

1st Development Symposium for Regulators (Geneva, 2000)

Establishing a regulatory body

Information Documents

Note: The documents of this seminar were numbered sequentially regardless of type of document. This PDF includes only *information documents*.

For more information about the complete set of documents for the event, consult the "List of Documents" that follows.

This PDF is provided by the International Telecommunication Union (ITU) Library & Archives Service from an officially produced electronic file.

Ce PDF a été élaboré par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'une publication officielle sous forme électronique.

Este documento PDF lo facilita el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un archivo electrónico producido oficialmente.

ىجر ينوركتال فمل نم تذخوماً يهو تاظوفحموال، تمكتبال قسم ، (ITU) تصالالاتا يلوالد ادحتالا نم تممقد PDF قسنب تخسنال هذه باميرسً دادمعا

本PDF版本由国际电信联盟(ITU)图书馆和档案服务室提供。来源为正式出版的电子文件。

Настоящий файл в формате PDF предоставлен библиотечно-архивной службой Международного союза электросвязи (МСЭ) на основе официально созданного электронного файла.

List of Documents - Development Symposium for Regulators (Geneva, 2000)					
SPEECHES					
Language	Document No.	Title	Author / Speaker		
English Français Español	10	Keynote Speech	C. M. Lekaukau, Executive Chairman, Botswana Telecommunications Authority		
English Français Español	12	Welcoming Address	Hamadoun I. Touré, Director BDT, ITU		
English Français Español	13	Opening Remarks	Yoshio Utsumi, Secretary-General, ITU		
English	44	Closing Remarks	Roberto Blois, Deputy Secretary-General, ITU		
PRESENTA					
Language English	Document No.	Title	Author / Speaker		
Français Español	5	Challenges Facing National Regulators in the Transition Period	Gabor Frischmann, President of the Hungarian Communications Authority (HIF)		
Français Español	6	The Experience of the Telecommunications Regulators' Association of Southern Africa (TRASA) in Regional Cooperation	Evance J. Namanja, Chairperson of TRASA		
English Français Español	7	Telecom Regulatory Bodies: Cooperation, Credibility and the Telecom Regulator's Forum	M. S. Verma, Telecom Regulatory Authority of India		
English Français Español	11	Creating a New Regulator: Turkish Case	F. M. Yurdal, Telecommunications Authority of Turkey		
English	14	International Interconnection	Tim Kelly, Co-ordinator, Strategies and Policy Unit, ITU		
English	15	Forward Looking Regulation in Emerging Markets	Bob Rowe, President, National Association of Regulatory Utility Commissioners		
English English	17	The Eastern Caribbean Telecommunications Regulatory Authority: ECTEL	D. De Freitas, Project Manager, OECS Project, ECTEL		
English	20	Trends in Telecommunication Reform 2000: Economic Issues in Interconnection	David Townsend, President, DNTA		
English	21	Interconnection: Regulatory & Technical Issues	Hank Intven, McCarthy Tetrault		
English	22	The Impact of the Technological Convergence on the Brazilian Telecommunications Regulator	Luiz Fernando Ferreira Silva, Manager Service Regulation, ANATEL		
English	24	The Regulatory Framework & the Brazilian Telecommunications Market	Luiz Tito Cerasoli, Member of the Board / Eng. V.R. Freitas, ANATEL		
English	25	ATRC: A Regional Forum for Regulators	H. Parman, Director, Malaysian Communications & Multimedia Commission		
English	26	Gender Perspectives in Telecommunications Policy	Sonia Nunes Jorge, Vice President, DNTA		
English	27	Mobile Interconnection	Lara Srivastava, Strategies and Policy Unit, ITU		
English	29	Establishing an Independent Regulatory Authority	S. Bernhardt, Telekom Control, Austria		
English	30	Becoming an Effective Regulatory "Referee"	Fred G. Bigham, Senior Regulatory Consultant, LOBA Limited		
English	31	Where Do We Go From Here?	Hamadoun I. Touré, Director BDT, ITU		
English	32	Global Trends in Market Reform	Ben Petrazzini, Strategies and Policy Unit, ITU		
English	33	Regulatory Entity	Eng. V. R. Freitas, ANATEL Jean-Michel Hubert, Autorité de régulation des		
Français	34	Intervention de M. Jean-Michel HUBERT	télécommunications (France)		
English	33	Regulating a Changing Environment	W Kennard Chairman US Federal Communications		
Français Español	36	ITU-D: The Opportunity Alliance	Commission		
English	37	Independent Regulators Group (IRG)	Nils Gunnar Billinger, Director General PTS, Chairman, IRG		
English	38	Regulation in the Era of Convergence: A South African Perspective	Communications Authority of South Africa (ICASA)		
English	39	The Role of Telecentres in Bridging the Digital Divide	Telecommunications Organisation (CTO)		
English English	40	Internet Interconnection	Anthony Brooks, Reality Engineer, Future Foundation, South Africa		
Français Español	41	Most Pressing Issues Facing Regulators			
English	45	The European Commission's Proposals for a New Regulatory Framework	Alison Birkett, European Commission		
English	40 58	Leading the infocomm Revolution Regulatory Entity	Eng. V. R. Freitas, ANATEI		
INFORMATION DOCUMENTS					
Language	Document No.	Title	Author / Speaker		
English	8	The Dimensions of Establishing an Independent Regulatory Authority	S. Bernhardt, Telekom Control, Austria		
English	9	Regulatory Agency: Korea Communications Commission	C-K. Han, Korea Communications Commission		

English	16	Substance Plus Process - Telecom Regulation Reforms to Protect Consumers,	Bob Rowe, President, National Association of Regulatory
		Preserve Universal Service & Promote Competition	Utility Commissioners
English	18	The Eastern Caribbean Telecommunications Regulatory Authority: ECTEL	D. DeFreitas, Project Manager, OECS Project, ECTEL
English	23	Regulation In the Era of Convergence: A South African Perspective	Mandla Msimang, Advisor to Council, ICASA
English	43	Regulatory Agency	C-K. Han, Korea Communications Commission
English	47	A New Chapter in Regulatory Partnering	Eng. Mahmoud Y. Wreikat, Telecommunications Regulatory
			Commission (TCR), Jordan
English	48	CPP-Interconnect Issue: The Case of Pakistan	Muhammad Akram Khan, Pakistan Telecommunication
			Authority
English	49	The Case of the Czech Republic	Marcela Gürlichova, Deputy Minister, Ministry of Transport &
			Communications, Czech Republic
Fnalich	50	The Impact of Technological Convergence on the Regulatory Structure of	Luiz Fornando Forrairo Silva Dh. D. Anatol Brazil
English		Brazilian Telecommunications	Luiz Fernando Ferreira Silva, Ph.D., Anatei, Brazil
Español	51	Situación del regulatel	REGULATEL
Español	52	Generación de Sinergias como Modelo Regulatorio	Nestor Roa-Buitrago, Comision de Regulacion de
			Telecomunicaciones (CRT), Colombia
English	53	Synergy Creation as a Regulatory Model	Nestor Roa-Buitrago, Comision de Regulacion de
			Telecomunicaciones (CRT), Colombia
English	54	The Dimensions of Establishing an Independent Regulatory Authority	S. Bernhardt, Telekom Control, Austria
English	55	"How to Address Convergence: The European Commission's Proposals for a	Alicon Birkott, European Commission
		New Regulatory Framework"	Alison Birkett, European Commission
English	56	Becoming an Effective Regulatory "Referee"	Fred B. Bigham, Senier Regulatory Consultant, LOBA Limited
			Fred B. Bighani, Senior Regulatory Consultant, LOBA Limited
English	57	Examples of Canadian Regulatory Training Programs	Fred B. Bigham, Senior Regulatory Consultant, LOBA Limited
0			



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 9

Regulatory Agency: Korea Communications Commission

C-K. Han, Korea Communications Commission





제목을 입력하십시오.



























Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Documento No. 16

Substance plus process - Telecom Regulation reforms to protect consumers, preserve universal service & promote competition

Bob Rowe, National Association of Regulatory Utility Commissioners

SUBSTANCE PLUS PROCESS—TELECOM REGULATION REFORMS TO PROTECT CONSUMERS, PRESERVE UNIVERSAL SERVICE, AND PROMOTE COMPETITON

BOB ROWE*

INTRODUCTION

"Affected with a public interest." "The regulatory compact." "Balancing shareholders' and ratepayers' interests." "Regulation as a substitute for competition."¹

These are among the phrases that traditionally described economic regulation of networked industries—telecommunications, electricity, natural gas, and water—at both the federal and the state level. Today, however, rapid technological change and heightened competition are changing telecommunications and other utilities, and state regulatory agencies must change with them. Regulatory agencies and staff members in many states, at the federal level, and through cooperative fed-

^{*} The author is President of the National Association of Regulatory Utility Commissioners ("NARUC"), former Chairman of the NARUC Telecommunications Committee, a member of the Federal-State Joint Board on Universal Service, an *ex officio* member of the Federal State Joint Conference on Advanced Telecommunications Services, Chairman of the Operations Support System ("OSS") Collaborative of the Regional Oversight Committee for US West, and a Commissioner on the Montana Public Service Commission. The views expressed are his own. The author thanks Janet Ellis and the editors of the University of Colorado Law Review.

^{1.} Economist Joseph Schumpeter focused more on pure theoretical than applied economics, and so discussed regulatory issues relatively little. However, he did contravene the currently popular view in writing that "it is . . . a mistake to base the theory of government regulation of industry on the principle that big business should be made to work as the respective industry would work in perfect competition." JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 106 (1942), quoted in Johannes M. Bauer, Market Power, Innovation, and Efficiency in Telecommunications: Schumpeter Reconsidered, 31 J. ECON. ISSUES 557, 561 (1997).

eralist initiatives are striving to transform the classic forms of regulation to keep pace with these changes.

The classic form of economic regulation, as developed in the United States since the Progressive Era, was the multimember commission or tribunal, with professional staff, making decisions on the basis of evidentiary records developed through elaborate, data-rich adjudications, known as "contested cases" under most American systems of administrative law.² A somewhat less significant share of work was done through rulemaking, which was also a stylized function, with formal requirements for each step in the process set forth under state Administrative Procedure Acts ("APAs").³ Almost as an afterthought, regulatory agencies also handled a small number of consumer inquiries and complaints. This function was often considered at best tertiary to the real work of adjudication and rulemaking.

Whether this picture ever fully represented the work of state public utility commissions ("PUCs") is open to debate. Clearly, it reflects a substantial portion of economic regulation at least from the 1930s through the 1960s.⁴ Starting generally in the 1960s, however, several factors combined to work major changes in the traditional picture, including a growing consumer movement; pressure by ordinary citizens for increased

^{2.} See generally BERNARD SCHWARTZ, ADMINISTRATIVE LAW 202–04 (2d ed. 1984) (discussing procedural due process, and the elements of contested case proceedings under either the federal Administrative Procedure Act or similar state statutes). Schwartz distinguishes commissions from executive branch departments not on the basis of the legal issues which attach (delegation, procedure, judicial review), but instead based on organization and structure. See id. at 17–20. Commissions are independent (removed from the hierarchy of government) and specialized, in contrast to the executive agency head who must use "extensive subdelegation" of actual decisionmaking. See id. at 19.

^{3.} See id. at 143–96 (discussing rulemaking); see also id. at 170–83 (analyzing requirements and complications of formal rulemaking); id. at 191–96 (explaining the differences between rulemaking and adjudication).

^{4.} See generally ROBERT KUTTNER, EVERYTHING FOR SALE: THE VIRTUES AND LIMITATIONS OF MARKETS 225–80 (1997) (discussing economic regulation and "regulated competition"). Kuttner describes the first regulatory reform of electric power in the 1930s, which produced significant benefits lasting into the 1970s, when new crises were created by the combination of inflation, the energy crisis, and new technologies. See id. at 270–75. Schwartz traces a similar but broader history of government through agency. See SCHWARTZ, supra note 2, at 20–27. Schwartz notes that "[a]dministrative law and administrative agencies are as old as American governments themselves. The very first session of the First Congress enacted three statutes conferring important administrative powers." SCHWARTZ, supra note 2, at 20 (citation omitted).

participation in and access to government; and increasingly sophisticated forms of economic, legal, and financial analysis. Additionally, technological changes in all industries, specific issues such as claims for recovery of unused electric generation plant capacity, and statutory enactments such as the Public Utility Regulatory Policies Act of 1978 ("PURPA"),⁵ placed significant new burdens on PUCs and other agencies.

In part, PUCs addressed these new demands through further refinement of traditional adjudicatory methods with more process and more data. Adjudications became more elaborate. Testimony was pre-filed in writing. Supporting documentation provided by parties became complex, and was subject to extensive discovery. Hearings were primarily reserved for crossexamination.⁶ Consumer groups became parties,⁷ and were sometimes eligible for compensation for their contributions to a case.⁸

Over time, these incremental changes yielded to a fundamental reappraisal of the missions and methods of economic regulation. One of the earliest, most comprehensive and most thoughtful critiques of the developing regulatory practices in the 1970s and 1980s came from then-professor Stephen Breyer, and was stimulated by his work on airline deregulation for the Senate Commerce Committee.⁹ Breyer summarized and criticized dominant justifications for regulation,¹⁰ including control of monopoly power and "excess profits"; accounting for externalities;¹¹ offsetting information deficiencies; and the "empty

^{5. 16} U.S.C. §§ 2601–2645 (1994).

^{6.} Judge Thomas Penfield Jackson's innovative management of the Microsoft antitrust trial—using pre-filed testimony and other devices—would look quite familiar to anyone who has practiced in front of a state PUC. *See, e.g.*, United States v. Microsoft Corp., 2 Trade Cas. (CCH) ¶ 72,231 (D.D.C. Aug. 11, 1998).

^{7.} See Office of Comm'ns of the United Church of Christ v. FCC, 359 F.2d 994 (D.C. Cir. 1966) (finding groups representing listeners had standing in an FCC license renewal case, despite a lack of economic harm). Then-Judge Burger wrote: "The theory that the Commission can always effectively represent the listener interests... [in this case] is no longer a valid assumption which stands up under the realities of actual experience" *Id.* at 1003–04.

^{8.} See 16 U.S.C. § 2632(a)(1) (granting fees and reasonable costs to consumer intervenors who "substantially contributed" to approval by a state PUC of a position advocated in a PURPA proceeding by that intervenor, and who meet certain other conditions).

^{9.} See generally Stephen Breyer, Regulation and its Reform (1982).

^{10.} See id. at 15-35.

^{11.} Externalities may be either negative—costs which are not recovered in the purchase price, such as pollution—or positive—benefits which are not received

box" theory of excessive competition.¹² He identified, industryby-industry, a series of mismatches, partial mismatches, and possible mismatches between the justification for regulation and the industry being regulated. For each industry, he suggested alternatives to classical regulation.¹³ Breyer concluded by describing "practical reforms," including better personnel for regulatory agencies, procedural changes, structural changes, and several substantive changes.¹⁴ According to Breyer,

[R]egulatory reform must proceed step by step, program by program. An agency . . . is identified as a likely candidate for reform insofar as the framework identifies a less restrictive method of attacking the problem thought to call for regulation. Then the program is investigated in depth, with the existing system judged against that less restrictive alternative.¹⁵

Change consistent with that advocated by Breyer has accelerated in the economic regulation of most industries. Retail rate regulation, while still important for customers who lack choice, is receding in relative importance, and is being replaced by a new focus on supporting the development of markets. Rather than simply balancing the interests of ratepayers against the interests of shareholders in a single service provider, regulatory agencies increasingly balance the interests of shareholders in several competing firms-setting wholesale terms such as pricing, collocation, and affiliate interest standards-for the ultimate benefit (one hopes) of retail customers in a more competitive marketplace. Similarly, the binary code of contested cases and stylized rulemaking is an increasingly inaccurate description of what PUCs do or should do. However, it is premature to jettison all the old methods entirely. We do not yet know the final shape of emerging markets in networked industries. For example, retail customers in many markets do

exclusively by the purchaser, such as ubiquitous telephone connection or environmental benefits of energy efficiency. The existence and measurement of positive externalities are controversial. *See id.* at 23.

^{12. &}quot;Empty box" describes the argument that competition in certain industries will be ruinous or excessive, and that therefore entry of firms into a market should be restricted. This justification for regulation was often cited for the airline and trucking industries.

^{13.} See BREYER, supra note 9, at 191–314.

^{14.} See id. at 341–68.

^{15.} Id. at 341.

883

not yet consider themselves to have choices among providers of essential services.

This article describes the ways in which state PUCs are responding to and helping to shape the enormous changes in the "network industries"¹⁶—adapting to demands to facilitate more open markets while continuing to protect critical public interests. The article focuses on telecommunications, but also refers to relevant work within the energy industries, and occasionally draws on the author's own experience as a Montana Public Service Commissioner. Part I discusses several of the many external factors driving change, and suggests some initial responses. Part II describes the strong support of state commissions for the development of competition, pre-dating passage of the Telecommunications Act of 1996, and the conscious effort to restructure PUCs now underway by utility industries, ratepayers, state and federal governments, and especially by the commissions themselves. Part III summarizes four critical PUC roles in serving the public interest that should be preserved as the regulatory process is restructured: (1) protecting and informing consumers; (2) promoting competition; (3) preserving and advancing universal service; and (4) encouraging access to advanced technologies. The article's Conclusion examines citizen engagement in the regulatory process—a crucial and often overlooked value that overlaps other issues, and one which PUCs are well positioned to address. Currently, however, entities and procedures with relatively less transparency and customer focus are poorly suited to advance this principle.

^{16.} Network industries are systems of interconnection and coordination. Economic regulation has traditionally focused on physical networks such as natural gas and electric production, transmission, and distribution; water and sewer systems; and telecommunications networks. Telecommunications networks require sophisticated coordination and integration of longer-term planning and shorter-term management, including the ability to handle daily fluctuations in traffic. See WILLIAM W. SHARKEY, THE THEORY OF NATURAL MONOPOLY 181–84 (1982). "The need for integrated planning is one of the most complex and difficult issues to be addressed in an examination of natural monopoly in telecommunications." *Id.* at 184. "[A] characteristic of demand, which distinguishes telecommunications from most other utilities, is the interdependent nature of demand. Communication is inherently a two-party or multiparty process. But only one party is typically charged. This results in an economic externality, which complicates somewhat the use of the prices in the industry." *Id.* at 185.

I. CHANGE DRIVERS—TECHNOLOGY, POLICY, FEDERALISM

A long list of factors drives change in network industry policy. The list includes growth of the consumer and citizen participation movements, as well as the globalization of utilities markets, to name just two examples. David Wirick, who leads the National Regulatory Research Institute's ("NRRI") Commission Transformation Program,¹⁷ has advised numerous state PUCs on agency change. Wirick identifies the external forces driving change as: legislative intervention; eroding consent of some parties to the traditional regulatory arrangements; a power shift from producers to at least some consumers; and the development of new models of decision making.¹⁸ Wirick's discussion is important because it describes ways that PUCs have been buffeted by the winds of change, and it suggests possible ways to correct the course and sail ahead. This section builds briefly on his analysis by discussing three additional change drivers that are especially important to economic regulation: technology, competition policy, and the development of national industry policy within a federalist framework.

A. Technology

It is impossible even to imagine the development of competition in network industries without recognizing the role of technological innovation in almost all segments of all industries. Local telecom competition depends on the sophisticated hardware and software of Operations Support Systems that have developed in recent years.¹⁹ Market demand sufficient to support local competition relies on innovation in applications

^{17.} See infra Part II.B for a discussion of the NRRI and its role.

^{18.} See DAVID W. WIRICK, NEW MODELS OF REGULATORY COMMISSION PERFORMANCE: THE DIVERSITY IMPERATIVE (Nat'l Reg. Res. Inst. Report No. 99-15, 1999) 1–11, available at National Regulatory Research Institute, Download Research (visited Mar. 28, 2000) http://www.nrri.ohio-state.edu/download.htm [hereinafter NRRI Download Research Web Site].

^{19.} OSS functions include pre-ordering, ordering, provisioning, billing, maintaining, and repairing services ordered by competitive telecom providers from incumbents. They are key to the fourteen-point competitive checklist in Section 271 of the Telecommunications Act. *See generally* FRANK P. DARR, THIRD-PARTY TESTING OF OPERATIONAL SUPPORT SYSTEMS: BACKGROUND AND RELATED MATERIALS (Nat'l Reg. Res. Inst. Report No. 99-13, 1999), *available at* NRRI Download Research Web Site, *supra* note 18. Similar systems are important to the development of energy competition.

and the long-awaited convergence of telecommunications, computing, consumer electronics, and broadcasting that is now finally occurring.²⁰ All kinds of information may be digitized, and digital information may be carried over networks with increasing speed and capacity. Moreover, realistic mass-market alternatives for local loop telecommunications services may be on the technological horizon.²¹

Similarly, in energy markets, the development of new hardware and software technologies to manage the electric transmission grid are facilitating complex power transactions.²² New generation technologies have challenged traditional economies of scale, and may change the relationship between the customer and the grid.²³

Technology has the potential to change everything. Networks are becoming bigger and more complex, while some customers are demanding more tailored and specific services. These demands might include particular pricing, billing, or service arrangements; specific telecommunications features or configurations of equipment and software; electricity believed to be from a more environmentally benign source; or an especially stable power supply to support a particular industrial process. This tailoring of service may develop as "fringe" or

^{20.} See PENNSYLVANIA STATE UNIVERSITY'S INSTITUTE FOR INFORMATION POLICY, THE NEW GLOBAL TELECOMMUNICATIONS INDUSTRY & CONSUMERS (1999).

^{21.} See GEORGE ABE, RESIDENTIAL BROADBAND (1997) (describing each of the broadband access paths and issues associated with each path). Much discussion of local telephone competition focuses on the importance of multiple paths to the retail customer. For large customers in urban areas, multiple providers now do exist. In rural areas for most customers, and in most areas for small customers, there is now likely to be only one provider of basic telecommunications service. Wireless alternatives are most promising. Currently, however, most customers use wireless service as a complement to (providing mobility) rather than a substitute for their primary wire line.

^{22.} The Electric Power Research Institute ("EPRI") is an excellent source of information about technology research and development in the electricity industry. Technology issues associated with grid operation and management are discussed at *EPRI: Transmission Systems > Grid Operation and Mangagement* (visited Mar. 28, 2000) http://www.epri.com/target.asp?program=83&torgid=281&Marketnid=8. More general information about EPRI's Strategic Science and Technology program is available at *EPRI: Strategic Science & Technology > About Strategic Science & Technology* (visited Mar. 28, 2000) www.epri.com/ program=198559&objid=223867>.

^{23.} See John Rowe, Profits and Progress Through Distributed Resources, *available at* The Regulatory Assistance Project, *Distribution Utility* (visited Mar. 28, 2000) http://www.rapmaine.org/distribution.html.

"niche" competition on the mass market's curtilage—for example, a specific "green power" market for wind-produced energy—or as "mass customization," using information technology to customize mass-market products to the desires of particular groups of customers. Larger customers will likely seek and receive at least some of these options first.

Technology has the *potential* to change everything. However, public policy must recognize the gap between the research lab and deployment in the marketplace, and view markets as they are, not only as we want them to become. It is also occasionally necessary to resist the "public policy solipsism" of those (the author very much included) who are excited about new technology and who might otherwise tend to assume everyone else shares that passion. The telecom market remains highly segmented. Not all customers have access to, or even want, the same things. Many customers take bare-naked "Plain Old Telephone Service" ("POTS"), or have only one vertical service, such as call waiting, perhaps simply as a less costly alternative to a second line.²⁴

An appropriate compromise is to renew our commitment to affordable and reliable POTS while developing cooperative and coordinated approaches to expanding effective access to "Plenty of Amazing New Stuff" ("PANS"). The National Association of Regulatory Utility Commissioners ("NARUC")²⁵ has proposed that the Federal Communications Commission ("FCC") create a Federal-State Joint Conference on Access to Advanced Technologies to move past the political and regulatory arguments and concentrate on real solutions to real problems faced by the

^{24.} The Consumers Union and Consumers Federation of America used material originally developed by the Florida Public Service Commission to document the high segmentation of the residential telecommunications market. See Dr. Mark Cooper & Gene Kimmelman, The Digital Divide Confronts the Telecommunications Act of 1996: Economic Reality Versus Public Policy, available at Consumers Union (visited Mar. 28, 2000) <http://www.consunion.org/other/telecom4-0299.htm>.

