that contain market access commitments on specified services that are appended by each Member. Each Member may decide when, and to what extent, to commit on market access for telecommunications. At present, 105 Members have telecom commitments, the majority of which result from the basic telecom negotiations (1994-1997). Those negotiations established a basis for structural reform of the telecommunications sector by means of its concerted efforts at removing barriers to entry and competition. However, Members' commitments vary greatly from one schedule to the next. Which services are opened to competition and the types of restrictions maintained reflected the type of reforms in place or anticipated by each government at the time of the negotiations.[9]

The negotiations on basic telecommunications also resulted in the "Reference Paper on regulatory principles".[10] It was designed as template of a framework for sector regulation adapted to a competitive environment. The aim of the principles, from a trade standpoint, was to ensure the effectiveness and value of the market access commitments undertaken. Negotiated jointly by trade and telecom officials, however, it largely reflected best

practice in pro-reform telecom regulation. Today, nearly 80 WTO Members have agreed to observe these principles by appending them to their schedules. The six principles of the Reference Papers have come to serve as a "checklist of success" of telecommunications reform in many countries. These principles relate to: (i) competitive safeguards; (ii) interconnection guarantees; (iii) transparent and competition-neutral universal service mechanisms; (iv) public availability of licensing criteria; (v) independence of regulators; and (vi) equitable procedures for allocation and use of scarce resources.

3.2.2 Regional Commitments

Regional commitments also constitute an important driver of liberalization and harmonization of the telecommunications regulatory frameworks. In various continents, regional organizations have spearheaded regulatory reform efforts, creating enabling environments for development in the sector.

Europe

In 2002, the European Commission (EC) approved a new regulatory framework (NRF) consisting of a Framework Directive and four principal specific directives: (i) the Authorization Directive; (ii) the Access Directive; (iii) the Universal Service Directive; and (iv) the Data Privacy Directive. Also part of the NRF is the Commission Recommendation on Relevant Markets and the Commission Guidelines on Market Analysis, which direct regulatory authorities to conduct analyses of specific markets that may be susceptible to regulation.

The NRF's general goals are to encourage competition in the electronic communications markets, improve the functioning of the internal market, and guarantee basic user interests that would not be guaranteed by market forces. In addition, and as a corollary of the lessons of convergence, the NRF is intended to be technology neutral, discarding such concepts as voice telephony and the distinctions between fixed and mobile communications previously relied upon by the European Union (EU).

Americas and the Caribbean

Mercado Común del Sur (Common Market of Southern Cone or MERCOSUR), created in 1995, is the economic block formed by Argentina, Brazil, Paraguay, Uruguay, and Venezuela, with Bolivia, Peru, and Chile as associate member states. Although MERCOSUR does not have a single body of telecommunications rules or directives, decisions issued by the Common Market Council on relevant commercial matters governed under the MERCOSUR treaty are later adopted into the national legislation of the member states. In 1995, the Common Market Group of MERCOSUR established Working Subgroup 1 (SGT1), which is responsible for negotiating matters regarding communications. The SGT1 has issued several recommendations that have been incorporated into the national legislation of the member states in matters such as the

provision of basic public telephone services in the bordering areas of MERCOSUR and the harmonization of certain spectrum bands, among others.

The Andean Community, originally created in 1969, is currently formed by Bolivia, Colombia, Ecuador, and Peru, with Argentina, Brazil, Chile, Paraguay and Uruguay as associate member states. The Andean Community has been instrumental in promoting liberalization of telecommunications services in the region. In May of 1999, it adopted a common and binding decision to remove market entry barriers in the sector (excluding broadcasting). In addition, in November 1991, the Andean Committee of Telecommunications Authorities (CAATEL) was created to, among other things, advise the various bodies of the Andean Integration System on telecommunications matters at the Community level.

In the Caribbean region, the Organization of Eastern Caribbean States (OECS), created in 1981, is an organization formed by Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. Its primary objective is to promote economic integration and cooperation among its member states. In an effort to introduce competition in the telecommunications sector, five countries – the Commonwealth of Dominica, Grenada, St. Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines – agreed to adopt a harmonized regulatory framework and a competitive regulatory authority.

Africa

The Economic Community of West African States (ECOWAS) is among the various regional economic communities in Africa actively creating initiatives to foster cooperation and integration of their telecommunications and information technology activities. The ECOWAS treaty foresees the harmonization of legislation, including in the telecommunications field, similar to the EU model. For this purpose, ECOWAS, together with The West African Economic and Monetary Union (UEMOA) has undertaken a Telecommunications Regulation Harmonization Project[11] aimed at designing a strategy for the harmonization of telecommunications policies in ECOWAS.

Box 1: Other African Regional Initiatives

***Economic community*: South African Development Community (SADC)**

Member states: Angola, Botswana, the Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, United Republic of Tanzania, Zambia, and Zimbabwe.

Related Telecommunications Association: Telecommunications Regulators Association of Southern Africa (TRASA)[12] (recently renamed The Communications Regulators Association of Southern Africa (CRASA)).

Harmonization Efforts: SADC is among the most advanced regional economic communities with respect to telecommunications liberalization and ICT issues. CRASA has advocated establishment of independent regulators, and is proactive in attracting foreign investment in telecommunications infrastructure development. It advocates the introduction of operators to compete with the incumbent telecommunications operator and the corporatization of the public operator.[13] CRASA also has established model ICT policies, legislation document, and regulatory guidelines for the SADC countries.

***Economic community*: West African Economic and Monetary Union (UEMOA)**

Member states: Benin, Burkina Faso, Cote d'Ivoire, Guinea Bissau, Mali, Niger, Senegal, and Togo.

Related telecommunications association: None

Harmonization efforts: UEMOA is currently working on directives aimed at the harmonization of telecommunications laws of the member countries. Given that all its members are also members of ECOWAS, UEMOA has actively participated in ECOWAS and WATRA workshops on the ECOWAS guidelines and aims to harmonize its directives with ECOWAS.

***Economic community*: Common Market for Eastern and Southern African (COMESA)**

Member states: Angola, Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia, and Zimbabwe.

Related telecommunications association: Association of Regulators of Information and Communication in Central and Eastern Africa (ARICEA)

Harmonization efforts: Through ARICEA, COMESA has been very proactive in member state capacity building. It has initiated programs to harmonize ICT policies and attract foreign investment to the region, and drafted model ICT policies, licensing rules, and frameworks. It also has established an agenda to stimulate regulatory harmonization.

***Economic community:* Central African Economic and Monetary Community (CEMAC) and Economic Community of Central African States (CEEAC)**

CEMAC Member states: Cameroon, the Central African Republic, Chad, the Republic of the Congo, Equatorial Guinea and Gabon.

CEEAC Member States: Angola, Burundi, Cameroon, Chad, Central African Republic, Gabon, Republic of Congo, Democratic Republic of Congo, Equatorial Guinea, Rwanda, São Tomé and Principe

Related telecommunications association: Central African Telecommunication Regulators Association (ARTAC)

Harmonization efforts: Working towards the promotion of economic integration among Central African states.

Asia

Over the past decade, creating an effective framework to promote growth in the telecommunications industry has been a top priority for the Association of Southeast Asian Nations (ASEAN), an intergovernmental organization comprised of the Governments of Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. However, ASEAN regulatory reform proposals (*e.g.*, the development of a uniform regulatory framework among ASEAN countries) have yet to yield concrete results, largely due to the lack of binding authority of ASEAN's decisions on its member countries.[14]

3.3 Maturity of the Market – Relationship Between Telecommunications Legislation and Competition Policy

3.3.1 From Sector-Specific Regulation to Competition-Based Regulation

A growing trend among countries with highly competitive ICT markets is the increasing reliance on competition laws to regulate the sector. The relationship between sector legislation and competition policy varies by country, and is influenced by the country's level of economic development and the maturity of the market. Regardless of the regulatory model adopted, it is essential that policies be guided by underlying principles of competition in order for markets to develop for the benefit of consumers.

Competition law tends to be *ex-post* as competition authorities generally are required to intervene after an anticompetitive practice has been committed. On the other hand, telecommunications regulation tends to be *ex-ante* as regulators typically are given authority both to impose approval conditions (*e.g.*, award licenses) and intervene prior to certain actions involving industry participants, (*e.g.*, approve mergers and acquisitions). An argument in favor of *ex-post* regulation has been that it is more flexible and not as interventionist as *ex-ante* regulation because it relies on market forces to dictate the rules of the game, unless abuses are committed. Among the disadvantages cited for *ex-post* regulation is that it may be too slow to adapt in a fast-paced communications environment.[15] The need for employing *ex-ante* regulation for some period of time, however, is recognized as a necessary means to promote competition in markets where competition has not effectively developed and in certain traditional service markets that may not be ready for an immediate removal of such *ex-ante* regulation.

In the EU, for example, the liberalization process began with niche market segments (*e.g.*, terminal equipment) and moved gradually towards core market segments (*e.g.*, voice telephony). Under the NRF, sector-specific regulation (*ex-ante* regulations) is to be confined to cases where effective competition is absent (*i.e.*, in markets where one or more undertakings exist with significant market power and where national competition law remedies are not sufficient to address the problem).[16] As such, the NRF places greater reliance on generic EU competition law, and seeks a "market-based" approach to regulation, as opposed to a "service-based" approach.

Under the Framework Directive, the EC must identify the product and service "markets" that may raise competition issues and may be subject to *ex-ante* regulation.[17] (See Table 1 for the list of markets currently identified by the EC.) In turn, the national regulatory authorities (NRAs) must conduct an analysis of the markets that have been identified as being susceptible to regulation. If after conducting its analysis, the NRA determines that regulation is warranted, it may propose a draft measure, which the EC may request be withdrawn under certain predetermined criteria. Under this system, *ex-ante* regulation is only warranted based on a finding that effective competition does not exist in the relevant market.

Table 1: Markets Susceptible to *Ex ante* Regulation in the EU[18]

Retail Level		**Wholesale Level**	
1.	Access to the public telephone network at a fixed location for residential customers.	8.	Call origination in the public telephone network provided at a fixed location.
2.	Access to the public telephone network at a fixed location for non-residential customers.	9.	Call termination on individual public telephone networks provided a fixed location.
3.	Publicly available local and/or national telephone services provided at a fixed location for residential customers.	10.	Transit services in the fixed public network.
4.	Publicly available international telephone services provided at a fixed location for residential customers.	11.	Wholesale unbundled access (including shared access) to metallic loops and sub-loops for the purpose of providing broadband and voice services.
5.	Publicly available local and/or national telephone services provided at a fixed location for non-residential customers.	12.	Wholesale broadband access.
6.	Publicly available international telephone services provided at a fixed location for non-residential customers.	13.	Wholesale terminating segment to leased lines.
7.	The minimum set of leased lines.	14.	Wholesale trunk segments of leased lines.
		15.	Access and call origination on public mobile telephone networks.
		16.	Voice call termination on individual mobile networks.
		17.	The wholesale national market for international roaming on public mobile networks.
		18.	Broadcasting transmission services, to deliver broadcast content to end users.
[Note that markets are often referred to by the numbers assigned to them under the EC Recommendation (*e.g.*, the mobile termination market may be referred to as "Market 16").]			

3.3.2 Jurisdictional Division of Power Between Competition Authorities and Regulatory Institutions

The relationship between communications laws and competition policies can be depicted through the jurisdictional division of power between competition authorities and regulatory institutions. When there are separate entities enforcing sector-specific and competition rules, balancing the interplay and jurisdiction between them is a key element in allowing the industry to expand. Conversely, where a single entity exists (either a sector regulator or a general competition authority), policies applicable to the ICT market should also encourage growth and competition in the industry. Examples of different models adopted include the following:

1. The most common scenarios are where countries have both a telecommunications regulator and one or more entities with jurisdiction over economy-wide competition matters (*e.g.*, the United States, Chile, and South Africa); or have a telecommunication regulator and a competition authority with a specific mandate over competition in the telecommunications sector (*e.g.*, Australia);

2. Another model, adopted in certain developing countries, is where no competition authority exists, but a sector-specific regulator with sector-specific competition mandates (*e.g.*, Dominican Republic);

3. The least common model is where a sector-specific commissioner is part of the general, economy-wide competition authority.

The structure of competition policy and the interplay between institutions is not necessarily pre-determined by the legal system in place. In some cases, this may be the result of political and practical considerations such as management of existing human and financial resources, the development and size of the ICT market, and the level of competition in the market.

The online Legal and Institutional Aspects of Regulation module includes a section on practical lessons for developing countries in coordinating the activities of telecommunications regulators and competition authorities.

Box 2: Models Adopted in the U.S. and the Dominican Republic

In the United States, the Federal Communications Commission (FCC) is the independent regulator in charge of overseeing interstate and international communications, but in matters involving competition issues, it must coordinate with the U.S. Department of Justice (DOJ) or the Federal Trade Commission (FTC), depending on the industries involved and the economic impact.[19] In the case of merger analysis, for instance, the DOJ and FTC focus purely on competition issues, basing their decisions on whether a particular transaction will result in an accumulation of market power that would reduce competition and affect consumers.[20] While the FCC also may engage in a competition analysis, it applies a broader sector-oriented analysis, focusing on whether the transfer would benefit or harm the public interest, convenience, and necessity.[21] In some cases, the FCC may approve a merger, but may place conditions on the merger after consultations with the DOJ on competition issues.