^{25.} NARUC represents the interests of state PUCs nationally by working with Congress, the federal agencies, and through the courts. It provides training and technical assistance and supports research and education programs. Much of its work is done through standing committees, either focused on a particular industry or on a topic that affects several industries. As Chairman of the Telecommunications Committee and an officer of NARUC, the author helped develop many of the approaches described in this article. *See generally* The National Association of Regulatory Utility Commissioners (visited Feb. 14, 2000) ">http://www.naruc.org.

887

full range of real telecom customers.²⁶ In short, policy makers should rattle the POTS *and* the PANS.

B. Competition Theory

Between technology and competition-focused public policy, it is sometimes hard to say which is the chicken and which the egg. However, it is undeniable that advances in technology and aggressive competition policy go hand in hand. Across the political spectrum, there is strong support for workable competition where it can be achieved. To cite but one example, new technologies are enabling independent electrical producers to cheaply generate power for sale to the mass market. Consumer advocates were among the earliest to call for marginal cost pricing, to support the PURPA "qualifying facilities"²⁷ approach to bringing independent generators on the electric grid, and to support competitive bidding for a new generation. To paraphrase President Nixon explaining his embrace of Keynesianism, "we are all free marketers now."

The differences do not focus on whether workable competition is good. Rather, the differences focus on how competition should be measured—what degree of market "policing" is appropriate, and how various "public purposes"²⁸ should be

^{26.} See The National Association of Regulatory Utility Commissioners, Resolution Endorsing a Federal-State Joint Conference on Advanced Services (adopted July 23, 1999), available at NARUC Summer Committee Meetings (visited Mar. 28,2000) http://naruc.org/Resolutions/summer99.htm.

^{27.} See 16 U.S.C. § 824a-3 (1994). PURPA requires utilities to buy electric power from private "qualifying facilities" ("QFs") at an avoided cost rate. This avoided cost rate is equivalent to what it would have otherwise cost the utility to generate or purchase that power themselves. To become a "qualifying facility," an independent power supplier must produce electricity with a specified type of fuel (cogeneration or renewables), and meet certain ownership, size and efficiency criteria established by the Federal Energy Regulatory Commission. Utilities must also provide customers who choose to self-generate a reasonably priced back-up supply of electricity. See id; National Association of Regulatory Utility Commissioners, Glossary (visited Feb. 23, 2000) http://www.naruc.org/glossary.htm#PURPA>.

^{28. &}quot;Public purposes," also known as "public benefits" or "stranded benefits," is shorthand for what are widely considered to be good things the traditional monopoly model accomplished. These include, for example, universal phone service, research and development, low-income energy assistance, and energy conservation. See National Association of Regulatory Utility Commissioners, *Glossary* (visited Feb. 23, 2000) <http://www.naruc.org/glossary.htm#Stranded Benefits>; see also MONT. CODE ANN. §§ 69-8-103(36) (1999) (defining public purposes to include programs designed to provide cost-effective local energy conservation, low-

achieved. One group of economists, sometimes called the idealists, focuses on the dynamic actors and technology that already exist, lowering barriers to entry, and the threat of further competitive entry.²⁹ Alfred Kahn offers a particularly compelling example of this school in urging regulators to "let go" in advance of competition, rather than attempt to manage competition as it advances.³⁰ A second group, the strategists,³¹ includes traditional industrial organization economists who are equally serious about markets, but who focus more on the strategic decisions of actors within specific market structures, and emphasize Structure Conduct Performance analysis³² and market concentration measurements.³³

29. See THOMAS J. DUESTERBERG & KENNETH GORDON, COMPETITION AND DEREGULATION IN TELECOMMUNICATIONS: THE CASE FOR A NEW PARADIGM (1997); PETER HUBER, LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM (1997).

30. See ALFRED E. KAHN, LETTING GO: DEREGULATING THE PROCESS OF DEREGULATION (1998) (criticizing regulators for micromanaging the entry and survival of new companies even if it results in inefficient competition). Kahn argues:

The continued responsibility of public utility regulatory commissions to ensure access by challengers to essential network facilities at reasonable rates presents them with a temptation—indeed, in a sense, a responsibility—to micromanage the process of deregulation At the same time, there is every difference between regulatory interventions establishing the conditions under which competition may be relied on to determine the outcome and interventions intended, whether consciously or unconsciously, to *dictate* that outcome.

Id. at 70.

31. See generally ROBIN MANSELL, THE NEW TELECOMMUNICATIONS—A POLITICAL ECONOMY OF NETWORK EVOLUTION (1993) (arguing that the strategic model better predicts investment and network deployment).

32. See Harry M. Trebing, Structural Change and the Future of Regulation, 71 LAND ECON. 401, 405 (1995).

The SCP [structure-conduct-performance] approach argues that market structure will influence conduct (behavior) and performance. Market structure is particularly affected by concentration, diversification, product differentiation, barriers to entry, and scale/scope economies. Conduct reflects, among other things, pricing, marketing, planning practices, and profit goals. Performance includes allocative, dynamic, and xefficiencies, as well as equity and employment considerations.

Id.

33. Market concentration measurements typically examine the relevant geographic market, relevant product market, number of firms participating in the

income customer weatherization, renewable resource projects and applications, including those that capture unique social and energy system benefits or that provide transmission and distribution system benefits, research and development programs related to energy conservation and renewables, market transformation designed to encourage competitive markets for public purpose programs, and lowincome energy assistance).

Both approaches have influenced telecommunications policy. Both approaches have influenced PUCs. Taken to an extreme, either approach could distort public policy. A purely idealist approach could lead to Panglosian policies irrelevant to the structure of actual markets as experienced by consumers. A purely strategic approach could result in maintaining tight controls over markets that are in the process of becoming competitive, and distorting that process by never "letting go of the bicycle."³⁴ The challenge lays in finding an approach that allows markets to continue their move toward increased competition, but which allows commissions or other entities to continue their role of protecting the interests of citizens, ratepayers, and other constituents in the future.

C. Federal Telecommunications Policy

With technology and competition policy driving change, it is inevitable that the federal-state relationship will also change. Regulation of telecommunications, perhaps even more than electricity regulation, has always had a strong element of national-level policy. Universal service and the "jurisdictional separations" process are two examples. There is no equally robust analogue in energy policy to the nation's long-standing commitment to universal telephone service.³⁵ Similarly, jurisdictional separations—the complex process of tracking and al-

market, and the market share of each firm to produce a number which may be used to compare the concentration of markets, the change in concentration over time, or the possible change in concentration if a particular transaction occurs. The most common measurement is the Hirschman-Herfindahl Index, which, for example, is used in United States Department of Justice and Federal Trade Commission merger reviews. The Landes-Posner Index is also frequently cited. *See* William A. Landes & Richard A. Posner, *Market Power in Antitrust Cases*, 94 HARV. L. REV. 937 (1981). Landes and Posner note the difficulty of applying market measurements directly to rate-regulated markets. *See id.* at 975–76.

^{34.} Hon. Michael F. Powell, "Letting Go of the Bike": A Holiday Parable on Communications Mergers in a Season of Competition, 19 NRRI Q. BULL. 351 (1999) (suggesting possible principles to limit review of mergers).

^{35.} The Federal Telecommunications Act of 1934 sought "to make available, so far as possible, to all the people of the United States . . . a rapid, efficient . . . communication service with adequate facilities at reasonable charges" 47 U.S.C. § 151 (Supp. III 1997). Section 254 of the 1996 Act expanded and made more specific this objective, for example by including schools, libraries and rural health care providers, and by requiring reasonable comparability of rural and urban rates and service. *See id.* § 254(h). In energy, specific federal programs support low-income energy assistance and weatherization, but there is no general national universal service policy in energy for customers of investor-owned utilities.

locating costs and revenues among the federal, state, and unregulated categories—is exceptionally well developed in telecommunications.³⁶

The Telecommunications Act is explicitly "cooperative federalist" in structure.³⁷ It lists detailed responsibilities for both federal and state regulators in areas including interconnection, consumer protection, universal service, provision of in-region long distance service by Regional Bell Operating Companies ("RBOCs"), and promotion of access to advanced technology. The Act's passage made state PUCs instruments of federal policy to an unprecedented extent. Even among the many states that had already adopted pro-competitive telecommunications regimes, it was in some cases necessary for state legislatures to give their PUCs new authority to carry out the federal Act's directives.³⁸

The Act's passage obviously intensified the relationship between the FCC and state commissions.³⁹ Despite disagreement

^{36.} See Smith v. Illinois Bell Tel. Co., 282 U.S. 133 (1930) (holding that costs have to be recognized in the jurisdiction where they are incurred); 47 U.S.C. § 410(c) (Supp. III 1997). The core separations rules are set out in 47 C.F.R. pt. 36 (1998). Traditionally, the separations process starts with costs as accounted pursuant to Uniform System of Accounts for Telecommunications Companies, 47 C.F.R. pt. 32 (1998). These costs are then categorized as (generally) loop, local switch, trunk, tandem switch, and operator systems. Categorized costs are then allocated to the intrastate or interstate jurisdiction as specified in 47 C.F.R. pt. 36. Since 1987, non-regulated costs have been separated out before costs are assigned to one or the other jurisdiction.

^{37.} See Philip J. Weiser, Chevron, Cooperative Federalism, and Telecommunications Reform, 52 VAND. L. REV. 1, 3 (1999). Weiser describes cooperative federalism systems as those in which state as well as federal agencies are charged with implementing federal law. He argues that "Chevron deference" should be afforded to state agencies charged with implementing the Telecommunications Act, as it is to the FCC. See *id.*; see also Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984). For an early discussion of cooperative federalist approaches to telecommunications reform, see RAYMOND W. LAWTON, THE TRANSFERABILITY OF THE COOPERATIVE FEDERALISM MODEL USED FOR ELECTRIC AND NATURAL GAS UTILITIES TO TELECOMMUNICATIONS REFORM LEGISLATION (Nat'l Reg. Res. Inst. Report No. 94-31, 1994).

^{38.} For example, Montana had never allowed exclusive local telephone franchises and had express policy in favor of competition. Nonetheless, in 1997 the Montana Legislature adopted extensive new provisions concerning, among other things, arbitrations, wholesale pricing, and universal service, *see* MONT. CODE ANN. §§ 69-3-836 to 69-3-843 (1999) and slamming, *see* MONT. CODE ANN. §§ 69-3-1305 (1999).

^{39.} See Bob Rowe, Foxes, Hedgehogs, and Federalism: States Implement the Telecommunications Act, in IS THE TELECOMMUNICATIONS ACT OF 1996 BROKEN? IF SO, HOW CAN WE FIX IT? 86 (J. Gregory Sidak ed., 1999). Isaiah Berlin famously quoted Archilochus: "The fox knows many things, but the hedgehog knows

over whether the FCC's wholesale pricing rules violated the reservation to states of authority over intrastate rates and services,⁴⁰ descriptions of federal-state tension were somewhat overblown.⁴¹ However, some tension is healthy and, in any event, is a design element of the American constitutional system. Since Congress has already provided us with broad policy goals, the challenge is to construct an overall framework for co-operation between federal and state agencies, and to develop specific "cooperative federalist" practices that capture the strengths of federal and state entities.

The FCC and state commissions have done that through a "Magna Carta" first proposed by Chairman William Kennard and developed cooperatively between the FCC and NARUC,⁴²

40. States challenged the FCC's Total Element Long Run Incremental Cost ("TELRIC") wholesale pricing rules (setting the prices which one carrier could charge another carrier for the use of portions of the network such as a loop or switch or for resale of service) under the Telecommunications Act, which reserves to states authority over retail prices and service. See 47 U.S.C. § 152(b) (Supp. III 1997). States believed setting wholesale prices necessarily affected terms for retail service. The United States Supreme Court decided in the FCC's favor, see AT&T v. Iowa Utils. Bd., 525 U.S. 366 (1999). State PUCs did not participate in other issues on appeal, and generally did not oppose the substance of many of the FCC's rules. State PUCs are generally charged with arbitrating and approving agreements concerning wholesale level terms. See 47 U.S.C. § 252 (Supp. III 1997). The author and others had urged that the TELRIC rules be offered as a model or guidelines for state PUCs to consider and use as appropriate in determining wholesale prices. Indeed, while the rules were stayed, states generally adopted the FCC's TELRIC rules voluntarily.

41. During the crucial months following passage of the Telecommunications Act there were daily, productive discussions on a range of topics between FCC and state PUC staff, and frequent discussions between FCC and state PUC commissioners. The author participated in many of these.

42. See The National Association of Regulatory Utility Commissioners, Resolution Regarding the "Magna Carta" for State, U.S. Territories, and Federal Regulators, *available at Collocation* (visited Feb. 1, 2000) <http://www. naruc.org/Resolutions/reswin99.htm>. The "Statement of Participation" from the "Magna Carta" is as follows:

State and U.S. territory commissions and the FCC possess complementary strengths. We will work together to take full advantage of these, in the spirit of cooperative federalism.

Cooperation between the federal and State and U.S. territory decisionmakers takes advantage of the strengths of each. The federal, State and U.S. territory proceedings are fact-based and the commissions are able to analyze and act on complex records. States and U.S. territories are close to local markets and have developed methods for evaluating the

one big thing." *Id.* The author suggested that, immediately after passage of the Act, the FCC was occasionally a hedgehog focused on the "one big thing" of implementation, while state PUCs were foxes concerned with multiple objectives. The world needs both foxes and hedgehogs, but they can sometimes find one another frustrating. *See id.* at 87.

and through a growing list of joint projects. The fruits of these cooperative federalist efforts are reflected in the broad general agreement on regulatory actions that has developed between state and federal regulators. While there are specific disagreements, NARUC has adopted many more policy resolutions urging specific FCC actions than opposing FCC actions.⁴³ Con-

structure of those markets. States and the U.S. territories also benefit from experience with other industry restructurings, including natural gas and electricity. The FCC possesses not only a national, but also a global perspective. Moreover, it is expert in dealing with all forms of communications. Together, the FCC, the States and the U.S. territories can accomplish much in addressing customer concerns, the linchpin of the regulatory process.

FCC actions affecting States and U.S. territories should be undertaken in a manner that is consistent with its statutory obligations, while mindful of States' and U.S. territories' unique knowledge of local conditions and experience in regulating the local market. In areas where national standards are appropriate, the FCC will strive to implement them in a way that encourages State and U.S. territory input to the fullest extent possible. The parties recognize the value of diversity and of experimentation in many circumstances. The States and the U.S. territories will support the FCC in its efforts to meet the challenges presented by the implementation of the Act to the fullest extent possible.

Generally, certain practices can help federal, State and U.S. territory regulators achieve their goal of mutual cooperation. Such practices may include encouraging State participation in FCC proceedings, as well as FCC participation in crucial State and U.S. territory proceedings. Encouraging hands-on consultation among State, U.S. territory and federal policy-makers and developing and using "best practices" guidelines will contribute to the collaborative process. Cooperative development of substantive models or standards, which may be considered by States and U.S. territories in formulation of State/U.S. territory-specific policies, will aid in achieving the common goals.

Id. 43. A key

43. A key current area of concern for some state commissioners is the FCC's decision to declare internet access services interstate rather than a combination of local, long distance, and private line elements. See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 14 F.C.C.R. 3689 (1999) (declaratory ruling), vacated and remanded sub nom. Bell Atl. Tel. Cos. v. FCC, No. 99-1094, consolidated with 99-1095, 99-1097, 99-1106, 99-1126, 99-1134, 99-1136, 99-1145, 2000 U.S. App. LEXIS 4685 (D.C. Cir. Mar. 24, 2000). The D.C. Circuit vacated the FCC ruling and remanded the case, because the FCC finding was not based on a satisfactory explanation as to "LECs that terminate calls to ISPs are not properly seen as 'terminating . . . local telecommunications traffic,' and why such traffic is 'exchange access' rather than 'telephone exchange service." 2000 U.S. App. LEXIS, at *26. The appeal court stated that the incumbents are "free to seek relief from state-authorized compensation that they believe is wrongly imposed." Id. at *26–27.

As noted by state commissioner members of the Federal-State Joint Board on Separations, this decision has at least the potential to significantly shift revenues between the intrastate (local) side and the interstate side, with a possible mis-

893

sumer protection is a key area for FCC-state commission cooperation.

Even more than was the case with telecommunications competition in the 1980s, most of the impetus for electric competition is occurring in the states (with a varying mixture of legislative and PUC initiatives). Although Congress has not passed electric restructuring legislation, well over half the population lives in states that are somewhere in the process of opening retail markets, providing retail customers direct access to generation supplies of their choice.⁴⁴ NARUC has outlined a number of goals it believes should be incorporated into any future federal legislation. These include protecting low-income customers from harm, preserving low-income rate and energy

match of revenues and expenses. See Letter from James Bradford Ramsay, Assistant General Counsel, National Association of Regulatory Utility Comm'rs, to Magalie R. Salas, Secretary, FCC (Dec. 14, 1998) (on file with the author); James B. Ramsey, Comments of the State Members of the CC Docket 80-286 Federal-State Joint Board on Separations in In re Implementation of Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, and Inter-Carrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68, (comments filed with the FCC on Apr. 16, 1999) (on file with the author); Letter from Hon. David Rolka, Comm'r, Penn. Public Utiliy Comm'n, et al., State Members of the Federal State Joint Board on Separations, to William E. Kennard, Chair, Federal State Joint Board on Separations, et al. (June 17, 1999) (on file with the author). This could in turn significantly affect retail rates, consumption and investment decisions. Separations reform is essential and overdue. So long as constitutional confiscation claims by carriers are possible, some form of separation is required. See id. at 3. However, a variety of simplifications and rationalizations are possible, and some proposals have the virtue of splitting authority along lines tied to the jurisdiction with the greatest interest. See id. at 2. Reform might range from a simple freeze to a fundamental realignment of federal and state responsibility to better match both areas of greatest expertise and the way networks are generally developed.

^{44.} See Brubaker & Associates, Inc., Restructuring Map (visited Mar. 28, 2000) <http://www.consultbai.com/restructmap.htm>. Wholesale competition refers to distribution companies which purchase power in the competitive wholesale power markets rather than relying on their own generation. Retail competition refers to retail customers who purchase power directly. Under most retail competition schemes, distribution and transmission continue to be considered monopoly functions. Billing, collection and customer-related functions may be assigned to the regulated distribution company or may be provided competitively. In Montana, for example, generation makes up perhaps thirty percent of a typical residental customer's total electric bill. Unlike a phone call, electricity is not routed through a switch. Electricity flows across the transmission and distribution lines according to its own laws. Therefore, a retail customer's decision to purchase from a particular supply source is most accurately seen as affecting how generating plants connected to the transmission grid are dispatched (turned up or down, on or off). Bill Spratley's Leap Letter is an excellent source of detailed information on state efforts to restructure energy policy and markets. See generally Bill Spratley, Leap Letter (last modified Dec. 24, 1999) < http://www.spratley.com/leap>.

conservation programs,⁴⁵ preventing unfair cost shifting between customer classes, maintaining fair customer policies, preserving system reliability, and ensuring effective participation of all citizens in the restructuring debate.⁴⁶ A very active coalition of low-cost states, operating independently of NARUC in this instance, does not necessarily oppose a federal role in energy restructuring outright, but rather focuses on ensuring that low-cost states are able to design regimes that best serve their customers.⁴⁷ Montana, for example, is a rural state with very low per capita income and high heating degree days, but with very low energy rates. Nonetheless, Montana was among the first states in the country to begin the complete restructuring of its electric industry, now including the divestiture of virtually all generation capacity by the major investor-owned utility, Montana Power Company.⁴⁸

Internally, states are applying transferable skills from one industry undergoing restructuring to another. Externally, NARUC and states are applying lessons learned from passage

^{45.} Many PUCs have approved utility programs that provide rate assistance and energy conservation services for low- and moderate-income customers (often including the elderly). Costs are expensed by utilities and recovered through the current "bundled" rate (which includes generation, transmission, distribution, customer service and other elements). With competitive generation supply and "unbundled" bills, new ways to pay for these programs must be devised if they are to continue. A common approach is an end-user charge which appears on the retail customer's bill. See MONT. CODE ANN. §69-8-402 (1999).

^{46.} See The National Association of Regulatory Utility Commissioners, Resolution Re-Affirming NARUC's Fundamental "Principles to Guide the Restructuring of the Electric Industry" (Nov. 10, 1999) (on file with the author).

^{47.} See Letter from Low Cost States to Members of Congress (Dec. 3, 1998) (discussing low-cost states initiatives) (on file with the author).

^{48.} The Montana PSC conducted a series of restructuring roundtables in 1995, ordered the Montana Power Company to file a restructuring plan, and approved several market-based pricing proposals. It has also acted on a comprehensive natural gas restructuring case. The 1997 Montana Legislature enacted sweeping restructuring legislation for both energy industries, which the PSC has been busy implementing since. See Inquiry into Restructuring Electric Utility Industry, Montana Pub. Serv. Comm'n Docket No. D95.7.96 (filed June 9, 1995); MPC Transition Plan-Electric Restructuring, Montana Pub. Serv. Comm'n Docket No. D97.7.90 (filed May 28, 1997); MPC Revenue Requirements, Gas Costs, Allocated Cost of Service and Rate Design, Montana Pub. Serv. Comm'n Docket No. D96.2.22 (filed Feb. 14, 1996); The Energy Page (visited Mar. 4, 1999) <http://www.psc.state.mt.us/gaselec/gaselec.htm>. The author raised specific concerns about the 1997 electric restructuring legislation, however, a majority of the PSC endorsed the legislation as proposed. See Bob Rowe, Electric Industry Restructuring: Overview of Regional and Montana Issues, available at Bob Rowe (visited Mar. 4, 2000) <http://www.psc.state.mt.us/browe/electric.txt>.

and implementation of the Telecommunications Act to work on federal energy legislation. For example, PUCs must be able to coordinate with one another on an ongoing basis, share information, and make decisions quickly. PUCs must think through appropriate structures for federal-state relations, and devise ways to achieve appropriate national objectives while preserving state ability to respond to particular circumstances and to innovate, for example, by improving on or customizing a flexible national approach. PUCs must clearly explain what they are for, not just what they oppose. States and PUCs are particularly well suited to engage citizens in consideration of how the rules governing utility markets may change and are changing, and to ensure citizens' views help to inform the debate. Together, they have had an important impact on the formation of national telecommunications policy.

II. FORM FOLLOWS FUNCTION—STATE PUCS INITIATE MARKET CHANGE AND REINVENT THEMSELVES

A. Substantive Changes Highlight Strengths and Weaknesses in the Current Structure of State PUCs

NARUC and many state PUCs have supported a rigorous understanding of competition, a renewed emphasis on consumers, and the general move to restructure state commissions. It is widely recognized that the competition provisions of the Telecommunications Act of 1996 were based in significant part on the work of states as diverse as New York, Illinois, and Oregon,⁴⁹ demonstrating broad support for the provisions of the Act among PUCs. From 1994 through 1996, NARUC undertook an extensive project aimed at developing specific technical policies on local competition and presenting an orderly approach to all the key competition issues. The project reflected the learning and experience of many PUCs.⁵⁰ In its advocacy before passage of the Telecommunications Act, NARUC specifically endorsed

^{49.} See VIVIAN WITKIND DAVIS, BREAKING AWAY FROM FRANCHISES AND RATE CASES: A PERSPECTIVE ON THE EVOLUTION OF STATE TELECOMMUNICATIONS POLICY (Nat'l Reg. Res. Inst. Report No. 95-06, 1995).

^{50.} See NARUC Staff Subcommittee on Communications, Local Competition Work Group Summary Report (Feb. 1996) (on file with the author).

federal preemption of statutory barriers to competitive local entry, now part of section 253 of the Act. 51

While many PUCs have aggressively promoted workable competition, they have also reassessed their own structures, and attempted to develop methods more appropriate to their new missions. As described below, NRRI has supported NARUC in this work. Expanding and redesigning the consumer function is a critical part of most PUC restructuring efforts.