In the Dominican Republic, on the other hand, there are no general competition rules or authority. Instead, an extensive body of telecommunications regulations grants the telecommunications regulator exclusive power over competition matters in the industry. Under the General Telecommunications Law (GTL)[22] the regulatory authority (Instituto Nacional de Telecomunicaciones or INDOTEL) is responsible for "preventing or correcting anticompetitive or discriminatory practices according to the GTL and its regulations."[23]

3.4 Impact of Other Legislation

The effective implementation of telecommunications regulation and the achievement of its objectives may be influenced by other laws that impact the sector. These laws, which generally include tax, foreign ownership, consumer protection, and real property laws, may facilitate or hinder the attainment of an enabling environment for the development of the sector.

The regulation of ICT services is affected by the taxation of such services, whether at the federal, state or local level. Although taxes are important sources of revenue to many governments, excessive taxation of the telecommunications industry can retard competition, and discourage technological development and investment in the sector.[24]

Similarly, foreign ownership restrictions – under either telecommunications legislation or a country's foreign investment laws – have an important impact on attracting investment. Where foreign ownership restrictions continue to exist, governments should balance the reasons for such restrictions with the need for creating a favorable environment conducive to competition and development, as well as adequate access to capital.

Consumer protection regulations also play a key role in creating an environment that promotes public interest, confidence and participation in the ICT sector. Most countries have enacted consumer provisions in telecommunications legislation, such as number portability, quality of service and universal service. Many countries also have general

consumer laws to protect consumer interests in the purchase of goods and services, which also affect telecommunications. However, consistency between sector-specific and general consumer protection laws must be maintained to ensure that the highest standard of consumer protection prevails.

In addition, the constantly evolving technological developments in the ICT sector raise certain challenges that may not be addressed by telecommunications laws or traditional consumer protection laws. In response, many countries are adopting additional laws and regulations focused on consumer protection matters in the ICT sector, such as intellectual property rights, spam, privacy, fraud, identity theft, cyber crime, and e-commerce transactions. Such legislation is necessary to create trust and confidence in using digital networks.

Finally, it is worth noting that national laws regarding real property transactions also can impact the effectiveness of telecommunications legislation in several ways. Real property laws regarding ownership rights and government confiscation are factors investors usually consider when deciding whether to invest in a particular country. These laws influence an investor's confidence in the stability of the sector.

The online version of the Legal and Institutional Aspects of Regulation module includes examples of national or model legislation and regulations related to tax, foreign ownership, consumer protection, anti-spam and real property laws.

4. IMPACT OF CONVERGENCE ON REGULATION

4.1 What is Convergence?

Convergence is generally understood to mean the ability of different networks to carry similar kinds of services or, alternatively, the ability to provide a range of services over a single network, such as the so-called "triple play." As existing networks are modified to offer new services, different infrastructures today can provide a plethora of services (see Table 2).

Table 2: Developing Viable Business Models with Convergence

Multiple service provision under different network infrastructures			
Infrastructure	**Voice**	**Data**	**Video**
Copper line (fiber)	PSTN	DSL, FTTH, FTTC	VOD, IPTV
Cable	Analogue, VoIP	Cable modem	Analogue, DTV
Mobile	Analogue, 2G, 3G	2.5 G, 3G	DVB-H, others
Fixed Wireless	VoIP	Proprietary, 3G, WiMAX, LMDS, MMDS	DVB
Powerline Communications	VoIP	BPL	VOD, DVB, IPTV
DSL=Digital Subscriber Line, FTTH=Fiber to the premise, FTTC= Fiber to the curb, VOD=Video on Demand, IPTV=Internet Protocol TV, VoIP= Voice over internet protocol, DTV= Digital Television, DVB=Digital Video Broadcasting, 2G = Second generation mobile service, 3G=Third generation mobile service, WiMAX= LMDS= Local Multipoint Distribution System, MMDS= Multichannel Multipoint Distribution System, BPL=Broadband over Power Line.			

Source: Telecommunications Management Group, Inc.

Convergence is challenging common perceptions about the best means to license and regulate providers in the ICT sector. To address these challenges, policymakers and regulators are responding in a variety of ways. First, there has been a shift towards an equal or technology-neutral regulatory treatment of different information and communications infrastructure. For example, the EU, India, and Kenya[25] have introduced, or are in the process of introducing, legal frameworks and regulations to regulate aspects of convergence through a flexible and technology-neutral approach.

Second, governments such as Malaysia, Singapore, and the United Kingdom, are modifying the structure of regulatory authorities by providing them with the authority to regulate the telecommunications, broadcasting, and information technology sectors.

Finally, governments are drafting and implementing new laws and regulations to create the necessary legal enabling framework to support an ICT sector. These laws and regulations deal with such issues as intellectual property, content, data protection, security, and computer crime.

4.2 Different Approaches in Implementing ICT Regulation

Generally, three approaches have been taken by countries to address convergence: (i) a legislative approach; (ii) a regulatory approach; and (iii) a self-regulation approach. Each of the approaches presents advantages and disadvantages, but no one approach results in an optimal solution. In general, countries see more effective results when several approaches, especially the legislative and the regulatory ones, are combined.

The online version of the Legal and Institutional Aspects of Regulation module includes numerous practice notes, case studies and other examples of national implementation of convergence measures.

4.2.1 Legislative Approach

The legislative approach involves developing legislation that responds to convergence, either in the immediate term or in anticipation of convergence trends. Legislative solutions define new laws or create new regulatory frameworks to respond to convergence and guide future policy direction. This can be done by developing and implementing a reform of the entire legal framework for telecommunications or by amendments to existing laws.

When designing new legislative frameworks to address convergence, legislators must be mindful not to develop legislation that rapidly may become outdated. Legislation should allow the regulator sufficient flexibility for interpretation so that solutions can be implemented as needed, without constricting future applications and technologies that could benefit the economy and increase consumer welfare.

In addition, the evolution of convergence, combined with the uncertainty about which technologies and services will succeed in the marketplace, requires a continuous review of the applicable legislation. Some jurisdictions, such as the EU and Malaysia, have established a permanent legislative review process to address convergence.[26]

4.2.2 Regulatory Approach

Under the regulatory approach, countries modify existing regulations or institute new regulations to address new technologies rather than developing new legislation to address convergence.

The regulatory approach can be a practical way of addressing convergence. This approach, however, must be carefully managed to minimize inconsistencies between new and existing rules. Most often, the regulatory approach is used by policymakers in conjunction with the legislative approach. This complementary mix allows governments

to establish new legal frameworks to address convergence while dealing with its specific effects through regulation.

For example, this mixed approach was used in Spain, where the government had already implemented the NRF and modified its regulation to allow broader interconnection than traditional switching (*e.g.,* operators were able to interconnect to parts of the infrastructure or have access to wholesale services for subsequent resale (*i.e.,* broadband wholesale service)). Because operators' needs were changing due to increased provision of IP-based systems and services, however, the regulator implemented a subsequent resolution introducing: (i) a capacity-based interconnection system to serve as an alternative to the traditional time-based system and (ii) access to parts of infrastructure and wholesale services.

4.2.3 Self-Regulation Process

The self-regulation process consists of developing and designing convergence policy through an ad hoc or existing consultative body. This body typically is composed of several government agencies, industry representatives, and other interested parties.

The role and functions of these consultative bodies vary, but they generally issue recommendations to the government addressing the need for changes in convergence legislation and/or regulation. A consultative body is a valuable tool that provides a vehicle to constantly review and monitor the effects of convergence and provide first-hand contact with industry and other parties that face issues with convergence on a day-to-day basis. The self-regulation process, however, has certain potential problems, as the intervention of industry representatives within the process may pose a risk in those jurisdictions where competition has not developed. Problems may also arise if significant asymmetries exist among operators, because the consultative body may be dominated by these operators and its conclusions could reflect narrow interests.

Australia heavily relies on the self-regulation process and has several consultative forums for the communications sector, with the Australian Communications Industry Forum (ACIF)[27] being the most important. The ACIF implements and manages industry self-regulation and specifically addressed convergence in a December 2004 meeting on VoIP self-regulatory activities.[28] As a result of such meetings and other subsequent activities, a report on policy and regulatory considerations for new and emerging services was approved and will be formally transmitted to the Department of Communications, Information Technology and Arts (DCITA), the branch of government in charge of telecommunications.[29]

4.3 Modifications to Telecommunications Legislation to Address Convergence

Most legal reforms implemented to address the issues raised by convergence are focused on telecommunications legislation and regulation. Due to convergence, however, legal reforms of telecommunications legislation are increasingly coordinated with and, in some cases even integrated into legislation affecting the broadcasting and information

technology sectors. Reforms due to convergence are following common trends affecting various aspects of telecommunications regulation, particularly in the areas of licensing, spectrum, interconnection, universal service, and numbering.

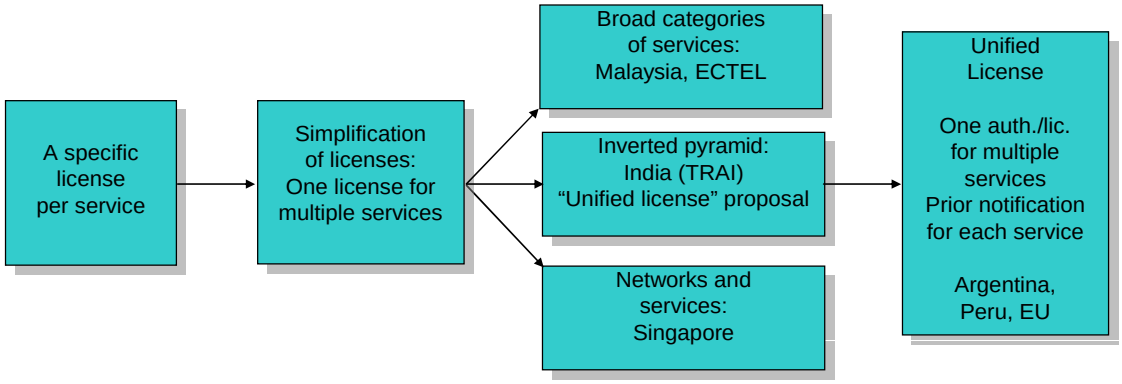
4.3.1 Licensing

Convergence is having an impact on the traditional categorization of service-based and technology-based licensing systems, making it increasingly complicated for regulators to continue to grant licenses in this manner. Because of this, countries are modifying their licensing frameworks to address this new situation by simplifying their licensing regimes (see Figure 5).

The first trend in licensing reform is the introduction of technology-neutral licenses that combine converged services or broaden the types of services that fall within one license. For example, in Malaysia, the prior licensing framework consisted of 31 service-based licenses, whereas its new framework consists of four general and technology-neutral licenses.[30]

A second trend is the introduction of a unified licensing regime, in which licenses evolve into a single license covering a wide range of services. This approach has been or is being adopted by various countries, including Kenya and India. Kenya's new licensing regime, announced in September 2004, adopted a unified and technology-neutral licensing framework that permits any form of communications infrastructure to be used to provide any type of communications service. [31] This licensing regime differs significantly from the previous service-specific licensing regime consisting of 46 types of licenses grouped into nine categories.

Figure 5: Simplification of Licensing Categories



Source: Telecommunications Management Group, Inc.

A third trend is the movement in certain countries towards lighter licensing regimes or de-licensing. De-licensing involves a general authorization or class license system in which operators are free to provide services subject to regulatory obligations. Typically, the operator must submit to the regulator a notification containing minimal information

before, or within a short time after, initiating service. This is the case in the EU member countries, which shifted to a simple authorization regime using minimal regulatory intervention that requires individual licenses only where strictly necessary (*e.g.*, for the use of resources such as radio frequencies and numbering).

A fourth licensing reform trend is to eliminate filing requirements because the services fall outside of the regulator's authority or because the regulator has decided to forbear from regulating a particular service. This approach has been followed in the United States for Internet Service Providers (ISPs) and the services they provide (*e.g.*, e-mail, Internet access, and VoIP). To date, services provided by ISPs are treated as unlicensed "information services" in order to promote the continued development of the Internet.[32] (see Figure 6)

Figure 6: Simplification of Administrative Procedures

Source: Telecommunications Management Group, Inc.

4.3.2 Spectrum

Policymakers and regulators are beginning to introduce changes within spectrum regulations to address the challenges of convergence. First, regulators are granting the right to use spectrum without regard to the type of technology being used (*i.e.*, technology-neutral approach). The premise of a technology-neutral approach is that any service should be provided through any kind of technology in any frequency band, and the use of spectrum can be altered at any time. However, this is limited by certain issues such as the need to manage interference; the need to achieve economies of scale in order to make technologies more cost-efficient; and the restrictions imposed by international coordination of frequencies (*i.e.*, coordination via ITU Radio Regulations). Countries such as Australia, Guatemala, New Zealand and the United States have taken significant steps in creating technology-neutral spectrum policies, allowing spectrum to be allocated for flexible use.

A second response to convergence has been the introduction of spectrum trading and in-band migration. Spectrum trading refers to the ability of licensees to sell or trade their spectrum rights. Within the EU, the NRF allows spectrum trading.[33] The United Kingdom, for example, has already allowed spectrum trading for certain types of licensed transmissions.[34]

In-band migration refers to the policy of allowing operators to use existing licensed spectrum to provide new services. Jurisdictions in the Americas and Asia have used this policy with the introduction of IMT-2000 systems,[35] allowing existing mobile operators

to provide third generation (3G) networks in their assigned frequencies. This has been effective in reducing the implementation costs of these systems, as it allowed operators to use their existing spectrum without incurring the cost of new licenses.

4.3.3 Interconnection

Traditional interconnection regulation was established for telecommunications operators with interconnection rates generally based on time (*i.e.*, per minute). Services based on Internet protocol (IP), however, do not fit within the traditional schemes of switched voice interconnection and require different kinds of access and charges. This is necessary to permit, in a converged environment, the fundamental principle that any network operator is able to interconnect with any other operator regardless of the network (*i.e.*, "any-to-any" interconnection).

Countries are addressing these needs by introducing a series of regulatory measures. Denmark and Argentina have adopted symmetrical interconnection regimes, in which any operator, regardless of the type of network it has, is obliged to interconnect with any other operator.

Similarly, new kinds of "access" have been created through interconnection regulation. To address the different needs of IP network and service operators for interconnection, the EU NRF introduced the concept of "access",[36] principally for origination, which allows ad hoc interconnection to network infrastructure via direct access or resale (such as local shared access[37] or bitstream access).[38]

A relatively new measure being implemented to address convergence needs for interconnection is a flat charge representing the cost of the capacity, rather than a per-minute rate. Some jurisdictions, such as Spain and Colombia, have implemented a capacity-based interconnection modality allowing operators to request a specific capacity for interconnection. Operators pay a flat rate charge reflecting the fixed cost nature of the interconnection capacity.

4.3.4 Numbering

Numbering policies and regulations were originally developed to address voice telephony services. As a result, numbering plans established different ranges for voice services. Within fixed telephony, numbering was divided into geographic areas. With the advent of convergence, however, regulators are finding that modifications to such policies and regulations are necessary.

The proliferation of VoIP services is raising questions among regulators as to whether numbering resources should be assigned for VoIP and whether traditional telephone service operator obligations should be imposed on VoIP providers. For example, in some jurisdictions, providers are allowed to use geographic numbers if they offer services under the traditional voice service regime and are subject to its obligations. Other countries such as Singapore, South Korea and some EU member states (*e.g.*, Ireland, France, Germany, and Austria), have created a specific numbering range for VoIP

services, due most notably to the nomadic use of the service. Finally, other countries, such as Spain and the United Kingdom, have combined both measures, and grant geographic numbers to VoIP providers if they operate under the voice service regime. They also grant specific number ranges if VoIP providers operate under the "information service" regime.

A second regulatory modification related to numbering is the introduction of inter-modality portability (*e.g.*, porting a number from a fixed to a mobile network or vice versa). For example, the United States provides geographically restricted inter-modal portability, and in Argentina, the telecommunications law allows inter-modal portability to be implemented by the regulator although it has not been adopted yet.

The future direction of numbering policies, however, may be potentially defined by ENUM developments. ENUM is an international initiative on electronic numbering, and consists of a protocol that converts a telephone number of the public switched telephone network (PSTN) into an IP address.[39] By translating a PSTN number to an IP address, ENUM would make it easier to contact people through electronic means (*e.g.*, linking users' email, telephone number, fax and instant messenger address allowing them to be reached by any of these means through a single number). Several countries including Australia, China, France, Japan, Republic of Korea, and Sweden, have started ENUM trials.[40]

4.3.5 Universal Access and Universal Service

Convergence is challenging traditional universal service policies and the means by which universal access and universal service objectives are currently met. The primary question confronting regulators in this area is whether operators offering converged services such as VoIP, should have universal service obligations, and whether they should contribute on the same basis as traditionally established operators. Most countries have declined to impose universal service obligations on such providers due to concerns that this would inhibit their development and the development of new technologies and new market players. However, this trend seems to be shifting as more traffic shifts from PSTN to IP networks. In Canada, for example, universal service requirements have been imposed on all service providers, including VoIP providers.

4.4 Modification to Broadcasting and ICT Legislation to Address Convergence

Today, the ICT sector requires governments to undertake a broader perspective of law and regulation and assess the impact and interaction of telecommunications legislation with ICT-related legislation, such as media/broadcasting legislation, content laws, intellectual property laws, and privacy laws.

With digitalization, content formerly dedicated to specific networks can now be conveyed on different infrastructures and delivery platforms. This poses a potential conflict in regulation as different standards of content regulation are applied to telephony, sound and television broadcasting, print media and the Internet. With convergence, policies may

require change to achieve the common social objectives of promoting and protecting cultural traditions, public service, and protecting citizens from harmful material across all types of networks and delivery platforms.

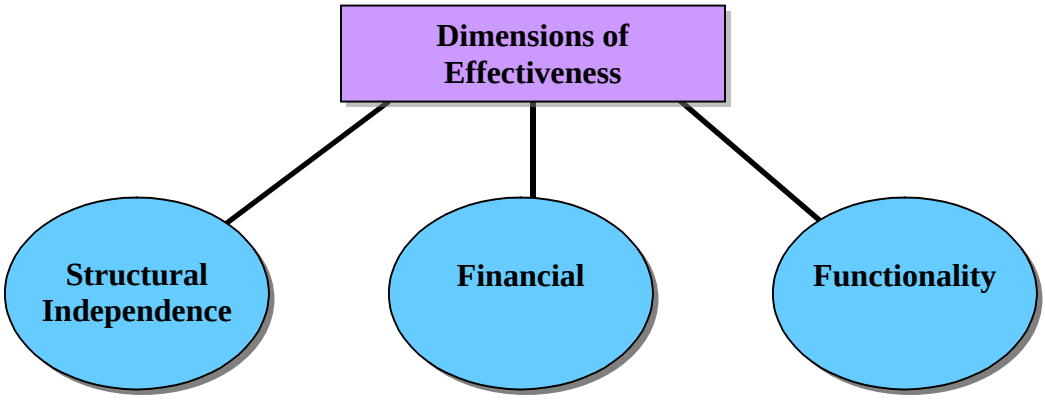
Closely related to content legislation is the issue of protection of intellectual property rights associated with the growth of ICT use. In addition, the ICT environment has greatly facilitated the global transmission of personal information, making it easier to collect and share private information through the use of the Internet. As a result, many countries have enacted data protection legislation to protect individuals' privacy rights.

5. ELEMENTS FOR AN EFFECTIVE REGULATOR

The aim of a regulator is to ensure that the sector is working properly and that consumer and other stakeholder interests are protected in a fair and balanced manner. An effective regulator is the vehicle to ensure credible market entry, as well as compliance with and enforcement of existing regulations. To achieve this, governments must create and maintain an environment conducive to good governance and regulatory success.

Independence is a critical attribute for a regulator to be effective. Effectiveness, however, has additional dimensions (see Figure 7). In a broad sense, an effective regulator is structurally and financially independent, but the real effectiveness of the regulator will depend on how it achieves successful functionality, ideally in an independent and autonomous manner.

Figure 7: Dimensions of Effectiveness



Source: Telecommunications Management Group, Inc.

5.1 Structural Independence

The WTO Reference Paper, which requires countries to establish a regulator separate from the operator, has prompted many countries to establish a structurally independent regulator that separates the function of regulating the telecommunication market from that of supplying services.[41] Providing a regulator with structural independence reduces the possibility of political or industry capture. When a regulatory body bows to external pressure from operators or other government entities, it often lacks independence and its decisions are neither objective nor transparent.

5.2 Financial Independence

In addition, the funding sources and budgeting processes of regulatory authorities also can have an important impact on their independence, efficiency and the cost of regulation. The source of a regulatory authority's funds and the process by which these funds become part of the authority's actual budget can directly impact the degree of a regulator's autonomy and competence when carrying out its responsibilities. While a regulator's budget may come from the government or from the telecommunications sector itself through licensing fees, fines and other administrative charges, the key element is that funding should be free from political and private interest influence.[42]

In certain countries, the regulator's budget is part of the government appropriations allocated to the ministry under whose authority it resides. In these cases, the government's authority to determine the budget gives it a degree of direct influence and intervention, or at least the appearance of such, over the policies and regulations the agency may wish to implement. This may reduce the agency's effectiveness in regulating the telecommunications sector.

On the other hand, relying on multiple sources of funding rather than solely on government appropriations allows regulators to have more financial independence and can make them less subject to outside influences. Regulators such as the FCC or the National Communications Board (SIDEAMET) of Estonia rely on several sources of funding, although they have little or no control over the funds they collect. Other regulators, in countries such as Bahrain, Botswana, Brazil, Nigeria, Tanzania and Uganda, have been granted financial independence, coupled with the authority to manage and administer their own funds. This has been found to give regulatory agencies more regulatory certainty so that they can assert more independence in regulating the sector.

5.3 Functionality

Despite best attempts, a government may establish a regulator that is structurally and financially separate from the other branches of government, but yet fails to function in an effective manner. In contrast, a regulator may not be legally separate from the other government agencies, but may have functional effectiveness. Unfortunately, no single feature can ensure functionality. Rather, functionality is predicated on a combination of elements such as well-defined functions and responsibilities; appropriate decision-making authority and enforcement and dispute-resolution powers; clear rules regarding the appointment, removal and mandate of the regulatory authority; incentives to promote professional expertise of the staff; and adequate provisions to address ethical and conflict-of- interest concerns. Functionality is also predicated on regulations that guarantee the consistency, timeliness and accountability of the regulator's decisions, as well as procedures to ensure transparency and public participation in the regulatory process. Without functional effectiveness, it is difficult, if not impossible, for a regulator to attain the necessary credibility among participants in the sector and potential investors.

6. ORGANIZATIONAL AND INSTITUTIONAL APPROACHES TO REGULATION

6.1 Institutional Design Options

Once the regulator's mandate and competencies have been established, it is important to determine the regulator's institutional design, as well as its relationship with the government, industry, and the public. The institutional design of the regulator affects the structure of the regulator, including its leadership and management organization and its organizational and administrative structures.

Countries have considered four main institutional design options when faced with the task of designing and creating telecommunications regulatory entities: (i) single-sector regulator; (ii) "converged" regulator; (iii) multi-sector regulator; and (iv) no specific regulatory authority per se but rather a general competition authority with responsibility for overseeing the telecommunications sector.

No institutional design *per se* guarantees the successful functioning of the regulator, but when designing the institutional structure, the following important principles should be kept in mind.

- Regulators must be perceived by industry to be independent – thus the importance of transparency and accountability of the regulator.
- Regulators should have the expertise to assess and make sound judgments on both technical and industry-specific issues – thus the importance of appropriate appointment and staffing mechanisms.
- Regulators must take into account various viewpoints and interests, including economic, social, and political objectives. This balance should be reflected in the institutional structure and in the system of checks and balances.
- The institutional design, internal structure, and administration must be sufficiently flexible to allow the regulator to respond to market realities.

6.1.1 Single-Sector Regulator

The single-sector regulator's sole function is to oversee the telecommunications sector. This type of organizational structure focuses mainly on the telecommunications (and sometimes postal) sector, with other government entities responsible for broadcasting and information technology issues.

A key advantage of this option relates to staffing, since the staff is specifically dedicated to telecommunications issues. This establishes a core of specialized professionals with a strong set of legal, policy, engineering, and technical skills focused on sector issues. The perceived need for a specialized skill-set led the Cape Verde Government to establish a separate ICT-specific regulator in 2004 (Institute of Communications and Information Technology – ICTI) in parallel with the existence of a multi-sector (economic) regulator

(Autoridade de Regulamentação Economica – ARE) which also has a mandate to regulate telecommunications.

Another benefit of single-sector regulators relates to the origin of their staffing. In many cases, single-sector regulators tend to initially inherit staff from the former state-owned post and telecommunications companies (PTT). They therefore have a core of specialized professionals from the start with a thorough understanding of the technical issues and strong engineering skills, which is a key advantage when dealing with complex network issues. Opponents of the single-sector regulatory structure argue that the origin of this specific skill set is, in fact, one of the key disadvantages of establishing a single-sector regulator. These critics argue that staff could be biased in favor of the incumbent operator, and thus more subject to capture by dominant forces. While this is an issue to be considered, it is not unique to the single-sector regulator as discussed below.