PUCs have certain clear strengths. They are structurally separate from the management of the utility firm, in contrast to the public ownership model traditional in some nations. By structure, legal requirement, and tradition, they are relatively more independent in their decision making than are other governmental agencies.⁵² The multi-member design of state PUCs, coupled with specific administrative procedure act requirements and more general "government sunshine" requirements,⁵³ results in decisions that are "transparent" to consumer and industry participants, as well as other interested parties. That is, both the reasons for the decision and the process through which the decision was reached are clear to anyone who has the ability and patience to read the record. PUCs have developed significant expertise in relevant specialties in accounting, finance, economics, engineering, and law, and they are developing similar expertise in consumer education and

^{51.} See The National Association of Regulatory Commisioners, Resolution Adopting NARUC Federal Telecommunications Legislative Policy Principles (Mar. 1994) (on file with the author). Section 253 of the Telecommunications Act prohibits state or local enactments which block any entity from providing telecommunications service. See 47 U.S.C. § 253(a) (Supp. III 1997). Section 253 recognizes state authority to preserve and advance universal service, protect public safety and welfare, ensure service quality, and protect consumers. See id. § 253(b). Competitively neutral rights-of-way management and the ability to require fair compensation for their use is also preserved. See id. § 253(c).

^{52.} See NANCY N. ZEARFOSS, THE STRUCTURE OF STATE UTILITY COMMISSIONS AND PROTECTION OF THE CAPTIVE RATEPAYER: IS THERE A CONNECTION? (Nat'l Reg. Res. Inst. Report No. 98-14, 1998), available at NRRI Download Research Web Site, supra note 18. Zearfoss concludes from her research that PUCs react not so much to political pressure or economic incentives, but to information, and that information is a significant determinant in their decision making process. Where the public has insufficient information to take a position on an issue, a PUC with greater resources, including more professional personnel, is more likely to be its champion. See SCHWARTZ, supra note 2, at 19.

^{53.} See MONT. CONST. art. II, §§ 8, 9; see also MONT. CODE ANN. §§ 2-3-103, 2-3-201, 2-3-221 (1999).

protection. They have also developed aggressive and often innovative ways to involve and inform citizens. These strengths are worth preserving, as they will certainly be useful to restructured regulatory agencies.

At the same time, PUCs face severe limitations. Turnover among commissioners and key staff is sometimes high. Moreover, a commission's authority may be inconsistent with the scope of converged markets. Regulators may have limited authority to conduct necessary proceedings, to craft appropriate remedies, or even to forbear from regulation that is not necessary. PUCs sometimes have limited authority to gather and disseminate certain kinds of information. Procedural requirements may restrict or appear to restrict the ability of PUCs to conduct alternative proceedings, negotiated rulemakings, or expedited proceedings. The end-of-the-day prospect of judicial review may force PUCs to develop a perhaps overly comprehensive (and therefore costly) record, and protracted (and therefore costly) hearing processes. Their organizational culture may be stagnant or resistant to change. Insufficient financial resources may hinder their ability to undertake aggressive consumer education or other programs. Some PUCs may therefore lack the flexibility needed to respond well to changes in the marketplace.

William H. Melody studies comparative industry and regulatory structures in support of privatizing publicly owned networks and opening markets to greater competition.⁵⁴ He divides the critical issues into policy development, operations management, and regulation. He describes the regulator's appropriate role as one that is independent both from the utility and, on a day-to-day basis, from general political influences as well.⁵⁵ Regulation requires professional management able to

^{54.} See generally WILLIAM H. MELODY, Policy Objectives and Models of Regulation, in TELECOM REFORM: PRINCIPLES, POLICIES AND REGULATORY PRACTICES 13, 13–27 (William H. Melody ed.) (1997).

^{55.} See id. at 21. Melody continues:

The regulator's task is to implement government policy, ensure performance accountability by the PTO [public telecom operators] and other players to economic and social policy objectives, resolve disputes between competitors and between customers and competitors, and between consumers and operators, monitor changing industry conditions, and advise government on developments bearing on policy. The regulatory agency acts as a buffer between telecom operators and government, helping to ensure the separation of functions. Whereas the PTO and other opera-

adapt its operations to a dynamic environment. Regulators must understand technical and market developments. "Public transparency [is] especially important."⁵⁶ This may be achieved through methods including professional qualification, independent budget and employment processes, public reporting and accountability, and reliance on several commissioners with staggered terms rather than on a single regulator.

A growing number of state PUCs have adopted innovative approaches while preserving the strengths described by Melody. PUCs are generating innovative new approaches to resolving disputes among parties, creating enforcement mechanisms, and addressing issues affecting quality and customer service. For example, the Texas PUC uses settlement conferences to address informal complaints arising under interconnection agreements, and expedited formal complaints for interconnection-related complaints.⁵⁷ The New York Public Service Commission pioneered the use of collaboratives⁵⁸ and alternative dispute resolution techniques.⁵⁹ The Wisconsin Public Service Commission employs informal dispute resolution

58. In the author's experience, collaboratives are typically relatively informal multi-meeting undertakings, made up of interested parties representing a range of perspectives, working with a neutral facilitator. Collaboratives may be useful to develop a shared understanding of an issue, identify agreed-upon principles, or outline more specific proposals. They may also help identify and narrow areas of disagreement. Often, the results of a collaborative are submitted to an authoritative decision-maker (for example, a PUC) for formal consideration and action.

tors, once separated from direct government influence, may focus too narrowly on economic objectives, the regulatory agency can ensure recognition of social and other policy objectives as well. Although regulation has been used primarily with privately owned operators, it has been found increasingly beneficial with publicly owned operators as well in implementing the same policy objectives.

Id.

^{56.} *Id.* at 23.

^{57.} See David Turetsky, Informal Settlement of Interconnection Agreements, in A COMPILATION OF "BEST PRACTICES" TO IMPLEMENT THE TELECOMMUNICATIONS ACT OF 1996, at 11 (Bob Rowe & Vivian Witkind Davis eds.) (Nat'l Reg. Res. Inst. Report No. 99-07, 1999), available at NRRI Download Research Web Site, supra note 18.

^{59.} See Jaclyn A. Brilling et al., Dispute Resolution Techniques, in A COMPILATION OF "BEST PRACTICES" TO IMPLEMENT THE TELECOMMUNICATIONS ACT OF 1996, supra note 57, at 4–6. The NARUC Staff Subcommittee on Administrative Law Judges developed Model Settlement Guidelines in 1989. See CENTER FOR PUBLIC RESOURCES, INC., NEGOTIATED SETTLEMENT OF UTILITY REGULATORY PROCEEDINGS: RECOMMENDED PRACTICES (1993).

among carriers.⁶⁰ The Montana Public Service Commission uses roundtables to scope and discuss related issues in its several restructuring proceedings, and also informally notices more complex proposed rules for comment before preparing final proposed rules for publication and formal comment. The District of Columbia, Florida, and other states allow certain (non-dominant) carriers to implement tariff changes on one day's notice.⁶¹ The Colorado PUC did groundbreaking work on wholesale service quality,⁶² and is now addressing retail service quality through means including extensive and well-attended public hearings.⁶³

These and other efforts are in part responses to specific situations but are often part of a larger rethinking of PUC missions and practices. For example, the Iowa Utilities Board created internal work groups in four areas—organization, leadership, education, and electronic communication—leading to recommendations that were implemented by the Board.⁶⁴ The Illinois Commerce Commission has created a Millennium Review Committee composed of key stakeholders to make recommendations concerning such things as personnel, information technology, and administrative procedures.⁶⁵ The Tennessee

^{60.} See Craig Siwy, Informal Mediation of Carrier Disputes, in A COMPILATION OF "BEST PRACTICES" TO IMPLEMENT THE TELECOMMUNICATIONS ACT OF 1996, supra note 57, at 7.

^{61.} See Turetsky, supra note 57, at 14.

^{62.} Information about Colorado's wholesale service quality efforts is available on the Colorado Commission web page. See Anthony Marquez, Local Telephone Competition—Proceedings at the Colorado Public Utilities Commission (visited Mar. 28, 2000) http://www.dora.state.co.us/puc/basic.htm.

^{63.} See US West Communications, Pub. Util. Comm'n of Co. Dec. No. C00-34 (Jan. 7, 2000).

^{64.} See Structure Team of the Iowa Utilities Board Staff, A Proposed Structure For the Iowa Utilities Board, 19 NRRI Q. BULL. 83 (1998). According to Board Chairman Allan Thoms, a key to success was assuring no one would lose their job, even as managers did have to reapply for their positions. This assured all were free to offer any suggestions without employment risk. See Electronic Mail Message from Allan Thoms, Chairman, Iowa Utilities Board, to Bob Rowe, (Jan. 10, 1999) (on file with author). The Board adopted a vision "[t]o provide our customers with high quality services through innovative and progressive policies, practices, and personnel." Iowa Utilities Board Home Page (last modified Feb. 1, 2000) <http://www.state.ia.us/government/com/util/util.htm>.

^{65.} According to the Illinois Commission web page, the Millennium Review Committee's role will be:

Reviewing the Commission's regulatory processes, communications between parties, interaction between staff and the commissioners, the

Regulatory Authority uses annual management retreats to examine its mission and develop action steps for the following year; at each retreat, managers develop about thirty steps for the coming year.⁶⁶ The California PUC used scenario planning early in its restructuring effort, convened a Stakeholders Innovation Roundtable, and has pursued creative approaches to consumer affairs, complementing their work on telecom and energy restructuring.⁶⁷ California, New Jersey, and Pennsylvania⁶⁸ have undertaken creative marketing approaches to explain retail electric competition to customers. These initiatives illustrate admirable advances in the administration and performance of PUCs.

However, commissions must continue to focus on engaging individuals both as citizens and as consumers in thinking

66. See Telephone Interview with Sara Kyle, Director, Tennessee Regulatory Authority (Jan. 12, 2000). The Tennessee Regulatory Authority's web page is at *History of the Tennessee Regulatory Authority* (last modified Aug. 4, 1999) http://www.state.tn.us/tra/history.htm.

67. See Telephone Interview with Wesley M. Franklin, Executive Director, Public Utilities Commission of California (Jan. 10, 1999). See generally Memorandum from Wesley M. Franklin, Executive Director, Public Utilities Commission of California, California to Staff and Commissioners (Sept. 10, 1996) (on file with author). The California PUC's web page features a full page dedicated to innovation for public participation found at *Responsive Government—Innovations at the CPUC* (last modified Nov. 4, 1999) http://www.cpuc.ca.gov/ home_page_files/innovations/default.htm.

68. The Pennsylvania PUC web page, *PA PUC Home Page* (visited Feb. 1, 2000) <http://puc.paonline.com/>, includes sections concerning electric competition generally and electric suppliers specifically. *See* Regina R. Johnson & Bruce W. Radford, *Rating the Consumer Education Campaigns*, PUB. UTILS. FORTNIGHTLY, Jan. 15, 2000, at 38, 40–43 (describing Pennsylvania's Electric Choice consumer education program and web page at http://www.electricchoice.com).

Commission's role in policy development, and the use of information technologies in cases.

Identifying structural impediments which effect commissioners decisionmaking processes.

Examining existing laws, rules and practices related to the evolution of the Commission as arbiter of disputes in competitive markets and its enforcement authority.

Consideration of the Commission's proper role in addressing consumer issues and disputes as well as consumer education.

The Millennium Review Committee will make specific recommendations regarding proposed changes in Commission policies and procedures as well as suggestions for statutory changes to the Public Utilities Act that may be required to enact recommended changes. The Committee's report will be presented to the Illinois Commerce Commission by the end of 1999.

ICC: Millennium Review Committee: Overview (visited Jan. 26, 2000) <http://www.icc.state.il.us/icc/mrc/overview.asp>.

about how changes in the market rules will affect them. Key issues include how to capture citizens' attention in the midst of busy lives, and how to provide meaningful, balanced information to help them form their opinions. Moreover, commissioners have a responsibility to help citizens think through the various issues and alternative positions, to register their views, and to account for them in thoughtful, reasoned ways. For example, commissions should try to provide information in a variety of forms and in multiple settings. They should participate in community meetings and, where possible, work through existing organizations such as clubs and civic groups. They should consider using information plus discussion strategies to educate citizens.

B. Research Supports a Rational Approach to PUC Restructuring

NARUC's think tank is the National Regulatory Research Institute ("NRRI"), located at The Ohio State University. NRRI is sometimes called the "Brookings Institute of Columbus," or vice versa. NRRI produces a range of technical papers on each of the regulated industries. It also provides a growing list of publications and projects on competition, especially including the application of industrial organization antitrust economics to regulation. It has generated an equally long list of consumer-oriented reports, including detailed surveys of customer service quality preferences, a compendium of consumer education resource materials, and specific reports on issues such as slamming and cramming. There are also reports on commission restructuring that seek to identify the optimal structure, staffing, and practices for state commissions in emerging markets.

These three research fields—competition, consumer protection, and commission restructuring—are closely related to one another. To cite one example, a key topic in commission restructuring is how to address the consumer protection function.⁶⁹ Consumer protection is important in itself. It is also a

^{69.} See generally ROBERT J. GRANIERE, DETERMINING THE STRUCTURE OF AN OPTIMAL PERSONNEL PROFILE FOR A TRANSFORMED COMMISSION (Nat'l Reg. Res. Inst. Report No. 98-17, 1998), available at NRRI Download Research Web Site, supra note 18; RAYMOND W. LAWTON ET AL., STAFFING THE CONSUMER EDUCATION FUNCTION: ORGANIZATIONAL INNOVATION, NECESSARY SKILLS AND

source of information about practices that may indicate some sort of market failure. It helps discipline markets. It gives customers the confidence and knowledge they need to participate in markets. The advent of competition means new and much bigger challenges for state commissions in the area of consumer protection and education. Where competition may become workable, the goal should be to support change from relatively passive "ratepayers" to more active "shoppers."

Commentators have identified a variety of ways to view telecommunications and regulatory policy issues. For example, Raymond Lawton has suggested a scenario planning approach: identify critical principles and goals a regulatory scheme is intended to advance, consider a wide range of possible regulatory models, and test the ability of particular models to achieve these principles in the context of possible future environments.⁷⁰ For purposes of discussion, Lawton identifies ten principles, including "deregulation is not the same as competition," "regulators optimize, others sub-optimize," and "convergence confusion is an enduring fact-of-life."⁷¹ He then sketches thirty-six possible approaches to regulation,⁷² not all mutually exclusive, and tests their possible performance in three different scenarios.

One of Lawton's approaches concerns a consumers' bill of rights, which he describes as a "micro-regulatory model."⁷³ This approach has attracted special attention among commentators and regulators. For example, in 1995 and 1996, the author consciously sought to consider telecommunications competition from a customer's perspective (especially a small customer), using the metaphor of a "telecommunications customers' bill of rights."⁷⁴ The author's version included fair rates, good quality, universal service, innovation, disclosure, effective remedies, privacy, and especially citizen participation in public policy decision making.⁷⁵

RECOMMENDATIONS FOR COMMISSIONERS (Nat'l Reg. Res. Inst. Report No. 98-10, 1998), *available at* NRRI Download Research Web Site, *supra* note 18.

^{70.} See Raymond W. Lawton, Successor Regulatory Regimes: A Transition to What?, 19 NRRI Q. BULL. 3 (1999).

^{71.} Id. at 4, 6.

^{72.} See id. at 6–10.

^{73.} See id. at 13.

^{74.} See Bob Rowe, Telecommunications Customers' Bill of Rights: A Proposal for Discussion, 19 NRRI Q. BULL. 25, 25–27 (1998).

^{75.} Recently, Dr. Vivian Witkind Davis subjected the "bill of rights" metaphor to thoughtful scrutiny. See generally VIVIAN WITKIND DAVIS, A CRITICAL
Each of these approaches emphasizes somewhat different regulatory tools and goals, and it would be foolish to select one approach to the exclusion of all others. Regulators cannot know how markets will grow and develop, and therefore they require tools and strategies that are likely to be useful over a range of most probable futures. A bill of rights is one such tool, a useful way to think about customers' and citizens' reasonable expectations in an organized fashion.

In the last five years, NARUC and NRRI have convened two commissioner-only summits focused on commission restructuring. The 1995 summit identified core missions including preserving the societal benefits of the current system, fostering a more customer-driven environment, and a new emphasis on consumer protection, often in cooperation with others. The summit identified new tools including market analysis, alternative procedures such as ADR and structured negotiations, and a strong emphasis on outreach to customers and the use of forums such as workshops which would be more accessible to customers and other stakeholders than are traditional contested cases. The 1995 summit also described the barriers to this new vision, including legal constraints, budgetary pressures, staffing issues, and external pressures.

A 1998 follow-up meeting, "Ensuring the Relevance of Commissions at 2003," further developed future missions and roles for state commissions, identified changes required for PUCs to be effective in new environments, and outlined implementation strategies. The 1998 conference report concluded with an outline of the broad goals commissioners hold for the future:

First, ... commissioners ... are committed to extensive change in the way commissions perform their missions. Second, commissioners are strongly committed to ensuring that the public is protected and striving for low-cost, high quality, universally available, non-discriminatory utility service. Third, commissioners are committed to removing barriers to competition. Fourth, commissioners believe that changes need to be made in commission processes to allow less formal methods of decision-making. And lastly, commissioners envision a more proactive role, which includes

903

PERSPECTIVE ON A TELECOMMUNICATIONS BILL OF RIGHTS (Nat'l Reg. Res. Inst. Report No. 99-09, 1999), *available at* NRRI Download Research Web Site, *supra* note 18.

more interaction with legislatures, other state agencies, federal policy-makers, and outreach to consumers and the public at large. 76

Protecting the public, promoting workable competition, and embracing appropriate organizational change are laudable and straightforward guiding principles for PUC restructuring. These principles are beginning to be reflected within many state commissions in a variety of ways. As was discussed above, some commissions have undertaken formal internal or external planning reviews. Others have evolved more informally, but still distinctly.

The Montana Public Service Commission ("PSC") provides one example of a small commission coping with rapid change. It has a staff of thirty-nine, including commissioners, who are immersed in restructuring the state's electricity, natural gas, and telecommunications utilities. To accomplish these goals, the commission created multi-discipline teams for each industry (proving that lawyers and economists can be friends). It assigned full time staff to conduct outreach on the new federal and state universal service programs, with responsibilities including coordinating with other PUCs and with federal program administrators on various issues. The commission uses roundtables to get perspectives from industry and consumer representatives more flexibly and cost-effectively before commencing formal proceedings. Some commissioners hold town meetings, field hearings and other public events. The Montana Commission is attempting to learn from its experience in telecommunications, starting with long-distance competition, as it develops electric competition rules concerning consumer protection, information disclosure, service to low-income customers, and "default service." 77

^{76.} See PROCEEDINGS OF THE SECOND NARUC/NRRI COMMISSIONERS SUMMIT: ENSURING THE RELEVANCE OF COMMISSIONS AT 2003; A SUMMIT MEETING OF STATE PUBLIC UTILITY COMMISSIONERS (Nat'l Reg. Res. Inst. Report No. 98-13, 1998), available at NRRI Download Research Web Site, supra note 18, at 11–12.

^{77.} For example, based on experience with long-distance telephone slamming (the unauthorized switching of a customer's service provider), what rules should be in place to protect against possible energy provider slamming? Considering customers' confusion over telephone bills, how should electric bills be designed to allow customers to make informed, efficient comparisons between alternative providers? Taking into account, among other things, the slow growth of long distance competition in its first few years, especially for smaller customers,

The author especially seeks opportunities to work with communities on longer-term projects with community development implications,⁷⁸ and has conducted field hearings and participated in a variety of public fora to engage citizens in consideration of key issues in energy restructuring. These are examples of how utility policy and issues of citizenship converge.

David Wirick advances the thinking about PUC restructuring based on his own experience consulting with state com-He urges that PUCs adopt flexible approaches, missions. learning from a variety of regulatory models.⁷⁹ He proposes that PUCs implement administrative procedures that may be better suited to policy making than are adjudications—advocating the legislative or policy model.⁸⁰ Further, he argues for the centrality of information, both to empower customers and to create the information infrastructure to support more competitive markets-the regulation by information model.⁸¹ He urges a shift to greater use of collaboration with other entities, and to ensuring that all parties are able to participate—the regulation by negotiation model.⁸² Finally, he elaborates on the centrality of consumer protection and the appropriateness of strengthening this role at PUCs—the "cop on

how should "default" electric service be provided to customers whom no competitive supplier seeks to serve, to customers who have been terminated from service by a competitive supplier, or who simply do not choose a competitive supplier? Are there ways to provide default service that are more or less consistent with encouraging the development of competition and other goals. *See* Application Process for an Electricity Default Supplier License, Montana Pub. Serv. Comm'n Docket No. D99.12.282/L-99.7.9-RUL (filed Dec. 22, 1999); Proposed Adoption and Repeal of Rules Implementing the Electric Utility Industry Restructuring and Customer Choice Act (Title 69, ch. 8, MCA) and the Natural Gas Utility Restructuring and Customer Choice Act (Title 69, ch. 3, MCA) Pertaining to Consumer Information and Protection, Dep't of Pub. Serv. Reg. of the State of Montana Docket No. L-99.7.9-RUL.

^{78.} Economic development as a key function for state public utility commissions is more fully explored in Bob Rowe, *Strategies to Promote Advanced Telecommunications Capabilities*, 52 FED. COMM. L.J. 381 (2000). Community-based approaches involve citizens in an ongoing process of determining their community's service needs, developing strategies to meet those needs, and also providing local training or other resources to maximize the value derived from the services that are available. Rural telephone and electric cooperatives often perform extraordinary services supporting such community efforts.

^{79.} See WIRICK, supra note 18, at 24.

^{80.} See id. at 23-40.

^{81.} See id. at 43-62.

^{82.} See id. at 63-83.

the beat" consumer protection model.⁸³ No model is preferred across all situations. On the contrary, all are consistent with and at times complimentary to the others. Wirick describes his models as "visions for the future," and explains that an organization's vision must combine its fundamental reason for existence, its unchanging core values, and its "huge and audacious, but ultimately achievable, aspirations for its own future."⁸⁴ Wirick's flexible approach is appropriate for the rapidly changing environment in which PUCs function. His work deserves further attention and development by practitioners and by observers, as it could serve as the starting point for specific PUC restructuring efforts.

III. FOUR CRITICAL ROLES

This section summarizes work to be done in four critical areas: protecting and informing consumers,⁸⁵ promoting competition,⁸⁶ preserving and advancing universal service,⁸⁷ and encouraging access to advanced technologies.⁸⁸ The NARUC Telecommunications Committee's work, resolutions, research, and deliverable products generally fall within one of these four areas.

A. Consumer Protection Emerges as a Core Function

Within NARUC itself, each of the industry-specific standing committees has developed a consumer emphasis. This is especially true of the Telecommunications Committee. Moreover, and most significantly, NARUC has created a separate Consumer Affairs Committee to address consumer issues throughout all regulated industries. The relationship between

^{83.} See id. at 85–100.

^{84.} *Id.* at 101. State commission work on the recent "Y2K bug" is an example of the kind of flexibility Wirick urges. Under the leadership of Commissioner Leon Jacobs of Florida, states cooperated with one another, with federal agencies, and with regulated companies to devise a monitoring and compliance system across industries. This was an effort characterized by experimentation, use of non-adjudicatory processes, and a premium on collection and distribution of information. FCC Commissioner Michael Powell, the FCC's "Y2K Commissioner," exemplified the entrepreneurial zeal Wirick has in mind.

^{85.} See infra Part III.A.

^{86.} See infra Part III.B.

^{87.} See infra Part III.C.

^{88.} See infra Part III.D.

Telecommunications and Consumer Affairs is especially close and productive, and has resulted in customer-oriented products including:

(1) Web-available consumer education templates for each industry, which may be customized by state commissions.⁸⁹

(2) The "No Surprises" Package, which suggests principles for telecom education and information such as the use of plain, understandable language, protecting consumers from deceptive practices, and providing consumers clear information about rights and responsibilities.⁹⁰ In addition to use by states, the report was used by the FCC in developing its "Truth in Billing" docket.⁹¹

(3) The State and National Action Plan ("SNAP"), which creates a forum of state commission and FCC staff to work together on consumer education, enforcement, database development and other areas.⁹²

Service quality is an area of long-standing concern to state PUCs.⁹³ A variety of factors, such as rapid or inadequately-forecasted growth in demand and increased complexity, among others, have caused renewed concern with service quality over the past few years.⁹⁴ PUCs have addressed these concerns in a

907

^{89.} See, e.g., Telephone, Electric, and Water Options (visited Jan. 26, 2000) http://dit1.state.va.us/scc/naruc>. See also COMPENDIUM OF RESOURCES ON CONSUMER EDUCATION (Francine Sevel ed., Nat'l Reg. Res. Inst. Report No. 98-18, 1998), available at NRRI Download Research Web Site, supra note 18; FRANCINE SEVEL, AN ANALYSIS OF CRAMMING: STAKEHOLDER ACTIONS, POLICY RECOMMENDATIONS, AND RELATED RESOURCES (Nat'l Reg. Res. Inst. Report No. 99-12, 1999), available at NRRI Download Research Web Site, supra note 18.