An additional disadvantage of having a regulator focused on the telecommunications sector alone (or for any other single sector) is that too many regulators are created for different sectors, thus leading to a higher cost of regulation. Similarly, and especially with convergence in the ICT sector blurring the boundaries between industries, overlapping responsibilities between sector regulators has also become an issue. This overlap may sometimes lead to duplication of regulations and require authorizations for what are essentially similar services being offered to the public.

The challenges of convergence have led several countries, including South Africa and the United Kingdom, to move away from single-sector regulators and evolve towards a converged regulator, thus merging agencies in charge of the various aspects of the communications sector.

6.1.2 Converged Regulator

With a converged institutional design, all communications services *i.e.*, telecommunications, including radio communications, broadcasting and media (and in some instances postal services), are under the umbrella of one agency. Several countries such as Austria, Italy, Finland, the Netherlands, Saudi Arabia, Singapore, South Africa and the United Kingdom, have followed the route of converging their institutions dealing with the ICT sector, typically combining formerly discrete agencies responsible for telecommunications, broadcasting or information technology into one entity.

The converged regulator, like the single-sector telecommunications regulator, tends to be strong in specialized engineering skills in the communications sector, a critical skill set to deal with complex network issues. In addition, the converged communications regulator also meets the challenges posed by service convergence, overcoming one of the main disadvantages of a single-sector regulator (*i.e.*, a regulator overly focused on the telecommunications sector).

For internal administrative purposes, this model provides greater flexibility and is administratively simpler, given that all services are within one government agency, and the staff responsible for specific services can work with other offices of the regulator that

are dealing with related issues. Moreover, a more consistent approach can be taken within the regulatory authority as it adapts to changing technologies and their effect on legacy regulations. In addition, as the regulatory mandate is broadened to accommodate convergence, fewer individual regulators are deemed necessary, therefore resolving some of the overlap of regulatory functions and bringing down the cost of overall regulation.

6.1.3 Multi-sector Regulator

Multi-sector regulators oversee not only the telecommunications sector, but other industry sectors with common economic and legal characteristics (*e.g.*, telecommunications, water, energy, and transportation). Costa Rica, the Gambia, Jamaica, Latvia, Luxembourg, Niger and Panama, as well as state public utility commissions in individual states in the United States, have chosen this type of organizational structure.

One of the main arguments generally raised in favor of a multi-sector regulator is based on the perceived lack of resources and the need for economies of scale to effectively regulate the different infrastructure industries and sectors. It is often argued that with this type of structural organization, one set of staff can be used to oversee a variety of industries. As the cases of Belize and Luxembourg demonstrate, however, staff is generally recruited in terms of the sector it is regulating, and only legal and occasionally economic staff is pooled to deal with specific issues that occur across the sectors. Many issues, such as tariffing or spectrum management, are not transferable between sectors.

In addition, the suitability of a multi-sector regulator to properly address next generation communications technologies and services has been questioned. This is because a risk exists that, where economists and legal experts are shared across the utilities sector, the pool of expertise will become more diluted, thus compromising the capability and ultimately the credibility of the regulator.

Another disadvantage of this model is that often the telecommunications sector is the most liberalized sector under the auspices of the multi-sector regulator. It therefore can be negatively affected if it is regulated in an environment with utilities that are progressing at a different pace, where the needs and priorities are different. Moreover, by adding sectors, such as electricity and gas, that do not always produce revenues for the regulator, the telecommunications sector may bear a disproportionate share of the costs of regulation, potentially driving up regulatory costs for telecommunications providers.

Supporters of this model argue that having a multi-sector regulator can reduce political and other influences regarding the decision-making process as opposed to, for example, the single-sector regulator. Despite such claims concerning “capture” (meaning undue influence by politicians and/or dominant players), this does not necessarily seem linked to the institutional design option *per se* but is more a product of whether a clear set of “checks and balances” is incorporated in the design of the regulator.

6.1.4 No Specific Telecommunications Regulatory Authority

An alternative institutional approach is to decide not to create any telecommunications-specific regulator, but instead rely on the application of competition and antitrust rules rather than on detailed sector-specific rules and institutional designs.

This model is inexpensive and simple to implement. Moreover, reliance on economy-wide rules and institutions to regulate the sector promotes a coherent treatment between telecommunications and other sectors. Another advantage is that there is less risk of political capture where the judges are ultimately in charge of enforcing economic regulation in the telecommunications sector.

Among the disadvantages of this option is that non-specialized judges are ill-equipped to deal with complex telecommunications regulatory issues. Indeed, sector-specific issues such as interconnection and number portability may be difficult to resolve in the absence of sector-specific requirements.

Today, there is no actual functioning example of this model in any country. Indeed, until the passage of the Telecommunications Act of 2001, New Zealand was the only country implementing this model, as it had chosen to entrust antitrust authorities with the task of administering all rules controlling market power in telecommunications.[43] Instead of sector-specific regulation, the regulatory regime for telecommunications in New Zealand relied primarily upon general competition law, the Commerce Act 1986, to prevent anticompetitive behavior. The Telecommunications Act of 2001, however, established the position of a Telecommunications Commissioner, a specialist stand-alone commissioner within the Commerce Commission, to regulate the telecommunications sector. The commissioner resolves disputes over regulated services; reports to the Minister on further designations or specifications of additional services; and monitors and enforces the Kiwi Share obligations.[44]

6.1.5 Different Organizational Structures

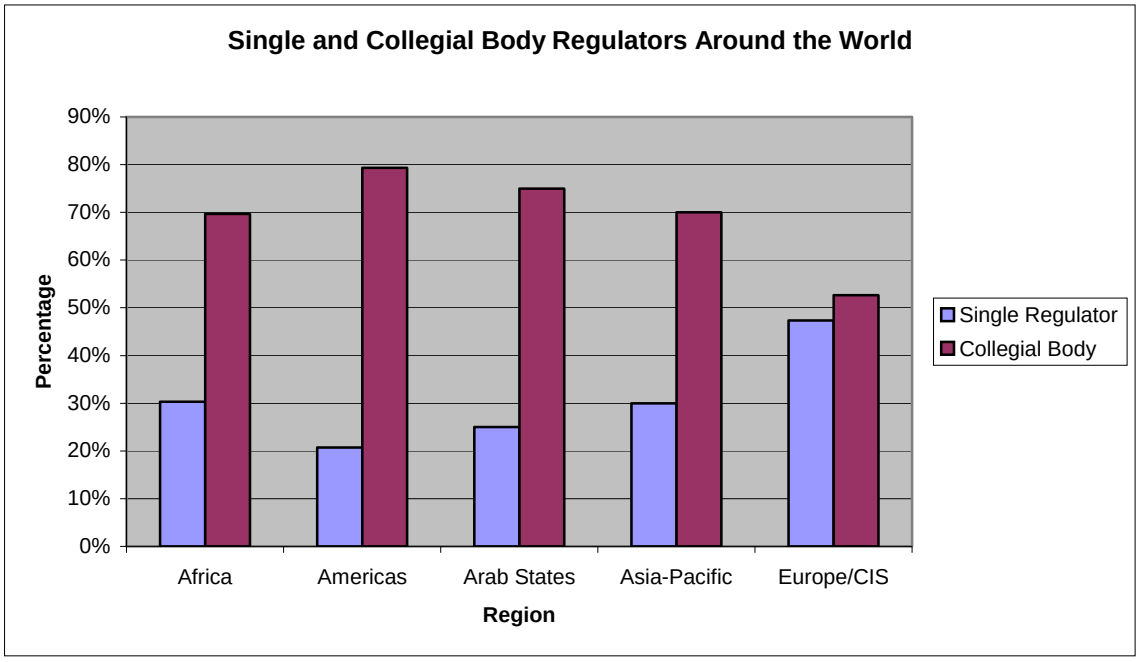
Determining the ideal organizational structure for a regulatory authority requires an assessment of various factors, including the country's needs and objectives; political environment; legal requirements; and available expertise in the labor market.[45] Essentially, there are two models of leadership organization for regulatory authorities: (i) the collegial body (a board or commission composed of multiple members); and (ii) the single regulator (often given the title of chairperson or president). Each has its advantages and disadvantages, and variations of each model are in use around the world.

The collegial body model usually involves a board or commission made up of individuals with different areas of expertise, potentially bringing those varied perspectives to bear on each regulatory issue. In addition, a collegial body could be seen as more independent, as it is less likely that all members would be influenced by the same actors, whether in the government or the private sector. As in any decision-making process involving more than one actor, however, the development of regulatory decisions can be a slower process and more subject to internal struggle.

By comparison, the single regulator model has the potential benefit of a consistent approach to regulation and decision-making, as decision-making authority is vested in a single individual who may have a unified plan for the telecommunications sector. In contrast to the collegial body model, single regulators can make decisions much more quickly, even when constrained by due process regulations. However, the single regulator is also potentially more vulnerable to undue influence exerted by external actors, whether in the government or in the private sector. In addition, a single individual may not be able to match the expertise of a collegial body made up of individuals from different backgrounds, although experienced staff can provide substantial expertise.

The number of regulators led by collegial bodies and single regulators continues to fluctuate as governments restructure their regulatory frameworks for the telecommunications sector. Based on recent responses received by the ITU to its annual Telecommunications Regulatory Survey, however, approximately 75 percent of the regulators are collegial bodies with the remaining 25 percent constituting single regulators.[46] Using 2005 data,[47] it can be seen that significant differences exist between the balance of collegial bodies and single regulators in various regions (see Figure 8).

Figure 8: Single Regulators and Collegial Body Regulators Around the World



Source: ITU World Telecommunication Regulatory Database 2005

6.2 Administrative Structures: Staffing and Remuneration

The administrative structure of the regulator, including staffing processes, the legal status of the staff, remuneration principles, and the ability to contract outside consultants provide key insights into the independence, depth of knowledge, and impartiality of the regulator, as well as its ability to attract and retain qualified personnel.

By examining a regulator's qualifications, we can discern the types of expertise present among the leadership and staff. In India, for example, members of the TRAI must have special knowledge of, or professional experience in telecommunications, industry, finance, accountancy, law, management, or consumer affairs.[48] By requiring regulators or collegial body members to have experience in certain professional sectors, an effort is being made to ensure that the regulatory authority is led by individuals with expertise beyond simply telecommunications. In other countries, such as the Cameroon, Ecuador, Malaysia, and the United States, the approach is to avoid specifying *any* requirements regarding the expertise of the regulator's leadership. While this approach certainly provides the most flexibility to appoint regulators, in practice, it is unlikely that a completely unqualified individual would be appointed to lead a regulatory authority.

In addition, the manner in which the head of the regulatory authority is appointed provides important insights into the independence of the regulator. Generally, if the head of a regulatory authority is appointed by a single branch of government, it is less likely to exhibit independence than one who has the support of multiple branches of government. For example, a collegial body may feature members selected by different branches of the government, ensuring that no single branch has excessive influence over the regulatory authority. This is the case of countries such as Nigeria[49] and the United States,[50] where the commissioners are appointed by the president of the country, but require confirmation by the country's Senate. On the other hand, countries such as the Dominican Republic, Turkey and Uganda, provide for a system in which other stakeholders (*e.g.*, service providers and professional organizations) nominate certain members of the regulator's board.

By comparison, regulatory authority heads that serve at the pleasure of the government, or the pleasure of one particular branch of the government, such as those of Barbados and Indonesia, may be viewed as less independent because their job security is closely linked to one particular actor.

The legal status of the regulator's staff is an important indicator of the protections afforded to the staff. This is particularly true regarding liability for the decisions made by the regulator, as protection from liability is an important consideration for current and potential staff members. In the majority of cases, the staff members of regulatory authorities are considered public employees (or other similar terms, such as civil servant or public servant), making their employment subject to the same rules applied to public employees throughout the government. In some countries, such as Canada, India, and Singapore, such status also is conferred to the head(s) of the regulatory authority. However, not all regulatory authorities classify their employees as public employees. In Botswana, employees of the regulator are considered parastatal staff and are subject to the special service conditions issued for such regulatory authority.

Remuneration principles for both leadership and staff positions provide insight into multiple issues, including the status afforded to the leadership and staff as compared to other government employees and the flexibility afforded to the regulator to offer salaries that will attract and retain qualified personnel.

In most cases, the compensation of regulatory authority heads or collegial body members is lower than what could be earned in equivalent executive positions in the private sector. Particularly in the case of leadership positions, however, it is not uncommon for regulators to be composed of individuals who are less concerned about compensation than about some combination of public service along with the experience, public exposure, and contacts that can be gleaned through a regulatory leadership position. In several cases, the pertinent laws or regulation allow for the government or its appointed representative to adjust salaries for the head of the regulatory authority or the collegial body members as necessary. This is the case of the Sudan, where the members of the board are paid such remuneration as may be specified and approved by the competent minister.[51] In other countries, the salaries of such officials are set by law, although not in explicit numerical terms. For example, in Bulgaria, the collegial body members of the regulator are paid salaries that are tied to the salaries paid to legislative representatives.[52]

The ability of regulators to contract outside experts is another important enhancement to the regulator's ability to act independently and efficiently, providing that there is the potential for impartial analysis, enhancement of capacity that is lacking within the regulator, and solicitation of advice from concerned stakeholders. In Bahrain, for example, the Telecommunications Regulatory Authority's General Director is authorized to employ such consultants as will enable the regulator to meet its obligations under the law, while also taking budget considerations into account.[53]

Some regulators are also empowered to delegate their powers not only to particular divisions within the authority, but also to outside experts. This is the case of countries such as Singapore, where the Info-Communications Development Authority of Singapore (IDA) is empowered to create committees for purposes which the IDA feels would be better managed or regulated by a committee. Such committees may be comprised of personnel from either within or outside the IDA.

In addition to hiring outside consultants and delegating authority, another method of outsourcing is the establishment of advisory or consultative committees. Advisory committees are generally comprised of interested parties or key stakeholders as identified by the regulator. This structure provides regulatory authorities with outside expertise that can be drawn upon in the course of normal business, but which are not employed to carry out a particular regulatory task or empowered with any delegated authority role. Regulators empowered to employ such advisory committees include Australia,[54] Bahrain,[55] Hong Kong (SAR),[56] and the United States.[57]

6.3 Separation of Powers and Relationship of Regulators with Other Entities

The mandate and competencies of the regulatory authority as well as its relationship with government and other market players depend on the delegation of powers by the state. The degree of delegation of such powers is determined by the legal tradition of the country and the political will to create an independent and competent regulatory authority. These factors influence the specific responsibilities, authority, and accountability for the performance of the regulator's specific activities.

Although complete "independence" is nearly impossible to attain, the regulator should have sufficient independence to implement regulations and policies without undue interference from interested parties such as politicians or other government agencies (functional independence). The institutional regulations put in place by laws and regulations as well as the administrative structure of the regulatory authority are critical to ensure such independence, as such, the degree of independence differs considerably from country to country.

The most common institutional structure used today is the establishment of an independent regulatory authority with responsibility for implementing and administering the regulatory framework, leaving policymaking responsibilities to a particular ministry (See Table 3).

Table 3: Regulatory Institutional Structure

Function	Responsible Organization
Policy development	Government, ministry or executive branch
Regulation	Separate regulatory authority
Network operation/service provision	Privately and/or commercially operated telecommunications operators

However, it should be noted that independence does not mean that regulators should function in a vacuum, particularly in countries where the legal and judiciary infrastructure is weak. Independence must be balanced with clearly identified requirements for accountability. This involves establishing: (i) detailed policies and laws setting forth explicit objectives governing the regulator; (ii) specific requirements for reporting to the government or parliament; (iii) procedural requirements; and (iv) the possibility of judicial review.

6.4 Legal Status of Regulatory Authorities

The legal status of the regulatory authority is generally based on providing the most appropriate organizational structure to ensure consistency with the legal and administrative framework of the country. Thus, it is closely tied to the political and legal system of each country. Most regulatory authorities are either public or semi-public institutions, although some regulatory bodies are established as corporate bodies. However, as the cases of Portugal and Austria demonstrate, in practice, regulators legally established as corporate bodies appear to function in much the same way as regulators that are administrative bodies in terms of reporting lines, budget, and internal administration.

In addition, telecommunications regulatory authorities around the world have a variety of responsibilities that fit loosely into various categories reflecting elements of the three branches of government. Regulators in many countries have judicial or quasi-judicial powers as well as legislative or quasi-legislative powers, depending on their specific mandate. In the case of the United States, state public utility commissions, which have jurisdiction over "public utilities" operating within the several states, act in both a quasi-legislative capacity by setting rates and approving tariffs, and a quasi-judicial capacity in hearing complaints and adjudicating rule violations against specific parties.

6.5 Ethics Rules and Conflicts of Interest

The ability of a regulator to govern legitimately and effectively is based on the real and perceived integrity, honesty, and ethical behavior of its officials and employees and their decisions. Thus, it is necessary for regulators to implement an ethics framework to govern the activities of their employees and ensure adherence to minimum standards of professional and ethical behavior.

At the heart of any ethics framework is the prevention of conflicts of interest, which can jeopardize the ability of a regulator to make an objective and transparent decision. One way to establish the core values and standards of conduct that should govern public service is to adopt and enforce a code of ethical conduct that binds all employees. In most countries, ethics codes for the public service sector serve as general ethical guidelines for all government agencies, including independent regulatory entities. However, different departments, agencies, and regulators may develop supplemental guidelines to take into account their specific functions and circumstances. A code of ethics can be part of a more comprehensive administrative code, such as the United Kingdom's Civil Management Code,[58] or it can be promulgated as separate legislation, such as Canada's Conflict of Interest and Post-employment Code for Public Office Holders.[59] Other regulators, such as Bahrain's Telecommunications Regulatory Authority, include conflict-of-interest provisions in the telecommunications legislation.

A code of ethics may encourage employees to avoid situations that may result in a potential conflict of interest or give the appearance of impropriety. This is the case, for example, of the Hong Kong (SAR) Civil Servant's Guide that provides the following guidelines: "avoid being placed in a position of obligation to anyone by accepting excessive entertainment or favors" and "avoid putting yourself in a position that may arouse any suspicion of dishonesty, or of using your official position to benefit yourself, your family, relations or friends."[60]

Employees are also typically required to disclose any conflicting financial interests or personal interests or the receipt of any gifts over a certain monetary value. For example, the Brazilian telecommunications regulator Anatel's internal administrative regulations prohibit the agency's employees from participating in administrative procedures when they: (i) have a direct or indirect interest on the subject matter being acted upon; (ii) have participated or may participate as an expert, witness or representative, or if such situations involve a spouse, relative, or relative in the third degree of consanguinity; or (iii) are in judicial or administrative litigation with the interested party.

Where a conflict of interest is identified, the employee may be asked to resign or to divest the conflicting interest. For example, in Canada, other than "exempt assets,"[61] public office employees must declare and/or divest themselves of "controlled assets," which are those assets that could be directly or indirectly affected as to value by government decisions or policy in which the employee's agency has some role.[62] Another resolution may be the recusal, the disqualification, or removal, of the employee from the particular matter that involves a conflict of interest.

The online version of the Legal and Institutional Aspects of Regulation module includes numerous examples of national ethics codes and other reference materials related to codes of conduct and the acceptance of gifts.

7. FUNCTIONAL ASPECTS OF REGULATION

7.1 Overview of Regulator's Competencies and Mandate

When measuring the effectiveness and independence of a regulator, it is necessary to look not only at the structural and organizational design, but also at the functional aspects of regulation. To regulate effectively, a regulator should possess the proper authority and competency, in addition to the institutional design, to exercise its regulatory functions. The scope of the regulator's mandate should be clearly established. This mandate can vary depending on the degree of independence of the regulator and its interaction with other entities responsible for the ICT sector, such as the sector ministry.

Telecommunications regulators generally are granted authority to carry out a broad range of functions through legal instruments such as the telecommunications law, subordinate regulations, and government decrees. These functions include the authority to conduct rulemakings and issue regulations; grant licenses and other authorizations; undertake adjudication and enforcement matters; and address various telecommunications issues, including interconnection, price regulation, numbering, and spectrum management.

7.1.1 Rulemaking Function

The rulemaking function allows regulators to issue proposed regulations setting forth their intended procedures before issuing new rules and regulations. To fulfill this function, regulators must implement appropriate internal procedures that not only include detailed steps to govern all aspects of the regulator's decision-making process, but also have the institutional capacity necessary to effectively handle its regulatory roles.

The rulemaking function generally includes the following procedures: petitions for rulemaking; requests for declaratory ruling; complaint procedures; license applications; license modification requests; guidelines for interaction with members of the public and interested parties during consideration of a particular issue; procedures for the formal issuance and publication of decisions; and procedures for seeking formal appeal or reconsideration of regulatory decisions. In countries such as the United States, the regulator relies heavily on rulemaking procedures to interpret and apply the relevant communications legislation.

7.1.2 Oversight Function

This function consists of the regulator's ability to monitor the performance of telecommunications companies and ensure compliance with telecommunications regulation and other subordinate rules. To ensure the effectiveness and transparency of the oversight function, regulators must implement detailed subordinate guidelines such as dispute resolution and enforcement procedures.

Additionally, to ensure compliance and enforcement of regulations and license conditions, the regulator must have the authority to investigate the activities and company records of service providers when needed, and to impose penalties for violation of laws,

regulations or license conditions. This need is accentuated in markets transitioning to competition, as incumbents have clear incentives to delay the entry of such new market players to prolong their dominance. In Peru, for example, the regulator's oversight functions include the power to request information from both public and private parties. For instance, it may request telecommunications companies to provide information regarding items such as their financial records, customer contracts, and installed infrastructure.

Generally, regulations regarding monitoring and enforcement include procedures for investigating violations, determining fault standards, imposing penalties, requesting the regulator's review of enforcement decisions, and submitting appeals to the regulator or to the courts.

7.1.3 Licensing

In most countries, licensing is one of the primary functions of the regulator, although in certain countries, this responsibility falls under the jurisdiction of the sector ministry or is shared between the regulator and the ministry. Through licensing, governments often implement policies aimed at opening the market, providing services to underserved areas, modernizing telecommunications infrastructure, and supporting other ICT policies.

Licensing responsibilities generally include: preparation and publication of model licenses; development of license application guidelines and evaluation criteria; and establishment of license fees and renewals. Recently, regulators have begun to re-examine their licensing practices as a result of increasing technology convergence, and are moving towards unified or converged licensing models.

7.1.4 Competition Policy and Competitive Safeguards

Liberalization and increased competition in telecommunications markets require active regulatory involvement to provide new entrants with a level playing field when attempting to compete against well-established incumbent operators. Incumbent operators usually have substantial advantages, such as a legacy ubiquitous network that is largely depreciated, a substantial customer base, and market power.

New entrants require assurances that adequate regulatory protection will be in place so that the incumbent operators will not be permitted to engage in anticompetitive behavior or abuse their dominant position.

7.1.5 Tariff Regulation

Regulators must establish effective and transparent tariffing regimes to contribute to the orderly evolution to competition in the telecommunications sector. As markets become more competitive, tariff regulation becomes a less important regulatory function. When tariffs are established by the regulator, however, they should be set formally through the issuance of rules and other regulatory instruments.

7.1.6 Interconnection

Given its fundamental impact on the overall operation of competing telecommunications networks, interconnection is often the most contentious regulatory issue confronting the sector. Regulators play a critical role in overseeing interconnection. In most cases, they must review relevant economic principles regarding pricing; analyze and propose interconnection costing approaches; develop common cost models to be utilized by all operators; and develop guidelines and regulations.

7.1.7 Quality of Service – Regulatory Roles and Responsibilities

The regulator has two fundamental objectives when establishing quality of service (QoS) targets and reporting. It must ensure that the general public (*i.e.*, the consumer) is adequately served, but also should make certain that the operator is not impeded from carrying out day-to-day operating routines as a result of excessive reporting requirements.

The level of regulatory intervention with respect to QoS is often dependent on the degree of competitiveness present in the market. Generally, the regulator takes a more hands-off approach with respect to QoS monitoring and reporting requirements if a market is highly competitive. Nonetheless, the reporting and the report analysis process should not be too onerous for either the operator or the regulator irrespective of market conditions.

7.1.8 Consumer Protection

In the ICT sector, the development of consumer protection regulations is necessary and should be directed at establishing operators' obligations regarding their customers. Operators' obligations should include, but are not limited to, items such as: timely and accurate billing; customer contract policies and procedures; protection of consumer privacy; terms of reference for suspension of service; and procedures necessary to respond to and resolve users' claims.

7.1.9 Establishment and Management of Universal Service/Access Funds

A primary goal of any telecommunications regulator is to ensure that telecommunications services are accessible to the widest number of users at the lowest cost. A common mechanism used to help achieve this goal is the creation of universal service/access development funds. These funds are being used increasingly in competitive markets to supplement market-based policies and address access gaps and market failures in remote and under-served locations.

Countries have taken different approaches regarding the establishment of the universal access funds. Whether those funds are housed in the regulatory authority, the sector ministry or in an independent body operating at arms length from the regulator, the necessary procedures and organizational structure must be put in place to ensure adequate management and administration of the funds.