^{90.} See National Association of Regulatory Utility Commissioners, Resolution Urging Support of Principles Promoting Consumer Awareness and Protection by Policy Makers Involved With Telecommunications Regulation (July 29, 1998), available at Summer Meetings 1998 Resolutions (visited Jan. 26, 2000) http://www.naruc.org/Resolutions/summer98.htm>.

^{91.} See Truth-in-Billing and Billing Format, 14 F.C.C.R. 7492 (1999).

^{92.} See National Association of Regulatory Utility Commissioners, Resolution Urging Support of State and National Action Plan (SNAP) for Consumers Strike Force Mission Statement, *available at Collocation* (visited Jan. 26, 2000) http://www.naruc.org/rescont.htm>.

^{93.} The NARUC Staff Subcommittee on Telephone Service Quality was established in 1972. *See tcomm* (visited Feb. 2, 2000) http://www.naruc.org/Committees/Telecommunications/T-com.htm.

^{94.} See MICHAEL CLEMENTS, QUALITY OF SERVICE AND MARKET IMPLICATIONS OF ASYMMETRIC STANDARDS IN TELECOMMUNICATIONS (Nat'l Reg. Res. Inst. Report No. 98-24, 1998), available at NRRI Download Research Web Site, supra note 18; see, e.g., VIVIAN WITKIND DAVIS ET AL., TELECOMMUNICATIONS SERVICE QUALITY (Nat'l Reg. Res. Inst. Report No. 96-11, 1996); RAYMOND W. LAWTON, SURVEY AND ANALYSIS OF THE

variety of ways, including monitoring, disclosure, target setting, coordination among states within a region,⁹⁵ and, when necessary, penalties. Promoting retail service quality is recognized as closely related to other customer-focused work, and it requires a combination of engineering, economic, and consumer affairs skills. Ultimately, customers may even be able to purchase a certain level of service quality, perhaps with a standardized offer as one of the choices, along with the opportunity to purchase better service quality at higher rates.

At the great majority of state commissions, consumer protection and education has become a primary emphasis, and a source of creativity. Many state commissions have been granted new statutory authority to compensate for and penalize consumer abuses. A 1998 NRRI report explained:

No area of commission change has been more pervasive than the movement toward educating consumers. Though the focus of this effort has largely been on creating mechanisms for informing consumers about competitive markets, it also has involved the development of information about consumer needs and preferences, the creation of two-way communications with consumers, a heightened awareness of the need to provide user-friendly service to consumers at all levels of the commission, with a particular emphasis on residential customers, and the recognition of the need for commissions to reposition themselves in the minds of the public.⁹⁶

Customer service jobs at state commissions are more challenging than ever, but they also have a higher profile, and carry greater responsibility. They have moved from the periphery of PUC work to the core, and they present vast opportunities for public service entreprenurialism. Given the trend

TELECOMMUNICATIONS QUALITY OF SERVICE PREFERENCES AND EXPERIENCES OF THE CUSTOMERS OF OHIO LOCAL TELEPHONE COMPANIES (Nat'l Reg. Res. Inst. Report No. 96-33, 1996).

^{95.} The Regional Oversight Committee for US West ("ROC") developed model Service Quality Standards, which were considered by state PUCs in revising their own standards. *See* Regional Oversight Committee for US West, Service Quality Standards (1995) (on file with the author).

^{96.} DAVID W. WIRICK ET AL., ORGANIZATIONAL TRANSFORMATION: ENSURING THE RELEVANCE OF PUBLIC UTILITY COMMISSIONS 5 (Nat'l Reg. Res. Inst. Report No. 98-06, 1998), *available at* NRRI Download Research Web Site, *supra* note 18.

909

lines for slamming,⁹⁷ cramming,⁹⁸ and service quality complaints (all of which have been increasing in recent years), these positions offer great job security.

The Montana Public Service Commission, for example, has long had good consumer protection rules covering the traditional areas of credit, termination, repairs, access to customer service centers, outages, and other matters. Over the last few years, the Montana commission has moved much more aggressively into monitoring service quality, customer outreach, and education. It has been given valuable new statutory tools to combat abuses such as slamming and cramming.⁹⁹ As a result of market changes and of the Montana Commission's more aggressive efforts, the total number of complaints received by the Montana PSC requiring some kind of active intervention more than tripled over four years to nearly 3,000 for 1998, and passed 3,000 for 1999 (Graph 1), a significant number for a state with fewer than 900,000 people.



2000]

^{97.} Slamming is defined here as changing a customer's service provider without the customer's permission, or obtaining permission deceptively. To date, slamming has been primarily a long-distance issue, but could become a concern in other areas as well. *See* FRANCINE SEVEL, AN ANALYSIS OF CRAMMING: STAKEHOLDER ACTION, POLICY RECOMMENDATIONS, AND RELATED RESOURCES 1 (Nat'l Reg. Res. Inst. Report No. 99-12, 1999), *available at* NRRI Download Research Web Site, *supra* note 18.

^{98.} Cramming is defined here as adding to a customer's bill charges for services the customer did not request.

^{99.} See MONT. CODE ANN. §§ 69-3-1301 (1997) (amended 1999), 69-3-1302 (1997), 69-3-1303, 1305 (1997) (amended 1999).

Graph 1. Montana PSC Informal Complaints from 1995 Through 1999 by Service Type.

The greatest growth in complaints received by the Montana PSC has been in telecommunications, including slamming. Cramming—that is, placing unauthorized charges onto a service invoice—was unheard of only several years ago, but it is now the fourth most common complaint (Graph 2).



Graph 2. Montana PSC 1999 Informal Complaints By Complaint Category.

Actions by the Montana legislature granting the commission greater authority to enforce consumer protections have contributed to these improvements. Over the past two legislative sessions, the Montana PSC received significant new powers, exceeding those available to the FCC at the federal level. The 1997 legislature gave the PSC new authority concerning slamming, including a prohibition on charging for slammed calls: the customer gets her money back.¹⁰⁰ Moreover, the 1999 legislature, for the first time, gave the PSC the authority to impose fines directly on slammers and crammers, rather than having to go to court to have fines imposed, and finally gave the PSC a way to terminate the worst abusers' operations in Montana.¹⁰¹ While complaints to the Montana PSC have skyrocketed, the number of slamming complaints received by the

^{100.} See MONT. CODE ANN. § 69-3-1305 (1997) (amended 1999).

^{101.} See id.

FCC that originated in Montana dropped to less than one hundred in 1998.¹⁰² In summary, market changes have caused an explosion in certain kinds of consumer problems. Together with expanded PSC authority and aggressive outreach by the PSC, these market changes have resulted in more consumer complaints to the PSC. However, customers have generally received better results for their meritorious claims.

A growing number of states now provide more robust remedies than are available at the federal level. The General Accounting Office recently issued a report documenting the vigorous anti-slamming and anti-cramming efforts by the FCC, the Federal Trade Commission ("FTC"), and especially by state commissions. By 1998, state commissions were handling 40,000 slamming complaints and 20,000 cramming complaints per year. State enforcement actions resulted in orders to pay \$27 million in restitution and penalties, and, since 1994, the FCC has ordered an additional \$17 million in penalties.¹⁰³ The GAO report understates the scope of state efforts, as commissions in states such as Montana received their strongest new powers during the 1999 legislative sessions.

At the federal level, NARUC has advocated an approach to consumer protection that builds on the cooperative federalism of the Telecommunications Act, the FCC-state PUC Magna Carta, and the State and National Action Plan. It seeks to enhance a consumer-oriented federal-state partnership, provide robust remedies, and resolve complaints close to the customer, with a minimum of administrative obstacles. NARUC has suggested the following elements in any federal legislation: (1) Preserving state enforcement of anti-slamming laws; (2) Eliminating subscriber liability for payment of any charges if the subscriber was slammed; (3) Penalizing carriers who engage in slamming; and (4) Establishing strict procedures for third-party verification of carrier change requests.¹⁰⁴

911

^{102.} Compared to 216 slamming complaints received by the FCC from Montana in 1997. Based on data provided by the FCC to Montana PSC staff (on file with the author).

^{103.} See General Accounting Office, Telecommunications: State and Federal Actions to Curb Slamming and Cramming 2-3 (1999).

^{104.} See Letter from Bob Rowe, Chairman, NARUC Telecommunications Committee, to John McCain, Chairman, Committee on Commerce, Science, and Transportation (May 13, 1999) (on file with the author).

The key to these initiatives will be close coordination between state commissions and the FCC. For example, some PUCs have advocated voluntary FCC-state commission agreements under which slamming complaints received at the federal level could be automatically transferred through a "hot link"¹⁰⁵ to participating state commissions for resolution under state law, with FCC rules setting minimum protections that states could exceed.¹⁰⁶ While this strategy has yet to be implemented, it demonstrates the advances that may be possible through a cooperative federalist approach.

B. Promoting Competition

Important competition-related work remains to be done with respect to a range of issues including, for example, implementing wholesale deaveraging,¹⁰⁷ creating appropriate ways to resolve complaints between carriers concerning provisioning of wholesale service (often described as "enforcement"), and finetuning other rules based both on experience and on new developments, such as the creation of Data Competitive Local Exchange Carriers ("DCLECs").¹⁰⁸ More generally, Robert Burns and his colleagues¹⁰⁹ argue that PUCs should embrace a form of market analysis drawing on antitrust economics, consumer protection, and trade practice law.¹¹⁰ In telecommunications,¹¹¹

^{105.} For example, a call received at a national toll free number could be automatically answered by the PUC in the state where the call originates. This would ensure the complainant receives the benefit of any state remedy that might be available. Resolving a disputed slamming complaint can be labor-intensive; for example, it might involve listening to a tape recording of an alleged authorization to determine whether it was deceptively obtained.

^{106.} See Letter from Bob Rowe, Chairman, NARUC Telecommunications Committee, to William Kennard, Chairman, Federal Communications Commission (Apr. 20, 1999) (on file with author); see also Letter from Bob Rowe, Chairman, NARUC Telecommunications Committee, to William Kennard, Chairman of the FCC (Sept. 1, 1999) (on file with author).

^{107.} Under FCC rules, states must deaverage wholesale rates charged by one carrier to another carrier into at least three different cost zones. See 47 C.F.R. § 51.507(f) (1999); Federal-State Joint Board on Universal Service, 14 F.C.C.R. 8078, 8139 (1999).

^{108.} Data CLECs are CLECs specializing in providing higher-speed data services, especially using digital subscriber loop technology over incumbent local exchange carriers loops.

^{109.} See ROBERT E. BURNS ET AL., MARKET ANALYSIS OF PUBLIC UTILITIES: THE NOW AND FUTURE ROLE OF STATE COMMISSIONS (Nat'l Reg. Res. Inst. Report No. 99-14, 1999), available at NRRI Download Research Web Site, supra note 18.

^{110.} See id.

this would involve a transition away from retail rate regulation toward market regulation, with PUCs becoming referees—setting rules of the game, imposing penalties, and protecting customers. Burns argues it is especially important to focus on "linchpin" networks as the telecommunications industry evolves toward a network of networks. He believes market analysis should be employed in merger and acquisition assessment, affiliate transaction review, examining interconnection arrangements, and even PUC Section 271¹¹² proceedings concerning RBOC authorization to provide in-region long distance service. According to Burns, policy issues concern developing appropriate levels of regulation, criteria for reducing dominant firm regulation, establishing codes of conduct, and conducting market analysis.

The corner piece in the section 271 jigsaw puzzle is in place: the FCC's decision to grant Bell Atlantic's application to provide service in New York state.¹¹³ That successful result was grounded in the work of the New York PSC over the preceding years. States such as New York, Texas, and Pennsylvania have provided tremendous leadership in their work implementing section 271. The structure of section 271 places an especial burden on state commissions to develop a record, and creates an opportunity for them to solve problems before a section 271 application is filed with the FCC. In the US West region, for example, many states are participating in an Operations Support System collaborative, designed to work through

913

^{111.} See id.

^{112.} Section 271 of the Telecommunications Act of 1996 provides that an RBOC may provide long distance service within its own territory (determined on a state-by-state basis) once it has met certain conditions, including a fourteen-point competitive checklist and a determination by the FCC that granting the RBOC's application is consistent with the public interest. The FCC must act on an application within ninety days after its filing. It must consult with the United States Department of Justice, giving the DOJ recommendation substantial but not preclusive weight. It must also consult with the PUC for the state that is the subject of the application. In practice, the RBOC typically files its proposal with the state PUC well in advance of a filing with the FCC, and files with the FCC only after the PUC has endorsed the application. *See* Telecommunications Act of 1996 § 271, 47 U.S.C. § 271 (Supp. III 1997).

^{113.} See Bell Atlantic New York, Rel. No. DA 99-3015, CC Docket No. 99-295 (Dec. 27, 1999). AT&T and Covad Communications appealed to the US Court of Appeals for a stay of the FCC order. See AT&T v. FCC, No. 99-1538 (D.C. Cir. 2000); Lisa I. Fried, FCC Ruling: Circuit Court Review to Decide for Whom Bells Toll, N.Y.L.J., Jan. 6, 2000, at 5. The AT&T and Covad cases were consolidated by the D.C. Circuit, and the stay was denied on Jan. 4, 2000. See Covad Communications v. FCC, No. 99-1540 (D.C. Cir. 2000).

the most difficult "competitive checklist" issues in an open, problem-solving approach involving both US West and potential wholesale customers.¹¹⁴

C. Preserving and Advancing Universal Service

The goal of providing universal service to United States citizens presents special challenges to regulators striving to balance competition with customer interests. Regulators must consider whether universal service is itself antithetical to competition, or perhaps a necessary quid pro quo for the Telecommunications Act's competition provisions. Alternatively, one might view universal service as one of the "twin pillars" of telecommunications policy. Or, structured properly, universal service might be used as a tool to extend the benefits of competition to more customers and more regions.¹¹⁵

The Telecommunications Act, in Section 254, set ambitious goals for universal service, expanding its scope to include the "demand pull"¹¹⁶ of rural health care, libraries and schools, and raising the bar to require "reasonable comparability" of rural and urban rates and service, including access to advanced service, and declaring that universal service is an evolving concept. For the non-rural fund (supporting companies with over 100,000 access lines, including RBOCs) the FCC's Fall 1999 orders¹¹⁷ set a framework for providing support to larger compa-

^{114.} Information about this collaborative is available on the National Regulatory Research Institute web page. See ROC OSS Repository (visited Jan. 26, 2000) http://www.nrri.ohio-state.edu/oss.htm; see also Resolution Encouraging Regional Collaborative Independent Third Party Testing of RBOC OSS, available at NARUC Summer Committee Meetings Westin St (visited Jan. 26, 2000) http://www.naruc.org/Resolutions/summer99.htm. Regional OSS collaboratives were suggested by Bob Rowe. See Bob Rowe, Let's Work Together to Resolve Bell Operating Company Long Distance Entry, 20 NRRI Q. BULL. 53 (1999). State-to-state cooperation within regions is a topic of growing importance in both telecommunications and energy. It presents problems of information flow, coordination, and authority in some respects analogous to international law.

^{115.} The author's views on high cost fund support are more fully set out in Bob Rowe et al., *Universal Service: The Case for Rural America*, PUB. UTILS. FORTNIGHTLY, July 15, 1999, at 48.

^{116.} Supporting these uses will generate additional demand for higher capacity services, which may in turn stimulate the deployment of additional facilities.

^{117.} See Federal-State Joint Board on Universal Service, Rel. No. FCC 99-304, CC Docket No. 96-45 (Nov. 2, 1999).

915

nies serving high-cost areas, which may be revised through reconsideration or appeal. $^{\rm 118}$

To date, there is much less controversy concerning the importance of "getting it right" for the small cooperatives and companies, which generally provide first-rate service to the most rural areas. So far, the Rural Task Force, which will make recommendations to the Universal Service Joint Board next fall, has been exemplary in moving beyond position-based advocacy to try to do the right thing for rural America.¹¹⁹ The Rural Task Force plans to issue a series of reports identifying the unique characteristics of small companies and strategies to provide high-cost support without harming service to rural telecom customers.

As recognized in the Act, universal service implicates important national and state policies. Many states have implemented intra-state universal service funds.¹²⁰ States generally view universal service as a key tool to mitigate any deleterious effects on retail customers of, for example, wholesale rate deaveraging or erosion of implicit support.¹²¹ Universal service is

^{118.} See US West Communications, Inc. v. FCC, No. 99-9546 (10th Cir. 1999). This case was reactivated in the 10th Circuit on Mar. 15, 2000, but no final order had been issued as of publication time. At the time of this writing, the Wyoming commission has filed for reconsideration, but the filing has not yet been noticed. Questions concerning the FCC's orders have included whether specific inputs to the economic cost model are correct, whether the model itself is sufficiently able to estimate the cost of providing service, and whether the policies (the "methodology") which are applied to the model's outputs are in compliance with § 254.

^{119.} See Rural Task Force Home Page (visited Jan. 24, 2000) <http://www. wutc.wa.gov/rtf>. The Rural Task Force was established by the FCC. It is chaired by Washington State Commissioner Bill Gillis, and includes various industry, consumer, and rural representatives. The Universal Service Joint Board includes three FCC commissioners, four state commissioners, and one consumer advocate, along with substantial staff support. The Joint Board conducts proceedings on issues which are referred to it by the FCC pursuant to § 254, and makes formal recommendations to the FCC, which are in turn the subject of FCC proceedings and eventual action.

^{120.} See EDWIN A. ROSENBERG & JOHN D. WILHELM, STATE UNIVERSAL SERVICE FUNDING AND POLICY: AN OVERVIEW AND SURVEY (Nat'l Reg. Res. Inst. Report No. 98-20, 1998), available at NRRI Download Research Web Site, supra note 18.

^{121.} Supports used to keep basic local rates affordable include relatively higher business rates than residential rates; averaging of rural and urban rates to keep rural rates lower than would otherwise be the case; a portion of the charges paid by long distance companies for their use of the local phone network to reach customers; and charges paid by users of vertical services such as call waiting and caller identification. Over time, competition is expected to erode many of these

also one of the few areas where state interests tend to diverge between higher-average cost and lower-average cost states.¹²² However, NARUC did adopt a set of principles to guide implementation of the Section 254 universal service mandate.¹²³

It is unlikely that, in the foreseeable future, universal service expectations will completely vanish, given the expanded scope of universal service in Section 254, the irreducible cost differences regardless of technology deployed, and, as suggested by Professor Eli Noam, the expanding nature of societal expectations coupled with the centrality of telecommunications infrastructure to economic and social structures.¹²⁴ It is

123. See National Association of Regulatory Utility Commissioners, Resolution Regarding Implementation of Universal Service High Cost Funding (Nov. 12, 1997). See also National Association of Regulatory Utility Commissioners, Resolution to Support Alternatives to the Federal High Cost Support Mechanism Announced by the FCC in its May 8, 1997 Universal Service Order (Nov. 12, 1997) (on file with the author); National Association of Regulatory Utility Commissioners, Resolution on Definition of Voice Grade Service for Universal Service Purposes, available at Winter Meetings 1998 Resolutions (visited Jan. 24, 2000) http://www.naruc.org/Resolutions/winter98.htm; National Association of Regulatory Utility Commissioners, Resolution Supporting Access to Advanced Communications for Schools and Libraries and Rural Health Care Providers and Use of the Telephone Excise Tax to Fund These Programs (adopted July 29, 1998), available at Summer Meetings 1998 Resolutions, supra note 90; National Association of Regulatory Utility Commissioners, Resolution on the Universal Service Rural Health Care Program, available at NARUC Summer Committee Meetings Westin St, supra note 114; Rowe, supra note 115, at 48.

124. See Eli M. Noam, The Future of Telecommunications, The Future of Telecommunications Regulation, 20 NRRI Q. BULL. 17 (1999). Noam writes:

Many people believe that somehow the efficiency of competition will shrink the subsidy slice of the pie to zero. But that assumes that the definition of the pie does not grow over time. Yet with telecommunications becoming ever more important, not having full connectivity to the new and powerful means of communication becomes a major disadvantage. That is why we now hear about helping the information poor, those beyond the digital divide, the fourth world, the schools and hospitals,

implicit supports, causing concern that they be replaced with explicit support such as universal service. Various economists, consumer advocates and industry representatives take sometimes wildly differing views of what approaches are the most economically efficient or fair. Economic subsidies are said to exist when the price charged for a service does not cover the marginal cost of providing the service. Subsidies are a subset of implicit support.

^{122.} Virtually all states have a mixture of higher-cost and lower-cost areas. Some states may have significant high-cost rural areas, but have even more substantial lower-cost urban areas, making them, on average, lower-cost states, and, as a result, net payors into national universal service support mechanisms. As a result of factors including density (dirt between customers) and geography (dirt piled into mountains) other states have average costs that are higher, sometimes much higher, than the national average.

equally unlikely that over the short and medium term—when some but not all variables are subject to change—competition or new technology will result in significantly diminished demand for universal service support.

D. Promoting Access to Advanced Capabilities

Section 706 of the Telecommunications Act of 1996 directs both the FCC and state commissions to promote access to advanced telecommunications capabilities.¹²⁵ NARUC has described Section 706 as an invitation to "grab the brass ring" rather than "pick low level fruit."¹²⁶ In August, NARUC submitted to the FCC a detailed proposal for a Federal-State Joint Conference on Section 706.¹²⁷ Last fall, the FCC created the Joint Conference, which is now undertaking a series of regional field hearings and pursuing other efforts.¹²⁸ State commissions are undertaking a variety of strategies to promote technology deployment, often working closely with other units of government, with the private sector and with non-governmental organizations.

125. Section 706(a) provides:

Telecommunications Act of 1996 § 706(a), 47 U.S.C. § 157 (Supp. III 1997).

126. See National Association of Regulatory Utility Commissioners, Resolution Regarding Petitions To The FCC For Action Under Sec. 706, available at Winter Meetings 1998 Resolutions, supra note 123.

127. See National Association of Regulatory Utility Commissioners, Resolution Endorsing a Federal-State Joint Conference on Advanced Services, available at NARUC Summer Committee Meetings Westin St, supra note 114.

128. See Federal-State Joint Conference on Advanced Telecommunications Services, Rel. No. FCC 99-293, CC Docket No. 99-294, (Oct. 8, 1999). The Joint Conference web page is available at *Federal-State Joint Conference on Advanced* Services (last modified Mar. 3, 2000) http://www.fcc.gov/Jointconference>. State opportunities to implement Section 706 are described in more detail in Rowe, supra note 78.

917

and that is why we will, inevitably, expand our definition of what is being spread throughout society.

Id. at 19.

IN GENERAL.—The Commission and each State commission with regulatory jurisdiction . . . shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans (including, in particular, elementary and secondary schools and classrooms) by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition . . . [or] . . . that remove barriers to infrastructure investment.

CONCLUSION—THE IMPORTANCE OF CITIZEN ENGAGEMENT

As is true for many other public and private sector entities, regulatory commissions must change, and often change quickly, or risk becoming irrelevant or even becoming obstacles to needed developments. This is of particular concern due to the crucial role of networked industries in our economic and social life. Every actor in this arena has a particular responsibility. Policy makers and implementers must know when it is time to let go of functions that are no longer needed, and at the same time preserve and adapt what is useful. Regulators and other stakeholders, especially consumers, should more thoughtfully discuss what conditions would allow elimination of various requirements. Regulatory agencies must also have the legal ability to let go, the authority to forbear.¹²⁹

A useful decision tree, through which many of the topics in this article could be evaluated, would be:

- (1) What values underlie the work?
- (2) What needs to be done (objectives)?
- (3) How should it be done, most consistently with the underlying values?
- (4) Who should do what needs to be done?
- (5) How will we know when we don't need to do something any more, do less of it, or do it differently?

With these considerations in mind, this article summarized several of the factors driving change in network industries and regulation. It suggested that regulatory agencies are among the primary proponents of substantive policy change and are frequent advocates of workable competition. It outlined some of the efforts to reform the process of regulation even as the substance is restructured, and it suggested specific areas where important work remains to be done, including consumer protection and education. Competition, universal service, and technology remain important areas for PUC involvement.