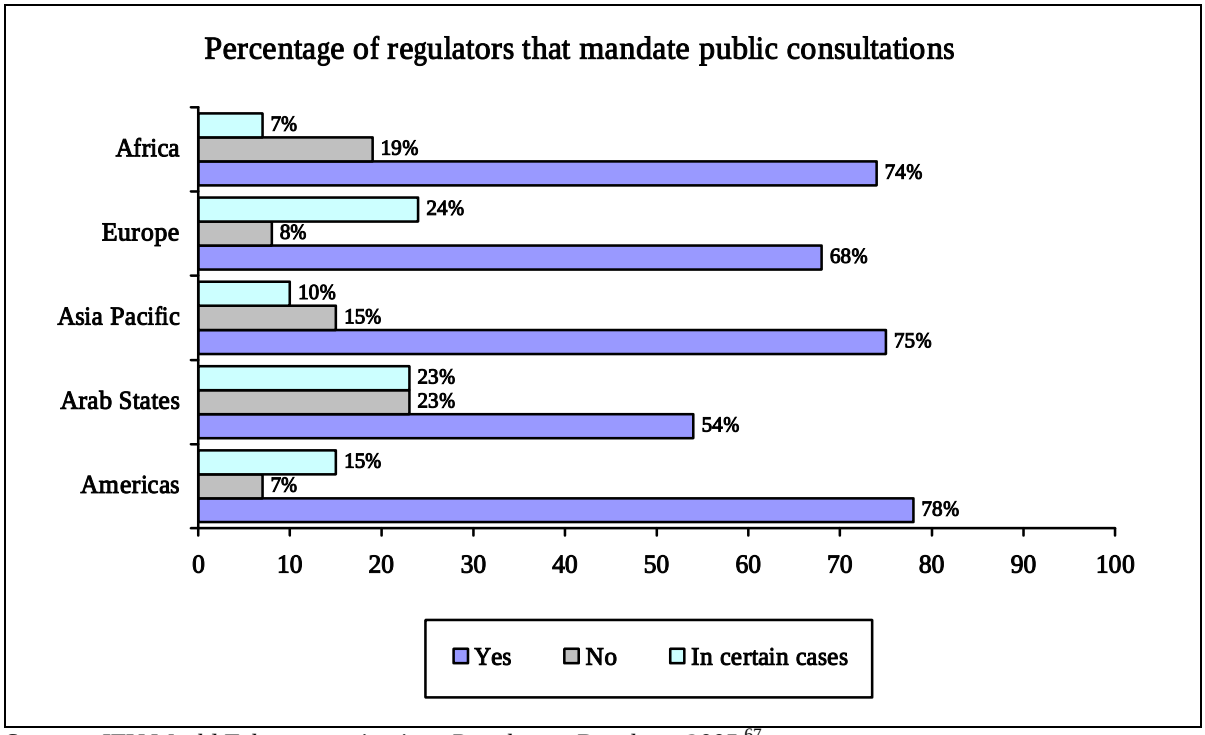
Beyond universal service funds, regulators the world over recognize they can use regulatory reform as the first step in achieving universal access. This includes developing policies, regulations, and practices that create incentives for the private sector to extend universal access to ICTs, as well as enacting enabling licensing and interconnection frameworks.[63]

7.2 Decision-making Process and Consultation Framework

The principles of good regulatory decision-making are universal: (i) transparency; (ii) objectivity; (iii) professionalism; (iv) efficiency; and (v) independence.[64] Although all of these principles are necessary for successful regulation, transparency is particularly critical, as it provides accountability and legitimacy to regulatory decisions. In the context of telecommunications regulation, transparency refers to the openness of the process of exercising regulatory power, which, in turn, ensures the fairness, accountability, and credibility of the results.[65]

A common way to foster openness in the regulatory process is to engage in public consultation before making decisions, thereby ensuring the participation of the general public, industry, and others in the outcome of the decisions. Public consultations are not required in all countries, but most regulators have implemented some form of consultation process to adopt policies, create regulations, or issue licenses (see Figure 9).[66]

Figure 9: Percentage of Regulators Worldwide that Mandate Public Consultation



Source: ITU World Telecommunications Regulatory Database 2005.[67]

Although public consultation procedures can vary from country to country, minimum procedural safeguards generally are instituted to make sure that maximum participation exists in the decision-making process. Such procedural safeguards include: (i) issuing public notice of consultations; (ii) allowing for a proper comment and reply period; and (iii) publishing the consultation results and final decisions.

7.2.1 Overview of the Public Consultation Process

Public consultations can take different forms, depending on the nature of the issue being consulted; the number of people that could be affected by the decision; the impact on the market; and whether a formal written consultation process is mandated by legislation. Public consultations can range from informal meetings to more formalized and structured written consultations.

Many regulators find the written consultation process to be the most efficient means of conducting a public consultation. In the United Kingdom, the Office of Communications (Ofcom), will usually engage in a formal consultation process to seek written views of the public. However, recognizing that formal consultation has its limits in reaching smaller businesses or community groups or individuals who lack time and specialist skills, Ofcom supplements the formal written consultation with other methods of gathering information, such as running road shows, open meetings, online bulletin boards, or organizing focused discussion groups.[68]

Box 3: Objectives of a Public Consultation

1. To obtain input, information, and feedback from persons affected by the proposed decision, other stakeholders, and the public so as to ensure that consumers have the best telecommunication services possible in terms of choice, quality, and value for their money.

2. To acquire substantive information and knowledge from stakeholders, regulatory and industry professionals, and other regulatory institutions so as to effect an orderly transition to a fully liberalized and competitive marketplace.

3. To ensure that the Commission has investigated all aspects of an issue.

4. To ensure transparency of decisions of the Commission.

Source: Anguilla, Administrative Procedures Regulation, 2004.

The general public consultation process is typically based on a three-stage process, which can incorporate both informal and formal procedures depending on the nature of the proceeding.[69] In the first stage, an issue is identified and the regulator issues a formal consultation document soliciting public comment. This is followed by a comment period in the second stage. In addition to the receipt of written comments, the regulator may use the comment period to engage in informal consultations as well, such as public hearings, to gather additional information or clarify information that it receives. In the last stage, the regulator makes a decision based on public policy and the information received.

7.2.2 Media Relations

Managing media relations is an important aspect of being a transparent regulator and ensuring that the public is informed about the regulator's activities. Although ICT development has made Internet the prevalent means by which regulators interact with the public, the Internet may not be easily accessible in some developing countries. Therefore, regulators still need to rely on broadcasting and print media, such as newspapers, television, and radio to ensure that the public has access to important information. Other means of disseminating information include holding press conferences, issuing press releases, industry briefings, holding seminars and workshops or submitting articles and advertisements directly to trade magazines and newspapers.

In Brazil, the regulator Anatel has instituted various mechanisms to foster public outreach in addition to the publication of its decisions in the Official Gazette and postings on its website. Anatel has created "citizen rooms" throughout the country, which are public spaces that provide a means for the public to interact with Anatel and for Anatel to provide information relating to its activities to the general public.[70] In addition, Anatel conducts institutional campaigns periodically to inform the general public in specific cases when the society as a whole needs to be made aware of matters of interest to the broader community.

7.3 Accountability of Regulators and Consumer Protection

7.3.1 Accountability of Regulators

Accountability provides legitimacy and credibility to regulatory activities, promotes public confidence in the regulator, and ensures that regulatory decisions can withstand challenges and public and governmental scrutiny.

The accountability of regulators can be monitored by implementing regulatory transparency and reporting regulatory activities to the government. Additionally, the regulator is also accountable to the public, whose interests are affected by the regulator's activities. Adequate mechanisms should be implemented to educate and protect consumers, and allow consumers to voice their opinions and concerns with the regulator.

Although the accountability of regulators is determined by various factors, it is affected by the organizational structure of the regulator and its place within the governmental structure. Accountability can be facilitated if regulators adopt internal procedures to guarantee transparency in their activities and staff accountability, and by reporting to oversight bodies such as the legislature or other executive branch entities such as ministries. According to a recent ITU survey of 138 countries, 126 have reporting requirements to the sector ministry and/or the legislature.[71] Only four countries – Brazil, Bahrain, Ecuador and Pakistan – have no reporting requirements.[72]

Another mechanism to ensure the accountability of regulators is to allow for appeals of regulatory decisions to a higher level in the regulatory and institutional framework. Typically, regulatory decisions may be appealed to the regulatory authority itself as an initial step.[73] After reconsideration by the regulator, the decision usually may be appealed to a higher authority, such as the sector ministry, or to a court. In the Philippines, for example, appeals of the National Telecommunications Commission Board's decisions, rulings, orders, and resolutions can be filed with the Supreme Court.[74]

The right balance must be struck, however, to avoid undermining the effectiveness of the regulator by appeals processes closely linked to the executive branch that put on hold or "stay" regulator decisions during the appeals process, and to prevent the appeals process from being easily manipulated for the benefit of particular stakeholders. Clear and transparent appeal procedures enhance the independent regulator's credibility and give operators and other stakeholders, including consumers, a sense of stability in the regulatory process.

7.3.2 Accountability for Consumers

Regulatory accountability also involves regulators having appropriate procedures to channel consumer inquiries or claims, to educate consumers regarding their rights, and to protect consumers in case of market failures. In a majority of countries, regulators assume responsibility for handling consumer complaints.[75] In other countries, such as Australia, Hong Kong (SAR) and Malaysia, regulators place significant emphasis on industry self-regulation and on codes developed by industry and approved by the

regulator. The particular mechanisms developed and instituted for consumer protection in each country may differ and require tailoring to the needs of the country depending on its particular legal and institutional systems and culture.

Other regulators also have established consumer advisory committees and forums to provide the regulator with advice on consumer concerns, promote consumer input into policies and regulations, and ensure consumers' interests are taken into account during the regulator's decision-making process. In Australia, for example, the regulator is required by legislation to establish a consumer forum.[76]

7.4 Dispute Resolution and Enforcement

7.4.1 Dispute Resolution

As the telecommunications sector continues to undergo changes prompted by privatization, liberalization, and convergence, it becomes increasingly important for countries and regulators to have an effective and efficient dispute resolution system. Failure to resolve disputes quickly can limit competition, cause delays in the introduction of new services and infrastructures, block or reduce investment in the sector, and impede liberalization and development of the sector.[77]

Main Types of Disputes in the Telecommunications Sector

Disputes in the telecommunications sector generally arise out of various circumstances. However, disputes with the greatest impact on telecommunications investment and growth typically relate to: (i) interconnection; (ii) relations between service providers and with consumers; (iii) liberalization; (iv) foreign investment and trade; and (v) radio frequency use.

Interconnection disputes are the most prevalent types of disputes between service providers, as operators of all different types of access networks (*e.g.,* fixed-mobile and wire line-wireless) must be able to interconnect with each other. Many aspects of the interconnection relationship involve key policy considerations for the telecommunications sector; therefore, most regulators consider it important to maintain some form of regulatory oversight of the negotiation and implementation of interconnection arrangements.

Disputes between service providers and consumers are also common and occur in every jurisdiction. These conflicts principally stem from the consumer's lack of bargaining power or the absence of competitive options to the incumbent operator.

In addition, disputes also may arise as a consequence of the liberalization process which often undermines the established financial and business interests of incumbent network operators. These liberalization-related disputes generally derive from the incumbent's desire to protect and maintain its dominant position in the market. Similarly, investment and trade disputes often occur where regulatory reforms or actions diminish the value of private-sector interests. These types of disputes have the potential to *internationalize*

disputes arising between regulators and foreign investors in the telecommunications sector. Current trends indicate a recent rise in international investment disputes within the telecommunications sector, based primarily on provisions of bilateral investment treaties.

Finally, radio frequency allocation and assignment disputes are dealt with internationally through mechanisms available through the ITU, particularly the Radiocommunications Bureau (ITU-R). Domestically, disputes may arise from interference, license conditions, and pricing.

Dispute-Resolution Mechanisms

Dispute resolution can be addressed from two separate approaches, namely through official and non-official mechanisms. Governmental authorities, statutory bodies and courts commonly discharge official functions in dispute resolution, their authority deriving principally from the constitutional, legislative and regulatory framework applicable to the telecommunications sector. Non-official dispute resolution – or alternative dispute resolution (ADR) – consists of mechanisms where the individuals associated with these processes do not discharge any executive or judicial duties.

A well-resourced "official" sector, utilizing regulatory adjudication and the courts, is crucial to a successful dispute-resolution environment. Alternative approaches, however, are often useful to deal with the lack of available regulatory or judicial resources, or where less formal techniques offer particular advantages.[78] Therefore, it is important to identify those circumstances in which the use of each mechanism is more appropriate. In light of the rapid changes in the ICT sector, countries such as Saudi Arabia have instituted highly flexible approaches to determine which mechanisms (*i.e.*, mediation, arbitration, or regulatory adjudication) to adopt for resolving specific disputes.[79]

Regulatory adjudication refers to the legal powers exercised by regulators pursuant to the resolution of the disputes brought before them. Currently, regulatory adjudication is recognized as the cornerstone of dispute resolution in the telecommunications sector. Regulators of countries such as Canada, the United Kingdom, and the United States have traditionally been granted powers to adjudicate disputes. Many countries with newer regulatory authorities such as Morocco, however, also have granted broad dispute resolution powers to their regulators.

ADR, on the other hand, encompasses different processes and procedures directed at settling disputes by means other than litigation and administrative adjudication. ADR is based on the general premise that, where possible, it is more beneficial for private parties to settle disputes by private process and negotiated agreement as opposed to contentious litigation or regulatory adjudication. Because of this, in Europe, for instance, the EU Framework Directive explicitly contemplates that national regulatory authorities should encourage the use of ADR mechanisms, such as mediation, where they are available.