It may be objected that some of these functions could be accomplished elsewhere, perhaps by other agencies or even through the operation of common law,¹³⁰ and in specific instances this may be appropriate. However, premature disman-

^{129.} See Mont. Code Ann. § 69-3-910 (1999), granting authority to forbear from regulation of small telephone companies similar to the authority granted the FCC in § 10 of the Telecommunications Act.

^{130.} See HUBER, supra note 29, at 7–9.

919

tling of regulatory agencies, in contrast with measured reform, risks losing the significant benefits these structures provide, and also raises important citizenship concerns.

PUCs are uniquely engaged with a range of network industries, each affected with fundamental public interests. The ability to work in-depth across industries produces ordinary, static efficiencies associated with using the same resources to work in each of these different sectors. It also produces dynamic efficiencies associated with comparing approaches and applying lessons learned in one industry to work in others. For example, PUCs apply what they learn in telecommunications to energy restructuring.

There is tremendous value in integrating a variety of functions associated with one industry, including economic analysis, engineering and technical work, and consumer-related functions. Each of the disciplines informs the others. Welldesigned consumer protection programs provide economists with critical information about the development of markets and about failure within those markets. Economists, in turn, provide consumer protection specialists useful information about how information may best be provided to reduce these failures. In sum, there are cross-industry and cross-discipline benefits from the combination of resources and authority that resides in PUCs. The challenge is to capture these benefits creatively, flexibly, and efficiently.

Equally fundamental matters involve access to and participation in government, and the transparency of governmental action. These directly affect public confidence in government.

Commercial or consumer values concern all aspects of the provision of goods and services: information before the purchase, price and other terms at purchase, remedies and the ongoing customer relationship after the purchase. Commerce is governed by rules on a continuum, from common law, to statutes including the Uniform Commercial Code and unfair trade practices laws, to industry-specific regulation and rate-base rate of return adjudication. As developed in this article, the focus is now moving toward more flexible, less prescriptive approaches to rule setting. The effort to craft thoughtful and balanced rules of electronic commerce is an exciting endeavor, and is a positive example of how important rule setting can be to support the growth of robust markets, taking each of these

2000]

sources of law into account. The chaos and mistrust characteristic of some foreign markets that lack transparent, publicly accepted rules is a negative example. Last December's demonstrations at the World Trade Organization meeting in Seattle are at least a reminder, at the international level, of the importance of transparency and accessible processes, even as we work hard to open markets and expand competition.¹³¹

Citizenship values concern how we view our responsibilities to and our relationships with our fellow citizens, whether through government, the private sector, or through our celebrated American "voluntary associations."¹³² One school of public sector ethics focuses not on prohibitions or rules of conduct, but instead draws on the American Founders and political traditions to describe an "ethics of citizenship."¹³³ It is within this context that economic regulation should be reformed.

^{131.} See Paul Schell, What a Week (visited Feb. 16, 2000) <http://cityofseattle.net/wto/sm_120699.htm>.

^{132.} See 2 ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA (Phillips Bradley ed., Alfred A. Knopf 1984) (1835).

There is only one country on the face of the earth where the citizens enjoy unlimited freedom of association for political purposes. This same country is the only one in the world where the continual exercise of the right of association has been introduced into civil life and where all the advantages which civilization can confer are produced by means of it. *Id.* at 115.

^{133.} See TERRY L. COOPER, AN ETHIC OF CITIZENSHIP FOR PUBLIC ADMINISTRATION (1991). Cooper notes the challenges of active citizenship in a large and complex polity, and the challenges posed to the concept by interest group theory. Nonetheless, he challenges the Wilsonian view that government administration should be removed from "meddlesome" citizens. See id. at 2 (quoting Woodrow Wilson). He argues for an ethics grounded in, among other sources, Locke, Puritan settlers, Federalists and Anti-federalists, and the Jeffersonian concept of republican virtue. Based on this, he advocates "the public administrator as virtuous citizen," with various affirmative obligations. Id. at ch.5.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 18

The Eastern Caribbean Telecommunications Regulatory Authority: ECTEL

D. De Freitas, OECS Project, ECTEL

THE EASTERN CARIBBEAN TELECOMMUNICATIONS REGULATORY AUTHORITY: ECTEL

EXECUTIVE SUMMARY.

The Governments of the OECS having reviewed the available options for economic development concluded that there was need for diversification of their economies. The services sector was targeted as the motor for this diversification and it was decided that in order to facilitate this, there was need to reform the telecommunications sector.

The project started from a review of the sector, evolved as a World Bank funded project of US\$10.2 million and now today there is a process with new legislation and the imminent formation of a regional regulatory body.

The review of the telecommunications sector included the existing legislation and tariffs along with an analysis of the existing licenses, agreements and the rights/privileges of the existing license holders.

This paper shows how the OECS Telecommunications Reform Project, acting on the mandate of the Heads of Government, is well on the way towards:

achieving the development of a regional regulatory framework,

carrying out cost analysis and developing cost oriented tariffs,

effectively managing the electromagnetic spectrum,

carrying out a technical assessment of the capabilities and potential of the network and

developing of a trained skills base for Informatics.

It is important to note in the report that the involvement of the OECS as an organization is critical in the reform process. The reform and innovation that the reform of the sector entails can more efficiently and effectively be dealt with and applied in a regional framework.

The reform process has been driven by economic and political necessities and has seen success through development of a unique model of a regional regulator. The process has been guided by the development of regional telecommunication policy and strategy through a consultative process.

Model legislation has been harmonised for the five participating countries and a common set of regulations is now being developed.

A blend of independence for the regional regulatory boy has been coupled with the need for respecting the sovereignty of the participating nations. The formula adopted has been by assigning responsibility for the creation of the regulatory framework top the regional body and leaving the implementation to the national bodies. The regional body would:

- devise the application forms;
- authorise the tender procedures;
- determine fees and tariffs;
- recommend directions to licensees and frequency authorisation holders;
- advise on the Universal Fund;
- promote competition between telecommunications providers;
- promote the research;
- development and introduction of new telecommunications services and telecommunications technology;
- encourage local investment in telecommunications;
- safeguard the public interest and national security;
- develop human resources through training and transfer of technology; and settle disputes between licencees

The process ensures that in establishing a liberalised environment new legislation is produced with accompanying regulation and the necessary regulatory instruments and bodies created.

In order to create the investor friendly climate the countries have engaged the incumbent provider in negotiations. While the liberalisation is not subject to these negotiations the OECS countries consider it important that the route of negotiations be preferred to litigation.

Of the lessons learned from the process thus far high on the agenda should be the need for clear policy, involvement at the top political level and ensuring involvement of all the stakeholders. The OECS

telecommunications reform process has registered its major successes due to the aforementioned reasons.

The liberalisation of the sector will bring the expected benefits of increased economic opportunities and with it a set of issues related to liberalisation. The OECS will be now using a shock liberalisation approach and for this reason it would be a trying period.

In concluding the Project will now be addressing a set of follow up issues to ensure that the platform now being created is used to propel the envisaged economic development.

The OECS welcomes the opportunity to share its experience with the world and would be amenable to providing further information for interested persons.

Thank you.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1. HISTORY (i) (ii) (iii) (iv)	Modifying the Caribbean image Organisation of Eastern Caribbean States Small island economic realities Why telecommunications reform	Page 5
2. POLITICAL PROCESS		Page 7
(i)	OECS Authority	8
(ii)	Loan negotiations	
(iii)	Policy and strategy	
3. THE PROJECT		Page 8
(i)	Objective	
(ii)	Project Management Unit transition	
(iii)	ECTEL	
(iv)	Project's uniqueness	
(v)	Components	
4. LEGISLATION		Page 11
(i)	Policy formulation	0
(ii)	Consultative process	
(iii)	Model legislation	
(iv)	Liberalisation schedule	
5. REGULATION		Page 14
(i)	Regulatory structure	
(ii)	Licensing process	
(iii)	Proposed environment	
6. NEGOTIATIONS		Page 15
(i)	Investor confidence	
(ii)	OECS position	
(iii)	Negotiation framework	

8. LESSONS LEARNED

Page 16

- (i) Stakeholder ownership
- (ii) Political commitment
- (iii) Building networks

9. CONCLUSION

- (i) Economic opportunities
- (ii) Liberalisation issues
- (iii) Follow up

Page.17

1. HISTORY

i. Modifying the Caribbean image

The mention of the Caribbean normally conjures up in the minds of the listener or reader, island paradises with bright sun, palm trees swaying in the cool breeze and white sandy beaches liberally sprinkled with tropical beauties in revealing beach wear. Our tourism campaigns have been successful perhaps too much so! Some education may therefore be necessary so as to disabuse you of the notion of sunny island paradises with only smiling beauties. The Organisation of Eastern Caribbean States, (OECS) wishes to draw your attention to our small island states buffeted by the impact of decisions taken in small green rooms. Decisions that overnight remove the base of our economic development. Small island states striving to define their space in a New World order, where we see reflections of old forms of domination.

This paper is not to provide a list of our woes but rather to present our plan and strategy as a response to the changing world economic environment. It is in the context of the changing world economic environment that the project to

reform the telecommunications sector was conceived. In order to understand the achievement of the Eastern Caribbean States in establishing a new regulatory environment for telecommunications we would need to provide an explanation of the existing political structure and the administrative environment in which the OECS operates.

ii. Organisation of Eastern Caribbean States

The Organisation of Eastern Caribbean States (OECS) came into being on June 18th 1981, when seven Eastern Caribbean countries signed a treaty agreeing to cooperate with each other and promote unity and solidarity among members. The OECS is now a nine member grouping comprising Antigua and Barbuda, Commonwealth of Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia and St. Vincent and the Grenadines. Anguilla and the British Virgin Islands are Associate Members of the OECS.

The Secretariat is headquartered at the Morne in Castries St. Lucia and headed by a Director General Mr. Swinburne Lestrade. The OECS receives it mandate from the Heads of Government, the Authority, who meet at least once a year with the Chairmanship rotating between countries.

The Secretariat has four directors each with responsibility for; Functional Cooperation; External Relations; Corporate Services and Economic Affairs. There are several units including;

Natural Resource management Unit (NRMU);

Solid Waste Management Project (SWMP);

OECS Education Reform Unit (OERU);

Technical & Vocational Education & Training Project (TVET); Eastern Caribbean Drug Service (ECDS); Export Development & Agricultural Diversification Unit (EDADU); Eastern

Caribbean Investment Promotion Services (ECIPS); Directorate of Civil Aviation (DCA)

The OECS also has diplomatic missions in Brussels and Ottawa. (*Additional information on the OECS is available at their web site* <u>www.oecs.org</u>)

ii. Small island economic realities

The present position in the OECS is characterised by a telecommunications sector dominated by a single exclusive provider. Service is provided in the context of outdated laws, licenses and agreements. Existing tariffs are not based on costs. Regulation is currently carried out by overworked and understaffed units within the Ministries of Communications and Works. The situation is complicated by having different Ministries, often with limited coordination, share different aspects of regulation-often the case in the Broadcasting sector.

iii. Why telecommunications reform

A review of the telecommunications sector in the OECS would identify the following deficiencies:

- laws, licenses and agreements that were outdated and restrictive;
- exclusive provision of all main services within the sector, such as the public switched telephone network and cellular radio, by the incumbent provider;
- unbalanced tariffs that were not cost based and that allowed for excessive profit margins on certain service types;
- limited availability of new services. For example, there was no packet switched service for business;
- a quality of service that was often well below the expected average.

The logic for the need for reform would then become obvious. Five countries in the OECS have joined together in the process of telecommunications reform and have obtained a loan from the World Bank for US \$6 million and put up \$4 million in counterpart funds The countries involved in the reform project have decided that they will ensure the participation of all the stakeholders in the process. It is for this reason that

OECS adopted a process of national consultation on all major issues. The development of policy and the drafting of legislation have all been done through broad consultation involving all stakeholders.

2. POLITICAL PROCESS

i. OECS Authority

The Heads of Government meeting as the Authority agreed that economic diversity would be a necessity if the economies of the region were to develop. The future economies of the region would be based on a platform of a new telecommunications environment where services would be provided on a competitive basis ands a regional regulatory body would be established. This is the basis of the OECS Telecommunications reform project and the genesis of ECTEL.

The Authority decided that:

- a) The economies of the OECS countries needed to be diversified away from a mono-crop agricultural base.
- b) The focus would be placed on telecommunications as the sector that would provide the platform for the new economy.
- c) The telecommunications sector would have to be reformed to fulfill its role as the driver of the new economy.
- d) The OECS Secretariat would be charged with the responsibility for the implementation of the reform process.

ii. Loan negotiations

A six million US dollar loan was negotiated with the World Bank and this was supplemented by four million US dollars in countries counterpart funds. The Loan was divided equally between the five participating countries and a separate Project Agreement was signed to allow the OECS Secretariat administrative responsibility for project administration.

iii. Policy and strategy

The success of the OECS Telecommunications reform project thus far could be attributed to the early development of a clear policy and strategy, involvement of the various stakeholders and the high level of commitment from the political directorate.

The policy and strategy was produced through a series of national and regional consultations. The consultations were conducted using a discussion paper that was circulated then discussion with focus groups that culminated in national consultations. Regional consultations were then organised to harmonise the final strategic and policy paper for submission and adoption by national Parliament.

3. THE PROJECT

i. **Objective**

The objective of the project is ". To Introduce pro-competitive reforms in the telecommunications sector in order to position Telecommunications as the motor for economic development. ". Increase the supply of informatics-related skills in the five OECS borrowing countries." "... an independent regional regulatory authority is to be established and new sector legislation is to be passed in each country" '... address the high cost for telecomm services and lack of trained personnel in this area.

The project is for the reform of the sector, the introduction of pro-competitive reforms and the enhancing of the informatics skills in the member countries. The mission statement of the countries could be stated as being:

...The Governments of the member countries aim to ensure that the demand for existing telecommunications services is met in order to support economic growth and diversification, provide a suitable environment for tourism, informatics and financial sectors, and satisfy the educational and social needs of the community. the Governments will endeavor to develop the telecommunications infrastructure and services providing a liberalized and competitive environment with open entry to stimulate the introduction of an increased range of services using state of the art technology.

ii. Project Management Unit transition

The Project management Unit was established to implement the Project and its mandate was, to:

Establish a Regional Regulatory Body

Create and introduce a new regulatory framework for a competitive environment.

Conduct a review of the use and management of the

electromagnetic spectrum and provide a framework for the efficient management of the spectrum, and

Facilitate the development of informatics related skills

The most critical function of the PMU however would prove to be the transition of itself into the new regulatory body ECTEL.

The establishment of ECTEL will necessitate enhancements to the efficiency of financial management processes and the soundness of internal controls. With this in mind, the need was identified for the contracting of a firm or qualified consultant(s) to assist ECTEL in establishing appropriate financial management systems for the new entity. A critical component of the new internal control arrangement will be the transition of oversight from the OECS Secretariat (and eventually from the Bank as well) to the new ECTEL corporate governance structure.

iii. ECTEL.

ECTEL is a regional body established to provide legal and technical advice to member states on all matters relating to Telecommunications. This was done by

Treaty on May 4th, 2000 through the signature of the Heads of Governments of the five participating states; Commonwealth of Dominica; Grenada; St. Kitts/Nevis: St. Lucia and St. Vincent & the Grenadines ECTEL will also be responsible, in conjunction with member states, for the management of the electromagnetic spectrum and the numbering resource. ECTEL will assist in setting tariffs, rates and regulations for the sector. License will be classified as individual and class licenses. Class licenses will be those of a general nature where those applicants meet pre-established criteria and these would include all of the so-called value added services. Licenses for mobile telephony, international service and domestic telephony will be treated as individual licenses. License applications will be made to member countries and individual license applications will be forwarded to ECTEL for review and recommendation. A positive recommendation from ECTEL will be a necessary but not sufficient condition for the award of a license. Countries will have to establish their own national commissions to review and advise on class licenses.

The new laws and sector policies proposed by the OECS and implemented by project countries lay out plans to move toward divesting from telecommunications entities and independent pro-competitive regulation for all sectors of telecommunications and related value-added services coordinated and advised by ECTEL. In particular, the regulator(s) will seek to:

- Collect appropriate fees for spectrum usage and regulatory costs
- Ensure license holders adhere to conditions
- Ensure cost-related tariffs and prevent cross subsidy
- Prevent abuse by dominant operators (especially over interconnection)
- Approve equipment and set technical standards
- Liberalize leased line provision, value added services, customer premise equipment and private networks
- Publish timely information on quality and cost of services
- Ensure free and simple access to emergency services The headquarters of ECTEL will be in St Lucia. ECTEL's powers and responsibilities under the treaty include:
- Advisory and coordination roles with the contracting states and with other states and international bodies regarding telecommunications
- Recommending to states regional policies on issues including universal service, interconnection, numbering and pricing, forms and areas of licensing and frequency authorization, methods of standardizing applications procedures, cost-based pricing regimes
- Recommending license terms and conditions, systems of frequency authorization management, license fee structures, technical standards and procedures for approval of equipment, management systems for and operation of universal service funds
- Designing and operating open tender proceedings for individual licenses as requested
- Review all individual license applications made in contracting states

- Maintaining a harmonized regional radio spectrum plan and manage radio spectrum and frequency authorization
- Mediating or issuing opinions on disputes between licensees
- Monitoring in collaboration with states, license effectiveness Recommendations are to be implemented by member states 'whenever practicable.'

iv. Project's uniqueness

The project involves five sovereign independent states and is in unique in that for the first time independent states will give up some sovereignty in the establishment of a regional regulatory body.

A policy has been developed through a consultative process involving all the stakeholders. This policy has served as the guide for the development of new legislation, which is in the final phase of drafting.

v. Components

A Project Implementation Unit (PMU) has been established in the OECS Secretariat with the objectives of: (i) assisting the OECS in the management of the project; (ii) ensuring compliance with Project accounting, financial reporting and auditing requirements; and (iii) supervising specialized consulting firms. When the regional telecommunications authority is established under the Project, the PMU's responsibilities, services, staff and goods are to be transferred to the authority. A Project Implementation Committee (PIC), which includes officials from each of the participating countries and regional officials, was set up to monitor compliance with policy guidelines and with the Project Agreement.

• ECTEL is in the process of developing from a legal entity into a functioning institution. It is designed to promote liberalization and fair competition, harmonization of regulations and policies across member states, universal service, fair pricing, access to advanced services and overall sector development.

4. LEGISLATION

i. Policy formulation

The countries embarked on a process of policy and strategy formulation so as to provide the basis for development of appropriate legislation. the draft policy identified the issues for consideration and provided the available option for dealing with the issues.

In the case of the OECS as in other countries the key issues were:

Interconnection – making it mandatory and using reference interconnect offers.

Numbering – a resource previously controlled to a large extent by the incumbent.

Universal service obligations – previously little or no build out obligations by the provider and the need for compulsory conditions in the licenses and

Spectrum management – the need for providing clean spectrum for new entrants.

ii. Consultative process

Critically important in the OECS telecommunications reform was the consultative process applied. At all levels there was consultation.

In developing the process there was a high level of consultation at the top political level. In determining policy and strategy there was wide consultation among all of the stakeholders. Discussion documents were prepared and distributed. Focussed discussion held with special interest groups. National consultations followed and led to regional consultations. Experts in selected areas were used to facilitate discussions and top level political involvement was had at all stages.

The process led to stakeholder ownership of the process and a raising of the level of understanding of the issues involved.

iii. Model legislation

A model legislation whose purpose is to establish a regulatory regime to implement obligations and purposes of the countries signatory to the Treaty establishing the Eastern Caribbean Telecommunications Authority. In that Treaty Heads of Government of certain states in the Caribbean have recognised that a harmonised approach in the region for the management of telecommunications is in the best interests of the development of the region. The purpose of the Treaty , *inter alia*, is to promote open competition in telecommunications, harmonised policies on a regional level for telecommunications, a universal service, fair pricing and the use of cost-based pricing methods by telecommunications providers. The Treaty seeks to achieve these objectives by establishing a monitoring body to be known as the Eastern Caribbean Telecommunications Authority (ECTEL). This body will not only advise on appropriate technical matters but also recommend to Contracting States a harmonised legal regime relevant to current realities of telecommunications.

The Bill seeks to provide for the regulation of telecommunications

and for that purpose to establish a National Telecommunications Regulatory Commission.

The Bill is divided into seven parts.

Part I - Deals with matters of a preliminary nature, that is, short title, interpretation, and the telecommunications services to which the Act shall not apply. It also provides that the principal object of the Bill is to give effect to the purposes of the Treaty and obligations of this country under the Treaty.

Part II- This Part establishes the National Telecommunications Regulatory Commission (the Commission) to be subject to the direction and control of the Minister responsible for telecommunications **Part III** – The Bill prohibits the operation of a telecommunications

network or a telecommunications service without a licence. Under this Part, unless otherwise exempted, a person who wishes to engage in providing telecommunications services shall first obtain a licence. There are to be two categories of licences, namely, an individual licence and a class licence.

Part IV - This part deals with the provision of universal service, interconnection and infrastructure sharing. Under this part, any telecommunications provider may, on the recommendation of the Commission and after the Commission has consulted ECTEL, be required by the Minister to provide universal service to any person, whom the Minister may specify in an Order.

Part V - As the Commission is responsible for monitoring compliance with the Act, this Part establishes the appropriate administrative machinery

Part VI – Offences. This Part lists generally in prohibitory form offences under the Act. These would include connection of terminal equipment to a public telecommunications network without the approval of the Commission, use of equipment that creates electrical interference, unlawful interception of communications or disclosure of personal information

Part VII – Miscellaneous. This Part provides for stoppage of a message, which appears dangerous to the security of the country or contrary to public order or decency. This Part deals with issues of copyright, liability of private and public officials, installation and operation of telecommunications by diplomatic missions. Provision is made for the making of regulations by the Minister to give effect to the Act.

iv. Liberalisation schedule

The OECS countries driven by harsh economic necessity have decided to opt for shock liberalisation. Their schedule would to a large extent be guided by the administrative capacity of the OECS states. The present schedule is for legislation to be assented to by mid November. This would then mean that all-existing license holders to come in line within six months. This gives the outside date of March 31st as the date for full liberalisation. All participating countries have passed the model legislation, the regulation will be ready for January 2001 and ECTEL has been launched. We are ready!

5. REGULATION

i. Regulatory structure

The twenty-four pieces of legislation required by the legislation will be completed by late December. The first pieces however will be ready for late November and would include those dealing with license application forms, numbering and interconnection.

One of the critical issues in liberalisation would be interconnection. ECTEL has in the model legislation that was passed in all member countries made interconnection on the part of the incumbent telecommunications provider mandatory. The legislation now currently being drafted provides the mechanics for the interconnection to be realised.

The approach to be adopted would be to use what is known in the industry as the Reference Interconnect Offer (RIO), the incumbent would make its reference offer as a basis for commercial negotiations. The final interconnect agreement would then be subject to regulatory approval so as to prevent the incumbent using market power to force a one-sided agreement.

Numbering would also be critical in liberalisation and it would appear that Cable and Wireless are in the process of hoarding numbers in a sort of preemptive strike to have competitive advantage. Countries need to assume ownership and control of their numbering resource.

ii. Licensing process

The licensing process will be to classify the licenses in two types. All license applications will be on the relevant form and will be forwarded to the country in which the applicant wishes to operate. The individual licenses will be forwarded to ECTEL for a recommendation. The recommendation of ECTEL would be a necessary but not sufficient condition for a license.

It is envisaged that there may be cases where an applicant would wish to operate in all of the participating states and the process is being designed to facilitate this.

iii. Proposed environment

The major question regarding the proposed environment has not yet been completely defined. It is certain that it would be a competitive environment that would have a transparent and fair regulatory structure. The OECS is also defining the optimum number of market entrants for specific services.

Whether there would be auctions or beauty contests or even tenders for some of the services are yet to be decided.

A clear definition of this environment would be presented in late January 2001 to potential investors by way of an investors symposium in the OECS.

6. NEGOTIATIONS

i. Investor confidence

The governments will encourage investments in the sector from all appropriate sources by developing an enabling legal and regulatory framework, making it possible for the public and business users to obtain telecommunications services at fair prices that reflect economic cost and efficiency..."

A critical lesson learnt is the process is that in the presence of perceived exclusivity by the provider and the decision to liberalise, it is preferable to negotiate. Litigation does little to foster investor confidence while negotiation indicates a responsible attitude on the part of the government.