ADR procedures fall into three primary categories: (i) negotiation; (ii) mediation and conciliation; and (iii) arbitration.

- Negotiation is the premise upon which all ADR activity is based. It is a consensual process designed to allow parties to arrive at a mutually agreeable solution.
- Mediation, on the other hand, is a consensual process involving a neutral third party whose role is to facilitate resolution of the dispute. Both regulators and private individuals not involved in the regulatory process may act as mediators. In discharging its duties, the mediator must initially solicit the views of the parties on the nature of the dispute and its key issues. The objective here is to seek potential points of agreement between the parties and propose constructive "win-win" solutions. For example, in Japan, mediation is used to resolve interconnection disputes.
- Conciliation is closely related to mediation, but involves more formal procedures. Here, the parties do not meet together, as the conciliator assumes the roll of an intermediary or liaison. The conciliator's primary function is to communicate each disputant's position to the other, relay settlement options, and sometimes offer nonbinding advice in an effort to bring the sides closer to settlement.
- Arbitration is a dispute-resolution method that takes the place of conventional litigation. Through this consensual process, parties agree to submit a dispute to a neutral third party arbitrator or panel of arbitrators for resolution. The commitment to arbitrate may arise at the outset of commercial agreements through arbitration clauses that bind parties to seek arbitration for future disputes or it may derive from legal instruments or international agreements. Arbitration may also be chosen as an alternative to litigation or regulatory adjudication when a dispute arises.

Although arbitration as a dispute-resolution tool is generally agreed upon by the parties involved in a specific contractual relation, in certain instances arbitration is compulsory or encouraged either by regulatory policy or legislation. For example, in certain countries, internal regulation requires interconnection disputes to be resolved through arbitration. Such is the case in Brazil, where disputes pertaining to the application and interpretation of the regulations during interconnection contract negotiations must be resolved by Anatel through arbitration. This procedure is conducted by an Arbitration Council composed of three members appointed by the president of Anatel. In other countries, such as Jordan, the regulatory framework adopts a more flexible approach and allows disputants to select the type of dispute resolution method, be it regulatory adjudication or arbitration.

Investment Disputes

Investment disputes tend to arise when the process of regulatory reform negatively affects the value of foreign investors' stakes in the sector. Among the examples of such regulatory changes are: (i) the termination of an incumbent operator's monopoly; (ii) rate rebalancing; (iii) mandatory interconnection; (iv) the introduction of a new rate-setting structure; and (v) changes in the terms and conditions of concessions or licenses.[80] There are two specific types of dispute-resolution regimes directly related to foreign investment

in the telecommunications sector: (i) international investment disputes; and (ii) international trade disputes.

International investment disputes are disputes arising between states and nationals of different states and derive from either the provisions in contracts between governments and investors or from the operation of local investment laws and bilateral investment treaties. In past years, there has been increased use of this dispute-resolution mechanism in various sectors, including the telecommunications sector.

On the other hand, international trade law also is applicable, under certain situations, to disputes within a country's telecommunications sector. The WTO's GATS is the principal multilateral trade agreement affecting the provision of telecommunications services. An international trade dispute arises when one country adopts a trade policy measure or takes some action (*e.g.,* interconnection rate regulation) that one or more WTO members consider to be in breach of WTO obligations or commitments. In such cases, WTO members have agreed to use the multilateral system of dispute settlement, rather than take unilateral action.

Under WTO rules, individual service providers lack "standing" to seek remedies through the GATS dispute resolution procedures. As such, WTO provides that the government of the service provider's country of origin initially undertakes bilateral consultations with another country's government to resolve the problem, before resorting to the dispute-settlement mechanism. To date, only one telecommunications case – the U.S.-Mexico case – has been before a WTO Dispute Settlement Body (DSB) for resolution.

7.4.2 Enforcement

One of the main attributes of effective regulation is the power to enforce compliance with sector policy, laws, and regulatory decisions, including dispute resolution decisions. Today, very few regulators lack certain enforcement powers. The differences in market and regulatory maturity, as well as legal and judicial practices, affect the enforcement practices and procedures of individual countries. However, it is generally agreed that an effective enforcement system is essential in any economy to give effect to those rules necessary for maintaining order in the sector; maintaining and facilitating stability, growth, and development of the sector; deterring wrongdoing; protecting consumers; and maximizing social and corporate welfare.[81]

Enforcement Practices and Procedures

Clear and published enforcement procedures are needed to ensure transparency and accountability (for example, that sanctions are issued after adequate investigation, and that the accused party is provided with proper notice of the alleged violation and an opportunity for defense). Transparency also facilitates and encourages voluntary compliance with rules and regulations, minimizing the need for intervention by the regulator, and reducing regulatory costs for the government and industry players.[82]

Organization and Resources

To fully exercise their enforcement powers, regulators must have the necessary organizational infrastructure and resources to support their activities. Enforcement activities require the regulator to have: (i) a sufficient number of skilled staff responsible for monitoring compliance and conducting investigations; (ii) adequate technical capacity such as spectrum management and radio monitoring systems; and (iii) the necessary funds. Regulators often devote a significant amount of their financial resources to support enforcement activities. For example, in Brazil, Anatel spends almost half of its financial and human resources on monitoring and enforcement activities.[83] In the United States, approximately 20 percent of the FCC's staff works on enforcement issues.[84] In Lithuania, in 2003, approximately 56 out of the 135 employees at the Communications Regulatory Authority (CRA) staff were involved in enforcement work.[85]

Enforcement Procedure

The enforcement procedure generally provides for a certain degree of due process before sanctions are issued. The regulator usually provides notice of the alleged violation after it receives a complaint or before it undertakes an investigation on its own motion and allows an adequate time period for a party to provide a response or defense. Generally, the notice of alleged violation notifies the parties that a complaint has been filed, specifies the provisions of legislation that have allegedly been breached, and provides details of the regulator's intended actions. Typically, respondents are given an opportunity to file a response to the allegations in the complaint, and regulators consider the response before making a final determination on sanctions. For example, the Malaysian Communications and Multimedia Commission (MCMC) will not make a finding adverse to a complainant or respondent in an investigation unless the parties are given a minimum of 30 days to make submissions in their defense. [86]

Similarly, regulators should have a variety of sanctioning tools to enforce compliance and ensure that the severity of the sanction matches the severity of the violation. When determining the appropriate sanction to impose, regulators should consider aggravating and mitigating factors. These may include the severity of the violation; the resulting harm to users and service provision; the benefits that the offender derived from the violation; prior violations; repetition of violations; early admission of the violation; cooperation or refusal to cooperate with the investigation; and the economic and financial situation of the offender. Almost all regulators impose monetary sanctions, or fines. Most regulators have a specific schedule of fines, while other regulators in Peru, Poland, Portugal, and Turkey levy fines based on a percentage of the offending party's revenues.[87]

To ensure that an enforcement system is fair, parties affected by a dispute resolution or enforcement decision should be able to seek an appeal of the initial decision to a higher level, even after the sanction has been issued. Appeals can be filed within the regulatory body to the next level in the hierarchy, or to outside bodies such as courts or an appropriate ministry. In Singapore, parties appealing an a regulatory decision have 14 days to request the regulator, IDA, to reconsider its decision or direction, or appeal to the Minister within 14 days of the IDA's decision on reconsideration.[88] The appeal

procedure, however, should not be so extensive as to diminish the effectiveness of the enforcement decision. To this effect, many countries prohibit the parties from raising new arguments during an appeal process. New Zealand, for example, limits appeals of the regulator's decisions to questions of law.[89]

Industry Self-regulation

As a complement to an enforcement regime, some regulators are encouraging industry self-regulation by requiring the use of ADR to resolve disputes as discussed above. Some regulators, particularly in more liberalized and competitive economies, are also engaging in more light-handed regulation and encouraging voluntary compliance with industry codes and standards to minimize the need for regulatory intervention.[90]

For example, in Malaysia, the MCMC is expressly required to promote and encourage industry self-regulation. [91] Such voluntary compliance frameworks are not substitutes for regulatory enforcement, as the regulator still may be required to intervene and enforce compliance where parties fail to comply with voluntary rules and where the interests of consumers and competition in the sector are adversely affected.[92]

Enforcement of Dispute-Resolution Decisions

All dispute-resolution processes require some level of enforcement support from the official sector, whether from the regulator or from the courts.[93] Consensual processes such as mediation and negotiation rely upon courts to enforce settlement agreements.

Decisions resulting from regulatory adjudication rely upon the enforcement power of the regulator, and sometimes the courts as well, depending on how enforcement powers have been allocated, and which entity has the ultimate authority to overturn the regulator's decision. Many countries' telecommunications laws give regulators authority to enforce regulatory decisions resolving disputes.

The online version of the Legal and Institutional Aspects of Regulation module includes numerous examples of national experiences with respect to public consultations, dispute resolution and enforcement.

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[1] OECD, Regulatory Reform as a Tool for Bridging the Digital Divide, Fig. 13, at 19.

[2] OECD, Communications Outlook 2005, at 311.

[3] Telecom Regulatory Authority of India, The Indian Telecom Services Performance Indicators April-June 2006, October 2006, at Annex 2.4. Available at: http://www.trai.gov.in/trai/upload/Reports/29/ReportQEJune06final.pdf.

[4] Boutheina Guermazi and David Satola, *Creating the "Right" Enabling Environment for ICT*, Chapter 2 in e-Development: From Excitement to Efficiency, The World Bank (2005), at 6.

[5] International Encyclopedia of Comparative Law, Vol. II, The Legal Systems of the World Their Comparison and Unification, Chapter 2, Structure and Divisions of the Law, René David, Chief Ed. , p. 2-2 [hereinafter Comparative Law Encyclopedia].

[6] Introduction to Comparative Legal Cultures: The Civil Law and the Common Law on Evidence and Judgment (oral presentation of the book by Antoine Garapon & Ioannis Papadopoulos, Jugar en Amerique et en France : Culture judiciaire française et common law, Ioannis Papadopoulos Université Paris 1 Pantheon-Sorbonne, Cornell Law School Working Paper Series), (2004), Paper 15.

[7] Telecommunications Law of Bulgaria, Prom. SG. 88/7 Oct 2003, amend. SG. 19/1 Mar 2005, *available at* http://www.crc.bg/v1/eng/index.htm.

[8] Loi N° 2000-03 du 05 joumada el oula 1421 correspondant au 05 août 2000: fixant les règles générales relatives à la Poste et aux Télécommunications, *available at* http://www.arpt.dz/lois.htm.

[9] For a complete list of member states' commitments and exemptions, please refer to "Telecommunications Commitments and Exemptions" at http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_commit_exempt_list_e.htm.

[10] GATS Fourth Protocol, the Reference Paper is available at http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm.

[11] This project is a joint European Union-ITU project aimed at assisting ECOWAS countries in harmonizing legislation in the sector, and consists of assistance in harmonization of legislation and policy and of capacity building assistance to ECOWAS countries. *See* http://www.itu.int/ITU-D/treg/Events/Seminars/ITU-EC-Project/Ghana/Ghana.html for the full text of the guidelines.

[12] http://www.trasa.org.bw/.

[13] Hodge, James, University of Cape Town, WTO *Telecommunications Negotiations: How Should SADC Countries Respond*, SATRN, January 2003.

[14] *See* A Commentary on Regional Institutions in the Pacific Rim: Do Apec and ASEAN Still Matter? 13 Duke J. Comp. & Int'l L. 337, *372 -373.

[15] International Telecommunication Union, *Competition Policy in Telecommunications: The Case of Denmark*, November 2002, at Box 4.3 (citing ITU source).

[16] *See* Viviane Reding, Member of the EC responsible for Information Society and Media, *The Review of the Regulatory Framework for e-Communications*, SPEECH/05/515, 1st Meeting of the Centre for European Policy Studies Taskforce on Electronic Communications, Brussels, 15 September 2005, at 3, stating that: "*one of the main goals of the framework is to re-focus regulation, and to withdraw regulation as competition becomes effective.*"

[17] Commission of the European Communities, *Commission Recommendation of 11/02/2003 on the Relevant Product and Service Markets within the Electronic Communications Sector Susceptible to ex ante Regulation in Accordance with Directive 2002/21/EC of the European Parliament and of the Council on Common Regulatory Framework for Electronic Communications Networks and Services*, C(2003)497 [hereinafter *EC Recommendation on Relevant Markets*], *available at*: http://europa.eu.int/information_society/topics/telecoms/regulatory/maindocs/documents/recomen.pdf.

[18] *Directive 2002/21/EC* at Annex.

[19] *See* Communications Act of 1934 § 2(a), 47 U.S.C § 152(a) (2000); and Clayton Act § 11(a), 15 U.S.C. § 21(2000).

[20] *See* 1992 Horizontal Merger Guidelines, U.S. Department of Justice and Federal Trade Commission (revised April 8, 1997), *available at* http://www.ftc.gov/bc/docs/horizmer.htm.