Negotiations are proceeding smoothly in the OECS and we expect a conclusion shortly.

ii. OECS position

The liberalization of the telecommunications sector was never subject to the negotiations with the private incumbent monopoly provider. It was always however the position of the OECS that existing commercial licenses would be respected until such time as it would be possible to change them by mutual agreement or by legislative action. Initial negotiating positions were informed by the perception that the incumbent operator had some exclusive privileges. The OECS Supreme Court decision in the Marpin case however has radically changed the perception of exclusivity. In the absence of any exclusive rights and the guarantee for non-exclusive licenses then the incumbent operator would have no basis to seek compensation for loss of any perceived exclusive rights.

The OECS position has always been that they will negotiate with Cable and Wireless as a group and seek a common date for termination of the existing licenses. There will be no acceptance of the claims for compensation.

iii. Negotiation framework

Countries are fully cognizant of the need to maintain a good investor climate and not to send the wrong signals. They have therefore engaged with the incumbent provider Cable and Wireless in discussions regarding the early termination of their existing licenses. These discussions are expected to conclude shortly and are not expected to impact negatively on the decision to liberalize the sector by mid-20001.

The future discussions with Cable and Wireless will center on the conditions for their new licenses and the arrangements for the provision of services.

7. LESSONS LEARNED.

i. Stakeholder ownership

The great complexity in the creation of a regulatory body covering several independent member states in such a fast-moving sector requires significant resources merely to bring together participants, and great flexibility of project design.

The critical element for success has been ensuring stakeholder ownership through constant involvement by consultations and provision of timely information. The constant training of all the various regulators has also ensured that the regulators develop as the process develops.

The centrality, especially in multi-country projects of this nature, of strong commitment and close involvement of the regional coordinating body (in this case the OECS), participant countries and their citizens is a key to the projects success thus far.

• The complexities of the transition process between the project management unit and its evolution to a regional authority is another le

ii. Political commitment

The level of political commitment has ensured the success of the process. Commitment through the provision of resources, involvement in the process and providing relevant policy and guidance. This involvement has been provided from the level of Ministers and Permanent Secretaries as well as the technocrats of all of the member countries.

iii. Building networks

The OECS telecommunications reform Project has allowed for the building of people networks. These links have proven useful in the development of strategies and in the planning of the liberalisation process.

8. CONCLUSION

i. Economic opportunities

The conclusions based on our experiences indicates that in working towards liberalization countries need to be clear in their objectives for liberalization. If attracting investment is an objective then ensuring investor confidence would be important.

In the march towards liberalization the various stakeholders should be involved and cooperation with other countries in similar situations is most useful in learning from their experience and joining forces.

The OECS based on our experience thus far would like to offer the following recommendations:

Clearly define all the rules and regulations for the "game' Engage all the stakeholders in discussions regarding the transformation of the sector so that they may feel ownership of the process

Develop policy early as the guide for transformation of the sector. Ensure clarity of purpose at the highest political level on major issues before moving forward.

Share experiences with other countries that are in or have experienced similar situations

Use a consultative approach with all shareholders to establish owners

ii. Liberalisation issues,

In the reform of the sector there are several issues that need to be addressed and in order of priority the putting in place of a sector policy would be the most important. The policy would serve as the guide for drafting the legislation that would serve the new environment.

Legislation is needed to reflect the regulation of telecommunications in a new environment where competition is a given and technological convergence forces one to develop new paradigms.

In the case of the OECS, policy has been drafted, legislation passed and regulation in the final phase of completion.

The sovereignty of nations is critical for the OECS, The regulatory body will be operating across borders and the issue of policing and enforcement would impinge directly on the sovereignty of the member states.

If the process is to result in the attraction of new investors then the potential investors would need to be assured that the process of licensing is not arbitrary and that the regulator is independent and operates in a transparent manner The management of the spectrum is of critical importance. Frequencies have to be made available for the new services and before this is done then an audit of the spectrum would be required. The audit would determine the present use of the spectrum, what is available and what level of frequency migration is required. The OECS is in the process of its spectrum audit and we have found that quite a bit of outdated equipment is in use and a moratorium would be required for the phased obsolescence of this equipment.
In an effort to ensure that the universal service obligations are met all providers of service will have to contribute to a fund. The provision of service in remote and rural areas would be put up for tender for the supply of service and if need be financed from the Universal Service Fund.

Interconnection is another issue of critical importance and the key factor would be the determining of costs for determining interconnection charges.

The preparation of the future regulators is a priority for the OECS we are in the process of coordinating with various training institutions for the training of our regulators. The use of the Internet for conducting distance-training courses is being explored

The OECS is in the process of transition to a fully liberalized environment by March 31st 2001. The transition issues would be a review of the requirements for liberalization and a roll out plan.

The Secretariat will be identifying the precursor elements required for the achievement of full liberalization. A technical team has been established to review these issues.

iii. Follow up

In conclusion the telecommunications reform project has thus far concentrated on the consolidation of the process to ensure that the major objectives could have been completed in the time frame specified. The primary objectives having now been achieved the participating countries are now in a position to consider expanding the membership of ECTEL.

Follow up issues would include:

- the satisfactory transition from the telecom project's PMU under the OECS Secretariat to the management of ECTEL itself, which will include changes to the Loan and Project Agreements;
- the purchase of spectrum management equipment, utilizing the skills of a procurement specialist;
- the staffing of ECTEL with trained professionals; and
- the approach to new potential new member countries.

Beyond these immediate concerns, the time is ripe to look forward to maximizing the benefits of a competitive telecommunications regime on the broader economy increasing private investment in the sector and beyond, and reaping the full advantage



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Documento No. 23

Regulation In the Era of Convergence: A South African Perspective

Mandla Msimang, ICASA

Regulation in the Era of Convergence: A South African Perspective

Mandla Msimang, Advisor to Council, Independent Communications Authority of South Africa

Introduction

Technological developments are driving the convergence of information and communication technologies (ICTs) and industries. These technological advances have brought about new challenges to regulatory, policy and legislative regimes internationally. In addition, they have begun to blur traditional definitions and jurisdictional boundaries.

In line with this rapid technological progress, the last decade has seen a great period of policy reform in telecommunications, characterized by trends towards the privatization of national operators, a growing international commitment towards liberalizing trade and services in telecommunications, and the licensing of new entrants and services including cellular, paging and VANS. Coupled with convergence, these trends are setting clear challenges to telecommunications regulators across the world. These trends are further testing long-held notions about the role of the regulator and both market and state driven views of ways to achieve the equitable delivery of services. Although progress is being made, these challenges, and in particular the role of the regulator in addressing them, are far from resolution.

Today I will talk about how we, in South Africa, have sought to resolve some of the issues around regulation of the broadcasting and telecommunications sectors. In particular I will be addressing :

- Fears: Regulation in the Era of Convergence
- Institutional Framework: Regulatory Developments in South Africa

• The South African Legal, Policy and Regulatory environment'

Ultimately, a consistent and effective regime of regulation can only exist where the justification for regulation is articulated with reasonable clarity, and in this respect difficult choices must be made between competing and often conflicting rationales. It is this area of the debate where the most conflict exists.

In this paper, I will argue that the converged communications sector still requires regulatory oversight. Why? To encourage growth, development and innovation. I will discuss broadly how regulation in a converged sector can be approached to achieve these objectives. This, as I will discuss, is dependent on the adoption of a regulatory and policy approach which recognises the following:

- Public Interest Imperatives
- Minimal Regulation : the "End to End" design Principle
- Differences between Carriage & Content Regulation

Fears: Regulation in the Era of Convergence

An air of confusion surrounds the idea of "regulation" amongst policy makers, regulators, legislators, industry players and consumers alike, and about the relationship between convergence, the Internet in particular, and innovation. As a newly formed regulator we are often warned (in most cases by industry players) that regulation harms innovation; that the best or most effective policy for regulators is, to encourage industry self-regulation or co-regulation and allow the "marketplace to find business solutions ... as an alternative to intervention by government;¹" that we should be weary of government-backed rules that may undermine creativity. Any talk about "regulating" in a converged environment invites impassioned responses from operators and consumers alike that development and innovation should not be stifled.

¹ FCC Chairperson, William Kennard - 1998

The challenge for regulators today is to demonstrate that regulation in this era of convergence is not only possible, but is necessary; that regulation need not have the adverse effects that we are so often warned against, but if properly considered and implemented will in fact stimulate growth, promote innovation and encourage much needed socio-economic development. Effective regulation however, also allows a regulator to *refrain from regulating* at appropriate points. That choice in itself is still regulation.

Another fear, particularly from the broadcasting industry, is that the better-resourced telecommunications sector's issues will dominate the smaller broadcasting sector's issues under a converged regulator. This, however has not been the case. The Council of ICASA has dedicated a lot of time in these first few months to the consideration of community radio applications, and will be entertaining applications and hearings for additional private radio sound broadcasting services country wide – some 234 expressions of interest were received three years ago. In addition, key on ICASA's list of priorities for the short and medium term is the restructuring of the public broadcaster (SABC) – in terms of the 1999 Broadcasting Act which will involve corporatisation into a public company, splitting into public and commercial subsidiaries, and privatization of some of its assets.

Institutional Framework: Regulatory Developments in South Africa

As suggested by the ITU's Regulatory Trends report for 1999, the challenge posed for regulators in both industrialized and less-industrialized economies, is to develop a model of governance that will facilitate the global growth of ICTs for both international trade and development purposes. This, at its simplest, must include consistent and relevant regulations and laws, which do not inhibit technological innovations or the growth of the sector, but rather promote access and infrastructure development, competition and foreign investment. Getting the regulatory framework "right" as the report suggests, is of crucial importance in this regard, or entry barriers will hinder the expansion of services and new entrants.

While in many countries the debate is still going on about the need for a converged or merged telecommunications and broadcasting regulator, or the "right" structure for such an institution, in South Africa after many years of debate, on July 1, 2000, the Independent Communications Authority of South Africa (ICASA), was created as a successor to the South African Telecommunications Regulatory Authority of South Africa (SATRA) and the Independent Broadcasting Authority (IBA). This merger of the broadcasting and telecommunications regulators was primarily motivated by convergence and the blurring of regulatory distinctions accompanied by the emergence of new communications technologies. In fulfilling our mandate, we aim to to:

- ensure that we facilitate the establishment of a vibrant, dynamic and competitive communications industry;
- develop the framework for the South African industries to be investor friendly, stable, and creative and at the forefront of new technologies.
- ensure that in doing this, we not only ensure that we empower historically disadvantaged groups and facilitate universal service/access, but that we provide services to enable all South Africans to have access to full and diverse information about their environment.

Thus, in South Africa we have moved one step further than the discussion of the institutional approach to regulation of the telecoms and broadcasting sectors and have actually implemented it – to a certain extent. Although this merged institution exists, there is an admitted vacuum in terms of the legal, regulatory and policy frameworks for a converged sector, which are still being developed.

South African Policy, Legal & Regulatory Environment

In South Africa, as in most countries, there has always been a degree of both gaps and overlap between the roles and functions of broadcasting and telecommunications regulators. The advent of convergence and converged technologies has increased interdependencies across markets involved, for example between providers of content, distribution and access control, and thus across the regulators involved, but it has also exposed the gaps in our legislative and policy frameworks.

ICASA was established in terms of the ICASA Act in an attempt to address this problem of regulatory gaps and overlaps. However, while the ICASA Act merges two administrative bodies, SATRA and the IBA, ICASA regulates the telecoms and broadcasting sectors under different statutes. It regulates telecommunications in terms primarily of the Telecommunications Act, while the Independent Broadcasting Authority Act, and the Broadcasting Act are the principal statutes used in regulating the broadcasting sector. No merged legislation has yet been developed although there is talk of a "Communications Amendment Bill" and omnibus legislation in 2001.

The fact that we operate in terms of a number of enabling statutes, alone represents a major challenge to the merged regulator. The existing legislation is not in all cases complementary and contains many of the same gaps and overlaps present in the two sectors. For example with regard to the promulgation of regulations, while in the case of broadcasting regulations the Authority may publish regulations on its own, in telecommunications the Minister must approve and publish regulations. The Acts are silent with regard to the promulgation of regulations which pertain to "new" or "converged" technologies. As such, the regulator still has the same challenge, which is to effectively address the regulation of converged technologies, in a fast changing sector governed by legislation enacted years ago. There has, however, been a consultative process over the course of the last year, spear-headed by the Department of Communications towards an E-Commerce Policy. The E-Commerce Green Paper, in fact, should have been launched just this week. In addition convergence legislation was being drafted, but has since been postponed.

ICASA is concerned that there are legal loopholes and gaps in our present legislation, but particularly in respect of new technologies and applications such as e-commerce and Internet regulation which are not even mentioned in either the Telecommunications or Broadcasting Acts. While we recognise that the legal framework is not ideal, we also are

fully aware that given the rapidly changing communications environment driven by the unprecedented rate of technological change, prescriptive rules will often be outdated before they are even in place. Hence the need for an innovative regulator with methods of continuos improvement and evaluation.

In the absence of an established legal and policy framework, we have recognised in South Africa that an institutional or administrative merger is not enough to tackle the many challenges that a converged sector poses. Perhaps we have pulled the cart before the horse in South Africa and answered the question of how many regulators there should be, before addressing the critical concern of how, if at all, do we regulate a converged communications sector? Or even addressed the extent to which regulation may or may not be required. Discussion of these issues should be held in the context of international trends, such as that in Canada of 'forbearance', which stresses the importance of regulatory oversight to ensure developmental goals, but does not support "overregulation" where there is clear competition and consumer benefits.

In terms of its operating structure, ICASA is maintaining two separate divisions for telecommunications and broadcasting because at present, both sectors remain fairly distinct, with issues of Internet broadcasting only now coming onto the regulator's agenda. The South African marketplace has few companies that are attempting to combine broadcasting and telecommunications or IT at present. Only one, Johnnic, is seriously attempting to take advantage of convergence and it is too soon to measure its success.

In the remainder of this discussion, I will address the key principles, as noted in the beginning of my presentation, which underpin regulation in a converged communications sector. These principles will help open the discussion on *how* we proceed and develop regulatory structures and strategies for a converged communications sector. The key principles that I will discuss are the public interest imperative, the "end to end" design principle, and the notions of content versus carriage regulation.

Public Interest Imperative

Despite many differences between broadcasting and telecoms regulation, there is one fundamental imperative which they share, and that is 'the public interest'. The trend towards convergence does not erode the value of public interest based regulation nor of regulating for the goal of universal service, to which the broadcasting and telecoms frameworks are currently geared.

As regulators in a converged sector we have the unenviable task of balancing potential economic benefits against the values of plurality and diversity and the effects on competition. In so doing, the public must be confident that any such decision will be taken via a transparent process, or even that adequate reasons will be given or required to enable us to check the rationality of such decision-making. We cannot afford to be biased for or against consumers versus business, or between telecommunications and broadcasting. Thus, the "public interest," a term used too often and too loosely, must be meaningfully constructed so that it encourages consistency in regulation, and does not hand to regulators significant, and largely unchecked, discretionary power.

The regulator should be charged with securing consumers' interests in media and telecommunications and doing so through the use of our governing statutes, competition law and principles for economic regulation where these serve the public interest. This might imply the replacement of established regulatory norms of licensing and entry control by a new norm of permission to enter. This perhaps could mean making more and more services, as we liberalise, that don't require licences. However, this can only be done if universal service fee and obligation structures are changed and an alternative method, other than licence fees, can be used to get universal service fees and obligations. The regulator should ensure that citizens enjoy universal access at affordable cost to the new services and information necessary for full social participation.

Bridging the digital divide should be placed at the heart of any meaningful concept of 'the public interest.' The move away from a world in South Africa of three public free to air,

terrestrial television channels, one private free to air, terrestrial channel and one satellite television station to a new era of interactive television integrated with wider computer and telecommunications facilities, accessible in many cases via costly gateway facilities, presents the risk of heightened social division in an already stratified society. Technological development poses a threat in that it may result in an increase in the hierarchy of information 'haves' and 'have nots' and therefore heightened social inequality. Given the necessity of media and telecommunications access to bridge the digital divide, it seems reasonable to this one of the key rationales for regulation in the 'public interest' in the era of convergence.

It is clear, however, that the changing nature of communications demands regular reappraisals of 'the public interest' and reevaluations of what that really means. The overall regulatory structure and strategy must be in line with changing definitions of public interest.

Minimal Regulation rather than No Regulation: End to End Design Principle²

It has been argued by Lawrence Lessig and Mark Lemley that the "end to end" design principle of the Internet is relevant to discussions about regulation, in particular of the Internet, in a converged communications sector. I support this view. What is "end to end"? Looking at "end to end" as it applies to the Internet from a pure policy angle, it means that the network does not have the ability to discriminate. Similarly the regulator may not discriminate. If one plays by the rules, if one puts something on the Internet in the form it demands (e.g. TCP/IP Format), the network is not able to discriminate between one kind of content and another, or one kind of application and another. This principle of nondiscrimination says to innovators that if you come up with a new idea, a new way to use this Internet, or a new way to take advantage of this communication architecture, the architecture cannot act strategically against you³. In dealing with the Internet, and with convergence technologies in general it is critical that the regulator

² See End to End Arguments in System Design, http://web.mit.edu/Saltzer/www/publications ³ Lessig

adopts a policy that says that "end to end" principle will not be violated. In other words -- minimal regulation, no discrimination. This approach will spur innovation and competition, and at the same time it will preserve the diversity and speech and opportunity new technologies such as the Internet have so far protected. By enabling a wider variety of applications to connect to and use the network, more competition is created and no hierarchy exists – anyone corporate or individual (if they have access) can compete. Neither the carrier, nor the regulator can exercise power to discriminate in the carriage.⁴

While it may be premature to indicate what method of regulation ICASA is to follow, given that policy is still being formulated on our regulatory approach, the argument presented by Lessig is an interesting one, and will surely surface in discussions on the future of regulation to encourage innovation and competition in South Africa. Doubtless, the international trend towards "light touch" regulation in liberalizing markets will also be instructive.

Content & Carriage Regulation

In an industry like ours, which is ever changing, where market boundaries are shifting and each policy objective becomes a moving target, it is hardly surprising that market conditions are crucial. The management of bottlenecks and gateways can make a significant difference to the level of entry and dynamism in the industry. The price charged for network carriage will influence the quantity and quality of content delivered over them. Therefore, infrastructure and content or programming regulation can be seen as two sides of the same coin; they are both needed to deliver the objectives that society has chosen.

Content and Carriage regulation undoubtedly require different expertise and understanding, and different regulatory approaches, but they need to be co-ordinated.

⁴ Lessig & Lemley, Written Ex Parte before the Federal communications Commission, CS Docket No 99-251

South Africa has chosen to coordinate them under one regulatory body, ICASA. Other jurisdictions have chosen to entrench that coordination in legislation while maintaining separate regulatory bodies, while others still have not addressed this issue of coordination formally.

Broadcasting is equated with content or programming regulation and telecommunications with carriage regulation. On one hand, carriage or infrastructure regulation is needed to ensure free, open and universal access to all platforms. On the other, content regulation is required to ensure them.

At this stage, four months into its development, ICASA has not yet had an opportunity to formulate its position on this issue, in addition the convergence policy framework is not yet in place, however, with the publication of the "Communication Amendment Bill" next year, I am sure that South Africans will take the opportunity to debate the best approach to regulation in a converged era and how the regulator should approach this issue of content versus carriage.

Conclusion

These are exciting, yet challenging times. For the second time in the last decade, the telecommunications sector is being reformed – this time to accommodate convergence. Convergence is bringing with it several regulatory, legislative and policy challenges.

The challenge of convergence will have to be addressed in the context of still developing telecommunications frameworks, and sector reform which began less than ten years ago underway. We are addressing convergence at a time when South Africa's main telecommunications operator Telkom SA, is still state owned, but in the first phases of sector liberalization. This will undoubtedly serve to constrain to some level our ability to immediately embrace the full range of converged services and our ability to open our markets. While we address convergence we are simultaneously still considering factors including the adoption of monopoly market structures to effect universal service,

inherited legacies of the fixed line incumbent, obligations to investors, and a range of national social and economic policies, such as ensuring competition and investment whilst also promoting the empowerment of historically disadvantaged communities through restrictions on ownership and control of telecommunication services. However, as can be seen by the creation of ICASA, and the moves to amend existing legislation, we are well on our way.

Critical to the development of a converged communications sector in South Africa, is the ability of the region to effectively address convergence. Noting the borderless nature of many of these new technologies, and the fact that technology is forcing us to reexamine the concept of jurisdiction, regional cooperation with regard to regulation in this era of convergence is of utmost importance.

South Africa is seeking innovative ways of equipping the regulator to function in the new era of convergence bearing in mind the above-mentioned key principles. Namely the public interest, minimal regulation, and a balance between content and carriage regulation. We are also looking at addressing many of these issues on a regional level through the Telecommunications Regulators' Association of Southern Africa (TRASA). Through consideration of these and other key principles, the communications sector in South Africa can be developed to address the social and economic needs of the country and the region.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 43

Regulatory Agency

C-K. Han, Korea Communications Commission

Regulatory Agency, the Korea Communications Commission

1. Overview

- o As the telecommunications industry was gradually privatized and deregulated in 1980s, the Korean government recognized a growing need to protect consumers and to regulate anti-competitive practices of the service providers. In an effort to meet this policy need more effectively, the Korean government decided to establish a regulatory body from the policy-making function of the government, based on the benchmarking of developed countries such as the U.S., United Kingdom and Canada.
- o The Korean Communications Commission (KCC) was established in March, 16 1992, in accordance with the Section 37 of the Basic Telecommunications Act which was revised in 1991 in order to create an environment for fair competition and to protect the public interests.

The role of the KCC was gradually strengthened as the competition of telecommunication marketplace developed.

In December 1997, a standing commissioner was appointed and the secretariat was organized, and the KCC was newly granted authorities to investigate unfair practices of the service providers and inquiry their interconnection standards and agreement.

o In September 1998, the preview of the numbering plan and the

examination of the business accounting report were transferred from the Ministry of Information and Communication to the KCC, and a fine of up to 3% of the revenue was ruled to be imposed on the service providers for their illegal activities. The KCC has now been positioned as a specialized regulatory agency for promoting fair competition.

2. Organization and Main Functions



o The commissioners (except the standing commissioner) are appointed by president and guaranteed three-year terms.

The chairman delegates the overall management and administrative responsibility to the standing commissioner. The commissioner carries out preliminary reviews of the agenda that will be presented to the commission for discussion.

o The office of the secretariat is composed of one Secretary-General and a total

of 25 personnel in five departments: General Management, Inquiry, Arbitration, Investigation 1, and Investigations 2. The Secretary-General plays the managerial role of supervising the operations of the Committee, and the Office of Secretariat undertakes administrative works for the functioning of the Committee such as providing support to the Committee and investigating unfair practices and consumer complaints.

- o As a specialized regulatory agency, the KCC performs the functions of arbitration, inquiry, investigation, verification and consumer protection.
- arbitrates the disputes among service providers, and between service providers and consumers for compensation
- deliberates prior to rulemaking for the interconnection, provision of facilities, information provision, and numbering plans
- investigates unfair practices such as refusal and breach of agreements between service providers, breach of contracts between service providers and consumers, and other practices against consumer interests, and advises the government on corrective measures
- examines and verifies business accounting reports submitted by service providers
- promptly dealt with consumer complaints in telecommunication services through "The Consumer Inquiry Center"

3. The Rules for fair competition and customer protection

A. Types of Unfair Practices

The KCC made public the following types of unfair practices based on Section 36.3 of the Telecommunications Act in the "Criteria of Unfair Practices in the Telecommunications Industry" :

? Refusals of making Agreements, etc (regarding interconnections, provision of facilities, facilities sharing, information provision)

 acts of refusing requests for interconnection without reasonable cause; acts of discrimination against other companies with respect to interconnetions etc without reasonable cause; acts of not implementing contracted agreements without reasonable cause

? Information Misuse

- acts of misusing information gathered from interconnections etc with other service providers for the benefit of one's own business

? Setting Unfair Prices

- practices of setting retail prices or access charges against accounting rules and other related laws, cross subsidies, and fabricating price elements such as costs or assets

? Violating Usage Contracts and Undermining User Benefits

- acts of making individual contracts other than common contracts, acts of offering different service conditions from common contracts, acts of offering services in ways that markedly undermine user benefits

? Restrictions on carrier selection

- acts of installing and operating telecommunications facilities that can be used only for specific services, acts of refusing to provide services or acts of offering unfavorable services to subscribers of other telecommunication services
- bundling of services is permitted in principle, but in case the service provider has market dominance in one of the bundled services, the proof for non-extension of market dominance to the other bundled services is required

B. Performance (January 1997 to July, 2000)

As of July, 2000, the KCC has held 39 meetings to vote on a total of 243 cases for review, wherein The KCC has issued corrective measures for 169 cases of illegal acts, and arbitrated for 13 cases.

The acts of violations are categorized into 6 cases of refusal of contract agreements, 2 cases of information misuse, 7 cases of improper tarriff calculation, 67 cases of contracts violations, and 77 cases of obstruction of user benefits (31 cases of fines totalled 2.8 billion won, 70 million won for negligence fines, 33 cases of newspaper announcements)

4. Regulatory Issues and Concerns : Strengthening regulatory authority and ensuring independence

? The relationship with MIC

To elevate the transparency, neutrality and efficiency of regulations, the functions of regulatory enforcement such as filing and approval of interconnection agreements and usage contracts, and the authority to issue corrective order for anti-competitive practies by service providers should be transferred to the KCC.

The MIC should concentrate its efforts on setting the rules of the game by improving pro-competitive laws and institutions and ensuring independence in the matters of finance and personnel management of the secretariat office.

? Relationship with Fair Trade Commission as the general antitrust authority

Even though the antitrust regulatory body in some countries tends recently to extend its general regulatory authority to the telecommunications sector, it is desirable to maintain the role of the specialized regulatory agencies under a cooperative relationship between both regulatory bodies.

In order to avoid imposing double penalties for identical acts from both agencies, detailed cooperation rules were revised in the Telecommunications Business Act.

In the future, a more systematic mechanism of specialization and cooperation between both regulatory authorities will be designed for dealing with such matters as approving large-scale M&As among the service providers.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 47

A New Chapter in Regulatory Partnering

Eng. Mahmoud Y. Wreikat, Telecommunications Regulatory Commission (TRC)

a New Chapter in Regulatory Partnering

Eng. Mahmoud Y. WREIKAT

Director of Technical and Licensing

Telecommunications Regulatory Commission Jordan

Contents **Telecom History in Issuing Telecom Law TRC Vision TRC Mission statement Duties of TRC Board of Directors Director General** The Power of the TRC **TRC Financial Resources** Method of Licensing **The Main Procedures of Licensing The Main Requirements Licenses Issued**

Telecommunications History

- **1921 Department of Post and Telegraph**
- **1951 Ministry of Communications**
- **1971 Telecommunications Corporation**
- 93-95 Sector Reform
- **1995 Telecommunications Law**
- 1995 Telecommunications Regulatory Commission



TRC VISION

A telecommunications environment that is competitive, advanced, regulated and available to all

TRC MISSION STATEMENT

The TRC aims to realize an effective working relationship among the state, consumers, service providers and equipment suppliers so as to facilitate the growth of high-quality, cost-effective and reliable telecommunications services. It is committed to fostering competition and fair-play, and while being transparent, it strives to keep upto-date with the latest technological developments worldwide.

TRC VALUES

Independency Transparency Objectivity Simplicity

DUTIES OF THE TRC - 1

- Promote the development of telecommunications services in Jordan;
- Promote and maintain effective competition in the telecom sector;
- Promote the interests of consumers and user in respect of the prices charged for and the quality and variety of services;

DUTIES OF THE TRC - 2

 Promote public understanding of telecom sector and specially the services and options available to users; and

• Encourage efficient use of radio frequency spectrum in accordance with international obligations.

TRC CONSISTS Of:

- **Board of Directors**
- Director General.
- Executive Body

BOARD of DIRECTORS

- The Minister as Chairman
- The DG as Vice-Chairman
- Five Specialized experts as Members two of them at least should be from the public sector
- The authorities of the BoD are stated in the Law

DIRECTOR GENERAL

•Appointment

-recommendations of the BoD

-resolution of the Council Ministers

-endorsed by a High Royal Decree

Termination

-recommendations of the BoD

-resolution of the Council Ministers

-endorsed by a High Royal Decree

THE POWER OF THE TRC •licensing

- approve pricing and tariffs
- •set the returns payable to TRC
- arbitration dispute
- •investigate the ground of complaint
- approve interconnection agreements
- •set QoS targets
- monitor the performance of the licensees
- •Numbering Management
- •Spectrum Management
- •equipment Type approval

TRC FINANCIAL RESOURCES

- The "return" of licenses
- the fees charged by TRC for the services provided by it.
- Fines imposed pursuant to the law
- the grant received by TRC
- the funds assigned in the general budget
- any resources approved by CoM

METHOD OF LICENSING

- Public tender in accordance with the bases and conditions approved by the BoD.
- allowing the submission of applications for the licensing of a new services by whoever meets the conditions approved by the BoD.
- proposing to licensees to offer new services within the Kingdom
THE MAIN PROCEDURES OF LICENSING

- All those wishing to obtain the license will be given the opportunity to submit their proposals or applications.
- The proposal or application shall be based on providing the services to all within a reasonable period and at fair rates.
- The components of the proposal shall be based on fair, lawful competition with the licensees

THE MAIN REQUIREMENTS

- Acceptable statements illustrating the technical and administrative ability of the applicant to provide the service.
- Acceptable statements illustrating the financial ability of the applicant and the funding sources of the project
- pricing bases of the proposed services, and the method of their calculation.
- Types of the proposed services, the geographical coverage, and the technology used in the services.

LICENSES ISSUED

Services	No. of licenses	Exclusivity	
•Fixed telephon	e 1	2004	
•GSM	2	2003	
•Paging	2	none	
•Payphone	2	none	
•Data (ISP)	20	none	
 Private networ 	k 200	none	

The PSTN Operator JTC License

- 1995 First draft (before the Law)
- 1996 redraft in accordance with the Law
- 1996 draft in Arabic
- 1997 New Draft
- 1997 First final
- 1998 Final (before privatization IM)
- 1999 Signed
- 2000 Amended (before privatization)
- 2000 **Privatization (49%)**

Other Licenses

- Paging
 - 1996 press release , notice, public hearing
 - 1996 tender,
 - 1997 license issued
- Payphone
 - 1996 press release notice, public hearing
 - **1997** tender,
 - 1997 license issued
- data
 - 1995 press release notice
 - 1996 license issued
 - 1999 public hearing,
 - 1999 amended & issued license,



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 48

CPP-Interconnect Issue: The Case of Pakistan

Muhammad Akram Khan, Pakistan Telecommunication Authority

CPP-INTERCONNECT ISSUE: THE CASE OF PAKISTAN

Paper for ITU-BDT Symposium for Regulators November 20-22, 2000 Geneva SWITZERLAND

Presented by:

Muhammad Akram Khan Member (Finance) Pakistan Telecommunication Authority Islamabad PAKISTAN e-mail: <u>makram100@yahoo.com</u>

INTRODUCTION

- 1. The Pakistan Telecommunication Authority (PTA), the regulator for telecom systems and services in Pakistan, issued a comprehensive determination on 3 November 2000 on Calling Party Pays (CPP) and Interconnect issues. Till then, Pakistan had the Mobile Party Pays (MPP) regime. The objective of the present paper is to share inform about the process of arriving at the determination and the model used to determine the tariff and interconnect rates under the new regime. But first a few remarks about the telecom sector in Pakistan would be appropriate.
- 2. Pakistan has a monopoly operator for the fixed-line telephone, known as Pakistan Telecommunication Company Limited (PTCL). It has three mobile operators. The fourth one, a subsidiary of the incumbent operator, is about to launch service in January 2001. The monopoly of PTCL will come to an end by December 2002. Besides PTCL, there were two small fixed line operators also: one for the government connections and the other for defense forces. But they were quite small in size and could not play any significant role in the issue under study. There are about 3.5 million fixed-line phones and about 0.35 million mobile phone. The mobile service started in 1990. The tele-density is about 2.1 for a population of about 140 million.
- 3. There had been a demand from the mobile operators for introducing the CPP, as the MPP regime was a potent deterrent in the spread of mobile telephones. The mobile phone customers would keep their phones shut, or would avoid giving their mobile numbers to others and often refused to take the call, if they thought it was not important for them. It was because the incoming calls would also cost a

charge to the customer. The mobile operators pleaded for adopting CPP so that diffusion of mobile service could take place.

- 4. In the first week of July 2000, the Minister for Science and Technology, assessing the advantages of CPP, issued a policy directive to the PTA that CPP regime should be adopted by 1st October 2000. PTA had only three months to act. It therefore, started quickly and entered into a process of consultation with various stakeholders as well as public. It held public forums in three large cities and issued two consultation papers for soliciting public opinion as well as the comments of the mobile and fixed line operators.
- 5. PTA encouraged the mobile operators and the PTCL to negotiate among themselves the interconnect rates and revenue sharing formulas. But despite encouragement of the PTA, the operators were unable to arrive at any agreed formula for interconnect and tariff rates. At that juncture, PTA decided to play a more active role. It held several meetings jointly as well severally with all the operators. The operators expressed their reservations on the PTA's model suggested in the consultation paper. During this process, the operators shared with PTA their confidential business data, which helped PTA in arriving at a fair determination.

PTA's MODEL

- 6. PTA adopted the following hypothesis for arriving at fair rates of tariff.
 - PTA kept consumer interest as its top-most priority.
 - It decided to protect the cost of the mobile operators for terminating incoming calls.
 - It decided to protect the revenue of the mobile as well fixed-line operators on originating calls.
 - It assumed, on the basis of available data, that there would be a diffusion of mobile phones about 20% in every six months after the introduction of CPP. For arriving at this rate it took into account the price elasticity of demand for mobile as well as fixed phones, and the possible contraction in the fixed-mobile phone calls.
- 7. The PTA adopted the following line of argument. After the introduction of CPP, the mobile phones would be cheaper and there would a diffusion of about 20% in every six months. This would enable the mobile phone operators, initially, to absorb some of the expansion on the existing network. As a result, their fixed cost per minute would go down. Subsequently, if they have to bring in new investment to expand their network, it would also, in the long run, lead to lower per minute cost.
- 8. The PTA tried to arrive at a tariff rate from fixed to mobile calls that should, at least, absorb the cost of the mobile operators on the incoming calls, which they

would be terminating without any revenue from their customers. This cost should now be paid by the fixed phone customer and passed onto the mobile operator.

- 9. As we shall illustrate below, the above line of argument still gave a rate of tariff for fixed-mobile calls that PTA considered would not be affordable for the fixed-phone customer. It, therefore, started looking for avenues for reducing the cost of the mobile operators. It identified two potential areas:
 - a) Rent of leased lines that the mobile operators had leased from PTCL for handling traffic on their own respective networks
 - b) PSTN discounts that PTCL was extending at the moment.
- 10. The then existing rates for leased lines provided for an average discount of 10% on the total bill of the mobile phone operators. Similarly, PTCL provided about 17% discount on the mobile operators PSTN calls bills. PTA decided to adopt an interconnect regime that would increase these discounts and then pass on this benefit to the customer of the fixed line phones.
- 11. Thus the PTA model provided for the following:
 - a) Determine cost of incoming calls to the mobile operators
 - b) Reduce it by a higher discount on PSTN
 - c) Reduce it further by a higher discount or by reduction in the leased line rates
- 12. The figure thus arrived at should be the share of the mobile operators from a fixed-mobile phone call.
- 13. The other challenge was the protection of revenue from originating calls. PTA decided not to interfere with the outgoing call rates of the mobile operators. So far as, PTCL revenue for originating fixed-mobile calls was concerned, PTA decided that the per-minute rate should be sufficient to protect their average revenue per call.

ILLUSTRATION OF THE MODEL

- 14. The following illustration would clarify the application of this model.
- 15. Given:
 - a) Mobil-fixed local call rate in the pre-CPP regime: Rs 2.00/ per 5-minute call
 - b) Average discount on PSTN calls to mobile operators: 17%
 - c) Average discount on leased lines: 10%

- d) Mobile outgoing standard package maximum local call rate: Rs 6.25 per minute
- e) Average fixed-mobile local call duration: About 1minute and 30 seconds
- 16. PTA determined that the cost of making a fixed-mobile local to mobile operators was Rs 2.00 per minute in the first period. This was based on the data provided by the mobile operators themselves. PTA averaged out the figures.
- 17. Average fixed-mobile call duration being less than two minutes would be rounded off to 2 minutes. The pre-CPP rate for a call of five minute was Rs 2.00. If this rate had to be protected, then PTCL should get a rate of Rs one per minute in the post-CPP regime.
- 18. Combining these two rates, PTA determined that a rate of Rs 3 per minute would be fair. PTCL and mobile operators in 1:2 ratios should share it.
- 19. However, the rate of Rs 3.00 per minute was to accompany two further provisions in the interconnect rates:
 - a) The PSTN discounts would increase from 17% to 25%.
 - b) The lease line rates would be reduced by 50%.
- 20. For long- distance call, all the operators agreed for a far-end hand over. Therefore, each operator would charge long-distance charge (NWD charge) from its customer besides the above CPP charge of Rs 3 per minute. Other rules regarding peak off-peak hours rate, roaming charges, installation charges and line rent would remain as they were in the pre-CPP regime.
- 21. For terminating incoming international calls, the mobile operators would terminate the international call from fixed network and get an interconnect share of Rs 2 per minute. In the MPP regime they did not get anything from PTCL, while they charged their customers for incoming calls.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 49

The Case of the Czech Republic

Marcela Gürlichova, Ministry of Transport & Communications

CZECH REPUBLIC

Geneva 20 - 22 November



Ministry of Transport & Communications

Marcela Gürlichova Deputy Minister

Basic Data

- population
- labour force
- unemployment

1999

- GDP (nominal)
- GDP per capita
- GDP per capita at PPP
- GDP growth
- GDP growth 2000 forecast
- annual inflation
- cumulative FDI inflow 1990-1999

10.3 million5.4 million9.0%

USD 56 billion USD 5,440 USD 13,080 -0.2%

2.5%

2.1% USD 19.3 billion



Sector Development



Mobile penetration (mid 2000): 28,3% Fixed lines penetration (mid 2000): 37,4%



CESKY TELECOM, a.s.



EuroTel, s.r.o. (51%)



CESKE RADIOKOMUNIKACE, a.s.



RadioMobil, a.s. (51%) Contactel, s.r.o. (50%)



Ministry of Transport and Communications

Mobile business

- mid 2000 2,9 mil mobile subscribers
- end 2000 3,5 mil mobile subs. (expect.)
- three mobile operators:
 - EuroTel (since 1991)
 - RadioMobil (since 1996)
 - Cesky Mobil (since 2000)



Implementation of UMTS

UMTS licensing - options for the CR:

- 3 licences to the current GSM operators (2x10MHz + 5MHz each)
- a single UMTS licence (2x15MHz + 5MHz) excluding GSM operators (beauty contest or auction)
- 1-3 licences (2x10MHz + 5MHz each) excluding GSM operators (beauty contest or auction)
- mix of the above

Minsitry of Transport and Communications favours the first option



Political and Legal Framework

- National Telecommunications Policy (1999) main objective: adoption of the EU regulatory framework
 - <u>1) Liberalisation</u>
 - Telecommunications activities may be in the Czech Republic performed in accordance with conditions given by the Act on Telecommunications without any other restrictions
 - 31 December 2000 the exclusive rights of CESKY TELECOM, a.s. shall expire

- <u>2) Regulation</u>

- Non-discriminating and transparent market conditions
- Independent regulatory authority, ministry
- Licence, frequency and number allocation, prices etc.
- Universal service



Political and Legal Framework

- <u>3) Free Competition and Open Market</u>
 - ONP
 - Carrier selection, carrier pre-selection, number portability
 - Asymmetric regulation significant market power

- 4) Further Sale of Property Interests of the State

- CESKE RADIOKOMUNIKACE a.s. (51% NPF)
- CESKY TELECOM, a.s. (51,1% NPF)



Political and Legal Framework

- Act No. 217/2000 Coll., on Electronic Signature
- <u>Act No. 151/2000 Coll., on</u> <u>Telecommunications</u>
 - issuing of licences
 - equipment
 - universal service
 - ONP principles
 - *frequency spectrum management and numbering*



Regulatory Bodies

- Ministry of T&C
 - policy and strategy, forign affairs (including EU matters), legislation
- Czech Telecommunications Office
 - independent on MTC and operators
 - day-to-day regulation
 - licensing, spectrum and number management



Contacts and Links







Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 50

The Impact of Technological Convergence on the Regulatory Structure of Brazilian Telecommunications

Luiz Fernando Ferreira Silva, Anatel

The Impact of Technological Convergence on the Regulatory Structure of Brazilian Telecommunications

by

Luiz Fernando Ferreira Silva, Ph.D., Anatel, Brazil

1 Introduction

This short paper aims at describing the Brazilian stance concerning the impact of technological convergence on the regulatory structure of Brazilian telecommunication sector. The implications of technological convergence on the regulatory structures clearly point out that ongoing regulatory regimes shall be reviewed. The new attitude and actions in this concern must be undertaken in accordance with the expectations from telecommunication services providers and consumers. It should be borne in mind that the main objective must be the promotion of greater benefits to the society as a whole through a growing availability of convergent services. For a better understanding of this issue, this paper was divided into the following topics: technological convergence; Anatel's regulatory action; future actions and conclusion.

2 Technological Convergence

Among the several existing concepts for technological convergence, we have chosen referring to it as a process of successive similarity formation between technologies previously distinct. These technologies once established clear border of the services they could eventually make available. However, they presently share the same digital environment.

In this scenario, regulatory authorities and agencies are likely to undertake measures to reform legislation and regulation as a result of a long-term analysis on the impacts of technological convergence. Meanwhile, when this situation is just part of a theoretical exercise, there is no need for regulators to stand still for technologies and services are evolving rapidly and making obsolete a great amount of legal and regulatory provisions. In this sense, regulatory uncertainties should be timely and expeditiously removed in order to allow the continuous growth of the telecommunication sector.

As a primary step towards a flexible regulatory framework, technologies and platforms should be considered as neutral. This would allow that gradual or radical innovations to be easily assimilated, bearing in mind the expectations and interests of users and service providers. The technological convergence will certainly be a significant challenge to be faced by telecommunication, broadcasting and computer industry sectors.

In addition, there are several questions to be addressed concerning the future of these services, in particular, the risks and opportunities determined by regulatory and institutional changes. On the

one hand, concerning the risks, we can indicate: reduction on usefulness of a great number of regulatory principles; increase in the number of complains from users and operators to regulator; reduction on the time limit for hard regulation; difficulties in inspection; and rise in the number of conflicts among operators. On the other hand, Concerning the opportunities, we emphasise: reduction on the final cost of services available for users; reduction on the complexity of regulation; reductions on the barriers for the entrance of new competitors; increase in the number of users; support for market growth and stimulus on the demand for services; better quality for supplied services; increase in the number of options of operators to users; and rise in competition level.

3 Anatel's Regulatory Action

Anatel has been developing actions considering technological convergence. The prime objective of such actions is to establish in Brazil a modern and efficient telecommunication infrastructure that can offer to the entire population telecommunication services at fair prices. Secondly, Anatel's regulatory action is concerned to structuring regulators and telecommunications sector according to technological convergence. We highlight the following regulations:

3.1 Regulation on the Use of Networks of Paid Mass Communication Services for Provision of Added Value Services - Approved by Resolution nr 190/1999.

It covers DTH, MMDS and Cable TV in order to make available telecommunication networks to all added value service providers, allow the network owner to explore SVA only through constituting an enterprise with this end, allows access to added value services only to pay-TV subscribers, increase competition between providers and access networks (Cable TV x PSTN), make it possible to connect pay-TV networks to the Internet backbone without preventing access via connection service providers. The Paid Electronic Mass Communication Services providers are then able to commercialise access to the Internet for added-value service providers.

3.2 Regulation on Sharing of Infrastructure between Enterprises engaged in Providing Telecommunication Services - Public Consultation under nr 239/2000.

It observes the principles from article 73 of LGT and the provisions contained in the Joint Regulation (Aneel, Anatel e ANP), defines a methodology to calculate minimum and maximum reference prices and indicates the situation in which the mediation process from Anatel is suitable.

3.3 Regulation on Multimedia Communication Services - Public Consultation under nr 246/2000.

It establishes that new convergent services are independent from platform and provides that network capacity should be sufficient for multimedia applications, as data, images, sound and video, texts, etc. It does not cover PSTN, broadcasting and pay-TV services for the time being.

3.4 Regulation on Paid Mass Electronic Communication Services (SCEMa).

It contemplates the term "electronic", suitable for the telecommunications context; authorisation of services independently of licensing on authorisation for the use of radiofrequency; regulation of services independently of technology use for service provision; significant advances in the service provider-user relationship.

3.5 Regulation on Indicators of Paid Mass Electronic Communication Services (SCEMa).

It provides ANATEL with technical, operational, economic, and administrative information, regarding SCEMa provider, features as a control tool for supervising SCEMa providers' obligations and serves as an official source of information to society and investors.

3.6 Guidelines for Authorising the Use of Radiofrequency to Collective Interest Telecommunication Service Provision.

It establishes basic guidelines for authorising the use of RF for telecommunication services of public interest in certain frequency bands.

3.7 Regulation on the Use of Telecommunication Networks.

It disciplines the use of telecommunication networks by telecommunication service provider or SVA provider and provides citizens with access to infrastructure, world standards and great range of services, at reasonable prices.

Furthermore, we can also cite:

3.8 Joint Regulation on Infra-Structure Sharing between the Sectors of Electrical Energy, Telecommunications and Petroleum - 1999;

3.9 Modification of article 4° of the Regulation on Telecommunications Services, approved by Anatel's Resolution nr 73 - 2000;

3.10 Destination of Frequency Bands from 2.170 MHz to 2.182 MHz for use as return channel through radiofrequency (RF), in the Service of Multichannel Multipoint Distribution System (MMDS) - 2000;

3.11 Joint Regulation on Mediation of Regulatory Agencies from Electrical Energy, Telecommunications and Petroleum Sectors;

3.12 Regulation on Services with Scientific or Experimental Purposes.

Anatel's Future Actions

Aiming at evaluating the impact of technological convergence on the sectors of telecommunications, broadcasting and information, Anatel has determined, for the next year, to contract consulting support, in collaboration with the ITU, to study: the impacts of latest technological developments, the substitution of hardware by software in platforms of telecommunication services, the digitalisation of signals in the provision of several types of services, and the multiservice transport networks and its applications. As a result, Anatel expects to obtain an accurate analysis of the present and future scenarios, as well as of the risks and opportunities for the development of telecommunications sector, including broadcasting and information services, a description of future scenario for technological development for this sector and how these elements can affect the many different forms of telecommunications (transmission of voice signals, video data, and multimedia, etc.) in urban and rural areas. Proceeding in this way, Anatel can constitute a regulatory and licensing framework capable of promoting the harmonic development of telecommunications, redefine an organisational structure of the Agency and establish a plan of action in this regard.

Conclusion

While the process of technological convergence evolves throughout the world, political strategies need to be found in order to indicate at what point the rhythm for establishing convergence services can be accelerated, thereby we all share the same idea on the direction the global society is heading. Going back to the concept of evolutionary progress in which telecommunication, broadcasting and computer technologies have engaged, it can be said that digital environment established the direction for a ubiquitous provision of convergent services in the near future.



Documentos del Simposio sobre desarrollo para organismos reguladores (DSR) 20 – 22 de noviembre de 2000 – Ginebra, Suiza

Documento No. 51

Situación del regulate

REGULATEL

REGULATEL

REGULATEL se crea el 25 de septiembre de 1998, en Antigua, Guatemala, conformándolo hasta ahora los países de Argentina, Bolivia, Brasil, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, México, Nicaragua, Panamá, Paraguay, Perú, República Dominicana y Venezuela, y se rige por una Acta Constitutiva del Foro de Entes Reguladores Latinoamericanos de Telecomunicaciones.

REGULATEL fortalece la iniciativa de los países latinoamericanos para contar con una mayor presencia internacional proyectando los intereses comunes, al tiempo que constituye el mecanismo para promover los avances en materia de telecomunicaciones de cada país y de la región en su conjunto. Asimismo, el diálogo entre reguladores, permitirá atender oportunamente los temas relacionados con los avances tecnológicos que incidan en la regulación de los servicios en los países miembros.

Este foro opera dinámicamente a través de una organización que aprovechará la infraestructura existente de las telecomunicaciones de cada país miembro, para que, en forma virtual, se realicen intercambios de información y experiencias entre los países de la región.