[21] *See* Comments of FCC General Counsel Christopher J. Wright, *Introducing the Transactions Team Presentation on Timely Consideration of the Applications Accompanying Mergers*, 1 March 2000 (where the General Counsel lists the following four-pronged public interest standard used in considering merger: (i) whether the transfer would violate the statute; (ii) whether the transfer would violate regulation; (iii) whether the transfer would frustrate the purpose of the Communications Act or a regulation; and (iv) whether the transfer is likely to provide affirmative public benefits), at http://www.fcc.gov/Speeches/misc/statements/wright030100.html.

[22] Ley General de Telecomunicaciones No. 153-98 [General Telecommunications Law No. 153-98] Official Gazette No. 9983, Year CXLVI (Dominican Republic), 28 May 1998.

[23] *Id*. at Article 78.

[24] A recent study has shown that developing countries with high mobile taxes have fewer mobile telephones per person than countries with low taxes. *See Tax and the Digital Divide: How new approaches to mobile taxation can connect the unconnected*, GSM Association Mobile Tax Report, 2005, [hereinafter *Tax and the Digital Divide*] *available at* http://www.gsmworld.com/TAX/.

[25] The Communications Commission of Kenya announced in 2004 its intention to adopt gradually a technology-neutral and unified licensing framework. *See* public consultation on intention to merge license published on 21 September 2005 at www.cck.go.ke.

[26] Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive), Article 25, 7 March 2002, and Malaysia, Communications and Multimedia Act 1998 (CMA), Section 122, *available at* http://www.mcmc.gov.my/mcmc/the_law/ViewAct.asp?cc=4446055&lg=e&arid=900722.

[27] *See* http://www.acif.org.au.

[28] *See* http://www.acif.org.au/projects/seminars/voip.

[29] *See* Policy and Regulatory Considerations for New and Emerging Services, at http://www.acif.org.au/__data/page/275/Policy_&_Regulatory_report_final.pdf.

[30] Malaysia Communications and Multimedia Act 1998, Act 588, *available at* http://www.mcmc.gov.my/mcmc/the_law/ViewAct.asp?cc=4446055&lg=e&arid=900722.

[31] For further information *see* http://www.cck.go.ke.

[32] 47 U.S.C. § 230 (b).

[33] *See* Framework Directive, Art. 9.

[34] Ofcom, Statement on Spectrum Trading (2004), at http://www.ofcom.org.uk/consult/condocs/spec_trad/statement/sts.pdf.

[35] According to the ITU webpage: "International Mobile Telecommunications-2000 (IMT-2000) is the global standard for third generation (3G) wireless communications, defined by a set of interdependent ITU Recommendations. IMT-2000 provides a framework for worldwide wireless access by linking the diverse systems of terrestrial and/or satellite based networks." For further information, *see* http://www.itu.int/home/imt.html.

[36] Directive 2002/19/EC of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (EU Access Directive), *available at* http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_108/l_10820020424en00070020.pdf.

[37] "In the case of shared access, the incumbent continues to provide telephony service, while the new entrant delivers high-speed data services over that same local loop." *See* European Electronic Communications Regulation and Markets 2004 (10th Report), dated 2 December 2004.

[38]As defined by the European Electronic Communications Regulation and Markets 2004 (10th Report), dated 2 December 2004: "Bitstream access is a wholesale product that consists of the provision of transmission capacity in such a way as to allow new entrants to offer their own, value-added services to their clients."

[39] For further details, see ITU-T Resolution 49, *available at* http://www.internet.org.za/telecoms_act.html#Under-serviced_area_license.

[40] *See* http://www.itu.int/osg/spu/presentations/2004/enum-country-experiences-ftra-uganda-rs.pdf. For an example of an ENUM trial, *see also* http://www.enum.org/.

[41] The Reference Paper to the WTO Agreement on Basic Telecommunications services notes specifically that there should be a regulatory body established that "is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and procedures used by regulators shall be impartial with respect to all market participants." *See* http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm.

[42] Thomas E. Leavey, *Benchmarking Postal Regulator Effectiveness*, Universal Postal Union, January 30, 2004, at 4.

[43] Michel Kerf and Damien Geradin, *Controlling Market Power in Telecommunications: Antitrust vs. Sector-Specific Regulation: An Assessment of the United States, New Zealand and Australian Experiences*, Berkeley Technology Law Journal, Issue 14:3 (Fall 1999).

[44] Hon. Paul Swain, Minister of Communications, *Government announces 'world-leading' telecommunications reform*, Media Release, 20 December 2000, *available at* http://www.med.govt.nz/pbt/telecom/response/index.html.

[45] International Telecommunication Union, *Trends in Telecommunications Reform 2002: Effective Regulation*, Chapter 7, at 117-118 (2002).

[46] ITU World Telecommunication Regulatory Database 2005.

[47] *Id.* The data includes the most recent responses for countries which did not respond in 2005.

[48] The Telecom Regulatory Authority of India Act, 1997 (No. 24 of 1997), Chap. II, Section 4(b), as amended in 2000.

[49] Nigerian Communications Act, 2003, Part 2, Section 8.

[50] U.S. Federal Communications Commission, *About the FCC: A Consumer Guide to Our Organization, Functions and Procedures*, at 2, *available at* http://www.fcc.gov/aboutus.html.

[51] Sudan National Telecommunications Council Act 1994, as amended, Chap. III (13).

[52] Bulgaria, Telecommunications Law 2003, Article 23.

[53] Bahrain, Legislative Decree No. 48 of 2002 Promulgating the Telecommunications Law, Chap. 4, Sec. 14.

[54] *See* http://www.acma.gov.au/ACMAINTER.10289722:STANDARD:1475878828:pc=PC_1514.

[55] Legislative Decree No. 48 of 2002 Promulgating the Telecommunications Law, Chap. 2, Sec. 3 (d) (2).

[56] *See* http://www.ofta.gov.hk/en/ad-comm/main.html.

[57] FCC Advisory Committees are listed on the FCC's website at http://www.fcc.gov.

[58] United Kingdom, Civil Service Management Code, *available at* http://www.civilservice.gov.uk/management_information/management/management_code/index.asp.

[59] Canada, Conflict of Interest and Post-employment Code for Public Office Holders, 2004, *available at* http://www.parl.gc.ca/oec-bce/site/content/coi_2004_e.pdf.

[60] Hong Kong (SAR) Civil Service Bureau, *Civil Servants' Guide to Good Practices*, Section 6, (2005).

[61]Canada, Conflict of Interest and Post-employment Code for Public Office Holders, 2004, Part II, Article 10(1). Exempt assets are assets and interests for the private use of the public office holders and their families that are not of a commercial character and are not subject to public declaration or divestment, and include, among others: (i) residences or other property used or intended for use by public office holders and their families; (ii) household goods and personal effects; (iii) pension rights, life insurance policies and annuities; and (iv) automobiles and other personal means of transportation.

[62] *Id*., Articles 11-13. Controlled assets include: (i) publicly traded securities of corporations and foreign governments, whether held individually or in an investment portfolio account such as, but not limited to, stocks, bonds, stock market indices, trust units, closed end mutual funds, commercial papers and medium-term notes; (ii) self-administered Registered Retirement Savings Plans, self-administered Registered Education Savings Plans and Registered Retirement Income Funds, except when exclusively composed of assets as described in section 10 (exempt assets); (iii) commodities, futures and foreign currencies held or traded for speculative purposes; and (iv) stock options, warrants, rights and similar instruments.

[63] 2003 ITU Global Symposium for Regulators Universal Access Best Practice Regulatory Guidelines, http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR03/Documents/bestpractices_31.pdf.

[64] *Telecommunications Regulation Handbook*, *Info*Dev, Module I, Section 1.3 (2000).

[65] International Telecommunication Union, *Trends in Telecommunication Reform 2002: Effective Regulation*, Chapter 6, (2002).

[66] *Id*., at Section 6.1. "It is worth noting that many regulatory authorities are not bound by explicit statutory requirements to follow transparent procedures. Even so, many agencies are engaging in public consultation voluntarily."

[67] ITU telecommunications regulatory survey on Public Participation. In the Americas, out of the 31 countries surveyed, 27 countries responded, resulting in a response rate of 87 per cent. In the Arab States, 13 responses were received out of 19 countries surveyed, resulting in a response rate of 68.4 per cent. 28 countries were surveyed in the Asia Pacific region, and 20 countries responded, resulting in a response rate of 71.4 per cent. In Europe, 45 countries were surveyed, and 38 responded, resulting in a response rate of 84.4 per cent. In Africa, 41 countries were surveyed, but only 27 countries responded, resulting in a response rate of 65.8 per cent.

[68] Ofcom, *How will Ofcom Consult? A guide to our consultation process*, available on Ofcom's website *at* http://www.Ofcom.org.uk/consult/consult_method/OFCOM_consult_guide.

[69] Irene Wu and Cathleen Xue, *Decision-making procedures ethics rules: The practical enablers of integrity and impartiality in telecommunications regulation*, Part II, 15 August 2002.

[70] ITU Effective Regulation Case Study: Brazil (2001), *available at* http://www.itu.int/osg/spu/casestudies/.

[71] ITU World Telecommunication Regulatory Database 2005.

[72] *Id.*

[73] According to the 2005 ITU World Telecommunication Regulatory Database, of the 71 responding countries, 70 responded that appeals were allowed to the regulatory authority (94 countries did not respond to the question).

[74] *See* Part VII of the NTC Practices and Procedures Manual, *available at* http://www.ntc.gov.ph/manual/manual_toc_and_preface.pdf.

[75] ITU World Telecommunication Regulatory Database 2005. 120 out of 124 countries surveyed (83%) state that the regulatory authority is responsible for handling consumer complaints.

[76] The Consumer Consultative Forum was established under the Australian Communications Authority Act of 1997 and continues in existence under the Australian Communications and Multimedia Act 2005. *See* Australian Communications and Multimedia Act 2006, Sec. 59.

[77] Robert R. Bruce, Rory Macmillan, Timothy St. J. Ellam, Hank Intven and Theresa Miedema, *Dispute Resolution in the Telecommunications Sector: Current Practices and Future Directions*, World Bank/International Telecommunication Union, October 2004, at v. [hereinafter WB/ITU, *Dispute Resolution in the Telecommunications Sector*].

[78] WB/ITU, *Dispute Resolution in the Telecommunications Sector*, at viii.

[79] *Id*. at 49. In deciding whether to accept a request for consensual resolution or to proceed by way of a rulemaking proceeding, the Saudi regulator must take into account: (i) whether the dispute will have regulatory or precedent-setting value, and whether a consensual proceeding likely will be accepted as an adequately authoritative precedent; (ii) whether the dispute raises policy issues that extend beyond the interests of the parties involved and that may require additional comment from other concerned parties before a final resolution may be made; and (iii) whether the dispute might have a material effect on persons who are not parties (Saudi Telecommunications Bylaw, Article 45.8).

[80] WB/ITU, *Dispute Resolution in the Telecommunications Sector*, at 27.

[81] *Domestic Enforcement of Telecommunications Laws: Guidelines for the International Community – Report on ITU-D Question 18/1*, 22 September 2005, at 4.

[82] *See Effective Compliance and Enforcement Guidelines and Practices*, APEC Telecommunications and Information Working Group, 31st Meeting, Document no. Telwg31/LSG14, April 2005, at 4-5.

[83] International Telecommunication Union, *Trends in Telecommunication Reform 2002: Effective Regulation*, 2002, at 46.

[84] *Domestic Enforcement of Telecommunications Law: Guidelines for the International Community – Report on ITU-D Question 18/1*, International Telecommunication Union, Telecommunication Development Bureau, 22 September 2005, at 43.

[85] Contribution from Lithuania to ITU-D Question 18/1, 10 March 2003 at 2.

[86] Malaysia Communications and Multimedia Commission Act of 1998, Acts 588 and 589.

[87] *Domestic Enforcement of Telecommunications Law: Guidelines for the International Community – Report on ITU-D Question 18/1*, International Telecommunication Union, Telecommunication Development Bureau, 22 September 2005, at 36.

[88] Singapore, Code of Practice for Competition in the Provision of Telecommunication Services 2005, Section 11.9.

[89] New Zealand, Telecommunications Act 2001, Law No. 130, Article 60, 19 December, 2001.

[90] *Domestic Enforcement of Telecommunications Law: Guidelines for the International Community – Report on ITU-D Question 18/1*, International Telecommunication Union, Telecommunication Development Bureau, 22 September 2005, at 17-18.

[91] Malaysian Communications and Multimedia Commission Act 1998, Act 589, Section 16 (g). *See also* Ann Buckingham, Camilla Bustani, David Satola, and Tim Schwarz, *Telecommunications Reform in Developing Countries*, in Telecommunications Law and Regulation (Ian Walden and John Angel, eds., 2005), at 621.

[92] *See Effective Compliance and Enforcement Guidelines and Practices*, APEC Telecommunications and Information Working Group, 31st Meeting, Document No. Telwg31/LSG14, April 2005, at 5.

[93] WB/ITU, *Dispute Resolution in the Telecommunications Sector: Current Practices and Future Directions*, at 77.