Los objetivos de REGULATEL son:

- Facilitar el intercambio de información sobre el marco y la gestión regulador, los servicios y el mercado de telecomunicaciones entre los países miembros del Foro,
- 2) Promover la armonización de la regulación de las telecomunicaciones para contribuir a la integración de la región, e
- 3) Identificar y defender los intereses regionales buscando posiciones comunes en foros internacionales.

REGULATEL, se reúne una vez al año, determinando que sus actividades estarán orientadas, entre otras a:

- promover la inversión,
- alentar la competencia,
- brindar certidumbre jurídica al inversionista,
- facilitar la cobertura universal de servicios básicos de telecomunicaciones y aquellos servicios con beneficios sociales tales como la educación a distancia, telemedicina y seguridad pública, etc.

DECLARACION DE OAXACA

Los presidentes, directores y representantes de los Entes de Regulación de Telecomunicaciones en Latinoamérica reunidos en el Foro Latinoamericano de Entes de Regulación de las Telecomunicaciones - REGULATEL, en la plenaria del Foro celebrada en Oaxaca, México entre el 8 y 10 de septiembre del 2000, declaramos:

Somos conscientes que los avances en materia de comunicaciones y tecnologías de la información generan innumerables oportunidades para el desarrollo individual y colectivo de nuestras sociedades y el crecimiento de nuestras economías, por tanto las organizaciones a cargo de la regulación de las telecomunicaciones poseen una enorme responsabilidad en promover el rápido acceso a la sociedad de la información para atenuar la brecha entre los países info-pobres e info-ricos.

Afianzaremos el intercambio permanente de información y experiencias sobre el marco y la gestión reguladora como elemento de unión y desarrollo para el sector de las telecomunicaciones de la región y la incorporación de nuestros países a la nueva economía.

Impulsaremos iniciativas regulatorias regionales para obtener beneficios mutuos, reconociendo el interés particular de cada uno de los entes reguladores, tal como lo vienen haciendo otras regiones y propenderemos por alcanzar posiciones comunes en reuniones de organismos internacionales en los que se están discutiendo asuntos de gran impacto económico para Latinoamérica.

Consideramos trascendental para los países de la región aprovechar el impulso de las actividades relacionadas con la Internet como palanca para el crecimiento, modernización y desarrollo, por ello la regulación y los órganos reguladores juegan un papel esencial para eliminar las barreras que impidan el desarrollo de las aplicaciones y servicios en la nueva economía.

Es importante establecer estrategias comunes para aumentar y mejorar la conectividad de los países latinoamericanos dentro y fuera de la región, para aprovechar las ventajas de la red y acceder con facilidad a la infraestructura global de la información.

Los reguladores agrupados en REGULATEL compartimos la preocupación sobre el tema de Cargos Internacionales por el Acceso a Internet al igual que la región de APEC y reafirmamos la importancia que representa la compartición equitativa de cargos y otros arreglos de beneficio mutuo en esta materia necesarios para la expansión de la infraestructura de la información.

Señalamos que más de 500 millones de habitantes del planeta hablan español y portugués, pero solo el 4% de las páginas de Internet usan estos idiomas. Es fundamental para alcanzar el objetivo de la masificación de Internet, promover el

desarrollo de contenidos en los idiomas, así como en las lenguas nativas de los países de la región.

Somos conscientes de que el servicio universal debe contemplar el acceso confiable y asequible a la red en las comunidades de bajos ingresos permitiendo que Internet se materialice, teniendo en cuenta las singularidades de cada país.



Documentos del Simposio sobre desarrollo para organismos reguladores (DSR) 20 – 22 de noviembre de 2000 – Ginebra, Suiza

Documento No. 52

Generación de Sinergias como Modelo Regulatorio

Nestor Roa-Buitrago, Comision de Regulacion de Telecomunicaciones (CRT)

COMISION DE REGULACION DE CRT

Generación de Sinergias como Modelo Regulatorio

Documento preparado por la Comisión de Regulación de Telecomunicaciones de la República de Colombia



Simposio sobre Desarrollo para Organismos reguladores

Ginebra, 20 – 22 de noviembre del 2.000

Septiembre, 2.000

COMISION DE REGULACION DE TELECOMUNICACIONES



1. **INTRODUCCION**

En el presente documento se describe la estrategia de desarrollo adoptada por el regulador de telecomunicaciones de Colombia, basada en la generación de sinergias entre gobierno, empresas y usuarios de los servicios de telecomunicaciones. Describe la estructura organizacional orientada por procesos y el modelo regulatorio adoptado por la CRT resultado de su estrategia y propone la convergencia regulatoria para los reguladores en Latinoamérica como punto vital en la integración regional.

2. ESTRATEGIA DE DESARROLLO

Las telecomunicaciones son un factor estratégico para el desarrollo del país y su competitividad internacional, los cuales se logran mediante un alto grado de efectividad en el ejercicio de la libre y leal competencia, garantizada por el Estado. El concepto global de la Comisión de Regulación de Telecomunicaciones de Colombia (CRT) parte de este principio que destaca el papel de las telecomunicaciones como medio para el desarrollo, no como un fin. Es claro que si las telecomunicaciones no tienen un impacto real sobre los sectores productivos de la economía y sobre la calidad y modo de vida de los ciudadanos, no tienen razón de ser.

La CRT creada en 1.994 tiene el propósito de promover tanto el desarrollo del Sector, como la prestación eficiente de los servicios de telecomunicaciones a todos los habitantes del territorio nacional, dentro de los lineamientos definidos por el Estado. Para la CRT los medios para lograr lo anterior son:

✓	Una regulación clara, confiable y consistente.	√	La promoción de altos niveles de calidad en los servicios	~	La integración del sector de las telecomunicaciones de Colombia al ámbito
✓	La promoción de la				internacional
	competencia en el Sector. ✓	~	La promoción de la inversión en el Sector		

La visión de la CRT es la de ser reconocido como organismo técnico *generador de sinergias* entre el Estado, las Empresas y los Usuarios de los servicios de telecomunicaciones. Para generar sinergias es indispensable ser un factor multiplicador de los tres agentes de la economía anteriormente mencionados y por lo tanto un creador de valor agregado. Por esto, el marco regulatorio debe ser proactivo, claro, imparcial, estable y que regule lo mínimo posible. Debe proteger al usuario, procurar la mayor cobertura de los servicios y permitir el libre desarrollo del mercado y su integración con los mercados internacionales.

Igualmente fundamental, para el proceso de desarrollo y la generación de valor, es el ser una organización que promueva permanentemente la adecuada incorporación de los desarrollos tecnológicos (técnicos, financieros, comerciales, administrativos, de mercadeo, etc.) al Sector de Telecomunicaciones de acuerdo con las características del país.

De otra parte, la Cultura Organizacional es la base de un regulador de estas características, por esto es primordial para la organización la consolidación de una cultura organizacional fundamentada en los principios de Respeto, Responsabilidad y Justicia; y en los valores de Creatividad, Calidad, Desarrollo y Trabajo en Equipo que afiancen la entidad como una organización abierta, dinámica y efectiva.





En resumen, la ecuación de desarrollo del sector de telecomunicaciones se reduce a la suma de los tres agentes de la economía, en un sector específico en convergencia como el de telecomunicaciones, con un organismo regulador autónomo e independiente que actúa como multiplicador y generador de sinergias entre los actores:

 $Desarrollo = (Empresas + Usuarios + Gobierno)^{F(x)} donde,$

Regulador Autónomo e Independiente = F(x)

X=(Regular lo mínimo Posible, Protección al Usuario, > Cobertura de Servicios, Libre Desarrollo del Mercado, Integraciones Regionales)

El proceso de generación de sinergias se puede resumir en el gráfico 1.1. que recoge las relaciones entre usuarios, empresas y gobierno, y ubica al organismo regulador como un creador de valor:



El gráfico 1.2. muestra la evolución de los organismos reguladores en el mundo en donde el papel del regulador en la nueva economía cambia radicalmente. En mercados que antes eran monopólicos y hoy son convergentes, su papel cambia de regulador a promotor con la necesidad de integrar los marcos normativos regionales.

Por último la generación de sinergias en la nueva economía no puede ser un trabajo aislado de cada país, debe responder a políticas de desarrollo conjuntas entre países vecinos con características económicas similares.
COMISION DE REGULACION DE TELECOMUNICACIONES

3. MODELO REGULATORIO

El valor agregado del regulador es entonces la visión planteada por la CRT. Antes organizada en una estructura funcional, ahora la entidad está orientada por procesos con una estructura orgánica totalmente plana y matricial, donde la asignación de recursos a los diferentes procesos se realiza de manera dinámica según la demanda y el perfil académico de la gente.

En términos generales la estructura organizacional de la CRT (Gráfico 2.1) para la generación de sinergias consiste de tres procesos críticos y tres de apoyo, y la dirección del Comité de Expertos cuya cabeza es el Director Ejecutivo de la entidad:





En primer lugar el mercado de telecomunicaciones como otros, presenta imperfecciones que deben ser corregidas por agentes externos cuando las fuerzas internas del mercado no son suficientes. El monitoreo constante al mercado, el seguimiento y mantenimiento continuo a la regulación y las decisiones regulatorias ante solicitudes de los diferentes actores son algunas de las actividades del proceso de *Regulación y Asesoría*.

Seguidamente y como reacción natural de respuesta a la competencia, los operadores incumbentes tienden a mantener su condición de único en el mercado, dificultando la entrada a los nuevos operadores en sus nichos. Por esto el proceso de *Solución de Conflictos*, totalmente orientado hacia la mediación y no al arbitramento, garantiza la resolución de diferencias entre los actores, no solo expidiendo un marco general para la causa, sino capacitando a los representantes de los operadores de tele comunicaciones en cualquier tipo en temas de negociación.

Tercero, el proceso de *Mercadeo*, además de administrar la actividad de atención al cliente en donde se tramita todo tipo de solicitudes provenientes desde usuarios hasta inversionistas, con base en la información que maneja, envía señales al mercado para hacerlo reaccionar, sin necesidad de tomar medidas normativas. Tal es el caso de los reportes sobre comportamientos de las tarifas de un mercado específico, e incluso proyecciones emitidas por la entidad.

De otro lado, la necesidad de promover permanentemente la adecuada incorporación de los desarrollos tecnológicos, entendiendo tecnológicos como todas las características del negocio de telecomunicaciones





(técnicas, financieras, comerciales, administrativas, de mercadeo, etc.) es la actividad principal del *Centro de Conocimiento del Negocio*. Allí se investiga profundamente el mismo y se desarrollan productos regulatorios de avanzada que no necesariamente son textos normativos sino mecanismos, herramientas, etc. que permitan regular lo mínimo posible. La integración de las telecomunicaciones colombianas al ámbito internacional es tema constante de investigación y desarrollo en este proceso.

Por su parte, la administración de los recursos humanos, físicos y financieros son la actividad principal del *Centro de Sistemas de Gestión*. Finalmente, el *Centro de Sistemas de Información* desarrolla y mantiene actualizados los sistemas de información interno y externo de la entidad, consolidando la mayor cantidad de información posible para permitir a los organismos de control del Estado acceder a él y así disminuir los costos que se generan para las empresas por este concepto.

4. CONVERGENCIA REGULATORIA

El valor agregado que un regulador del sector de telecomunicaciones le puede generar al mercado es inmenso, sin embargo esta posibilidad es mucho mayor si las acciones de los reguladores son conjuntas y responden a lineamientos de un organismo supranacional, legítimamente reconocido por las administraciones de cada uno de los países.

En un mundo globalizado, es necesario integrar los mercados para hacer de éstos nichos importantes con masas críticas relevantes que fomenten la inversión. Por ejemplo, en Latinoamérica existen más de 15 reguladores de telecomunicaciones, cada uno con políticas que en algunos casos pueden diferir, lo que hace que dicha integración sea más difícil de concretarse.

En la nueva economía, las fronteras tienden cada vez más a desaparecer. No tiene sentido que empresas basadas en comunidades virtuales independientes del origen de las personas o la cultura de la que provengan, tengan que responder a 5 legislaturas distintas, si se trata por ejemplo de una comunidad virtual de la regiónandina.

El gráfico 3.1. muestra algunos de los reguladores en Latinoamérica, que como respuesta a los acuerdos de liberalización suscritos ante la Organización Mundial del Comercio se han ido creando en la región. El siguiente paso entonces es darle legitimidad y el suficiente impulso a los acuerdos regionales internacionales en todos los temas que tengan que ver con telecomunicaciones y las tecnologías de información.







Gráfico 3.1.

5. CONCLUSIONES

- ✓ La estrategia de desarrollo basada en generación de sinergias adoptada por la Comisión de Regulación de Telecomunicaciones es una propuesta dirigida a reguladores de tercera generación, en donde los más importante es darle valor agregado al sector, en un mercado convergente, en competencia y migrando a redes de conmutación de paquetes.
- ✓ La estructura organizacional de los reguladores de telecomunicaciones debe responder a la estrategia de desarrollo propuesta por cada país. La propuesta implantada por la CRT en Colombia desde finales del año 1.999 es una organización orientada por procesos, basada en un modelo de generación de sinergias entre los actores del sector.
- ✓ La integración regional es vital en la nueva economía, por lo que es necesaria la convergencia regulatoria. Para que efectivamente se de dicha convergencia las administraciones en cada país deben dar legitimidad a los acuerdos supranacionales, de manera que las decisiones que se tomen sean de carácter obligatorio en cada uno de los países, y efectivamente se logre la integración.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 53

Synergy Creation as a Regulatory Model

Nestor Roa-Buitrago, Comision de Regulacion de Telecomunicaciones (CRT)

COMISION DE REGULACION DE TELECOMUNICACIONES



Development Symposium for Regulators

Synergy Creation as a Regulatory Model

Nestor Roa Buitrago - Executive Director

Geneva, 20 - 22 November 2.000

Colombia



Contenido

Development Strategy

- Regulation Model
- Regulatory Convergence

Global Concept



Telecommunications are an strategic factor

Regulators Evolution



3rd Generation Regulators will deal with convergence, proactive promotion of the information society development and regional integration

Telecoms Sector Development Equation:

Development = Companies + Users + Government

The independent and autonomous Regulator? $F(\overline{x})$

Development = (Companies + Users + Government) F(x)

 X= (Regulate as little as posible, Consumer Protection, Universal Service

 Free Market Development

 Regional Integration)

The Synergy-Creation Process...



Contenido

- Development Strategy
- Regulation Model
- Regulatory Convergence

Colombian Regulator Structure for Synergy-Creation, Process Oriented



To regulate as minimum as possible...

Regulation & Advising



Decisions solving market distorsions

Decisions are not necessarily norms, there are other mechanisms and tools to regulate.



Mediation-Oriented Process



Information making the market to react....



The Knowledge Creation Process..



Contenido

- Development Strategy
- Regulation Model
- Regulatory Convergence

Synergy creation must extend to common markets....





Conclutions

- The development model based on synergy creation makes the regulator a value generator to the sector and not just an actor
- The regulator's organizational structure must be based on the country's development model, in the case of Colombia the answer was a process oriented entity
- The regional integration is vital in the new economy, administrations must give *legitimacy to supranational organizations* in each country to make decisions mandatory across the board

Thank you

For further Information:

http://www.crt.gov.co

atencioncliente@crt.gov.co

Carrera 11 No. 93 - 46 Piso 2 Bogotá D.C., Colombia Tel.+ 57 1 635 5550 Fax. + 57 1 635 5551



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 54

The Dimensions of Establishing an Independent Regulatory Authority

S. Bernhardt, Telekom Control

Our Sites News Events Publications Site Map About Us

Français | Español Print Version



<u>Home : ITU-D : Regulatory and Market Environment</u> : <u>Seminars, Workshops etc</u> : <u>GSR history</u> : <u>Regulators' Symposium - 1st edition</u>

Search

I Anhang

The Dimensions of Establishing an Independent Regulatory Authority

After almost three years of having entirely opened up the Austrian telecommunications markets dramatic changes have taken place. A huge number of interesting telecommunications services have been introduced, mobile communications and the internet market are booming. New services like WAP or the issue of broadband access to the internet have raised widespread public attention. UMTS/IMT 2000 frequencies have been allocated, new access technologies in the fixed network such as WLL , powerline and the more efficient use of the subscriber line will turn the access market into a more competitive field providing a variety of choice for the customer.

Almost nobody doubts anymore that the ambitious program of the European Union to liberalise the telecommunications markets has turned into a great success. With respect to this Telekom Control (Ltd), the Austrian Telecommunications Regulatory Authority is pleased to present some insights and experience from a managerial viewpoint on how an independent regulator for telecommunications operates.

To understand the Austrian case it is necessary to give a short introduction beforehand of the players in the field of telecommunications regulation, what their responsibilities are and how they cooperate.

The major players in the field of telecommunications regulation in Austria

Telekom-Control-Kommission (TKK), Telecom-Control-Commission:

The responsibilities of the TKK are listed in § 111 TKG (Austrian Telecommunications Act). Among other things its most important tasks are:

- Granting and revocation of licenses
- Defining operators having significant market power
- Approval of business conditions and tariffs
- Deciding on the conditions of network interconnection in the event of disputes (i.e. interconnection tariffs)

Telekom-Control GmbH (TKC), Telecom Control (Ltd.)

TKC is a private limited not for profit company, wholly owned by the Republic of Austria with its shares being administered by the Federal Ministry for Transport, Innovation and Technology. The nominal capital of TKC is ATS 50 m (= EUR 3,63). The General Manager of TKC is Professor Heinrich Otruba, who leads a company of 60 employees with a turnover of approx. ATS 100 m (= EUR 7,27 mio). According to § 109 TKG TKC holds a so-called general competence in all matters concerning telecommunications regulation in Austria within the scope of the Telecommunications Act except those issues covered by the TKK and the OFB. Among other things its most important tasks are:

- Supervision (monitoring) of the Austrian telecommunications market
- Providing expertise for the decisions of the Telekom-Control-Commission
- Management of the Telekom-Control-Commission's business
- Proceedings in cases of violations of the Open Network Provision

 Administration and allocation of telephone number blocks according to the Austrian numbering scheme Decisions in cases of arbitration (consumer bills)

Bundesministerium für Transport, Innovation und Technologie (bmvit) Federal Ministry for Transport, Innovation and Technology

Generally speaking the Ministry is in charge of formulating and implementing the telecommunications policy in Austria. All responsibilities derived from that are borne by the so-called Oberste Fernmeldebehörde (OFB), Highest Telecommunications Authority, a section within the Ministry for Transport, Innovation and Technology. Among other things its most important tasks are:

- Supervision of all "public sector players" except the Telekom-Control-Commission
- Drafting suggestions concerning amendments to the Telecommunications Act
- Drafting and issuing of ordinances according to the Telecommunications Act
- Frequency Management

How TKK and TKC collaborate

The TKK is the decision making body in all aspects touching property rights of legal entities. Its managerial body is Telecom Control (TKC). TKC prepares the proceedings, drafts the documents and manages the daily business of the Commission. TKC is the "think tank" empowered and controlled by the TKK in its proceedings. In addition TKC is also the managerial body for the supervision of electronic signatures with the TKK being again the decision making body.

The flowchart below may help to understand how collaboration between the different players - with a focus on the key issues handled by the TKK - works.

Figure 1: The collaboration between TKK and TKC

The Dimensions of Independence

According to the intentions of the telecommunications regulatory framework of the European Union the national regulatory authorities are to be established as independent bodies carrying out the respective European stipulations as transposed into national law. They are not only administrative bodies having a close look on whether or not the operators and especially the former incumbent act within the rules as laid down in their respective Telecommunication Acts; moreover they are supposed to play an active role in promoting and fostering competition on the relevant markets irrespective of interests articulated more or less accurately by operators and owners of operators. Telecom Control (Ltd) identifies three dimensions that define the level of independence a regulatory authority benefits from and respectively is able to achieve:

a) Independence from interests articulated by the owner(s) of the former incumbent operator,

- b) Independence in terms of human resources and
- c) Independence in financial terms.



Figure 2: The Independence Triangle

Independence from the federal government in its role as administrator of the shares of the former incumbent

It is crucial for the success of an independent regulator to have no subordination in terms of regulatory work to any member of the federal government, especially to that ministry in charge of administrating the rights derived from holding a significant stake in the former incumbent if that is still the case. In Austria this is clear cut and has been laid down in the Telecommunications Act. The sole way to exercise preasure on the regulatory body by the government, i.e. the federal minister in charge of telecommunications policy is to give directives in writing that have to be published. This right is restricted to administrative issues only and cannot be extended to any regulatory matter.

Independence in terms of human resources

If the regulatory authority fails to build up an unbiased expertise it may fail to make a clear point in case of criticism. If substantial know-how is derived from experts with an enduring working relationship in their past with the former incumbent the rumours of unbalanced perspectives may be hard to overcome. TelecomControl (Ltd) therefore was keen to gather human resources from other areas than the former incumbent operator. Preferred fields of recruitment have been universities, research institutions (e.g. Academy of Sciences), telecommunications equipment vendors, civil service, etc. All employees hold exclusively contracts of employment with Telecom Control (Ltd). TKC searched for young, excellent, it-prone experts with a high affinity towards "growing" and good social skills (project teams, task forces, process driven thinking).

Independence in financial terms

According to § 17 (2) Telecommunications Act, TKC is mainly funded through a financial contributions system based on the turnovers generated by operators offering license-based services in Austria. The basis of the funding system is TKC's annual budget that has to be approved by Telecom Control (Ltd)'s supervisory board. Operators offering license-based services have to notify their planned turnover for the respective year. Their funding shares are computed based on these pieces of information and the individual funding requirements are then issued as decisions and delivered to the license holding companies. The licensees are requested to pay their funding contributions quarterly. At the end of the year the actual expenses of TKC and the actual turnovers generated from "licensed services" of all operating licensees are matched and the actual funding requirements are closed mostly leading to refunds transferred to the operators. This funding system was accepted well by the operators and has been employed successfully from the first budget in 1998 until now. In addition to these funding sources (accounting for more than 90% of TKC's budget) another source of revenue is upfront license fees for granting fixed line voice telephony and leased line services covering the expenses derived from the proceedings of license granting.

II The Company Organisation Structure of TKC

Telecommunications regulation is a transdisciplinarian task. Technical, cost accounting, economics and legal know-how have to be brought together in order to find good solutions to problems arising when network industries are forced into competition. Telekom Control (Ltd) was established with the idea of creating a regulatory authority that relies on modern principles of management and leadership. It was intended to build up a lean organisation with as few levels of hierarchy as possible. At present there are just two levels with the General Manager and his division heads. The division heads are top telecom experts in their respective disciplines expected to lead their analysts as their division 's knowledge managers. The heads are in charge of procuring the skills, knowledge and experience necessary to deliver excellent regulatory expertise. The Management Division has to preserve the working environment for the specialists of the regulatory divisions. The staff units ' main task is to support the General Manager in his daily work and leadership responsibilities comprising international relations, public relations and accountability management. At present the organisation chart of TKC looks as follows:

Figure 3: Organisation Chart

Ш

The Structuring of Operations at Telecom Control (Ltd)

As mentioned above Telekom Control (Ltd) was established with the idea of creating a regulatory authority that relies on "modern" principles of management and leadership. That does not only apply to the way the organisation was designed but also to how the organisation works. Quite deliberately there was no intention of establishing highly specialised departments capable of delivering focused - or to be less polite, narrow minded - expertise but perform inefficiently when it gets down to answering general questions such as forecasted impacts of regulatory measures. In case of highly specialised departments one gets precise answers to precise questions. The overall picture often remains unclear and foggy. Hence it appeared to be necessary to create knowledge pools (the divisions) that serve as platforms for flexible and transdivisionally formed project teams or task forces that deal simultaneously with regulatory problems. E.g., for allocating a fourth national DCS-1800 license in mid 1999, TKC established a project team consisting of analysts from all four regulatory divisions that produced all the documents necessary for the proceedings led by the Telecom-Control-Commission. The same approach is applied in the case of task forces on regulatory issues requiring fewer resources than projects. The project organisation at TKC may be illustrated schematically as follows:



Besides task forces and projects a substantial work load of repeatedly occurring regulatory or administrative matters are dealt with through processes. These processes are characterised as being eligible for (a certain degree) of standardisation and cross-functional lines of communication irrespective of divisional borders or gaps. The process of granting a license may serve as an example, schematically presented in figure 5:

Figure 5: Process orientation at Telecom Control (Ltd)

The key factors for TKC's success so far could be summarised as follows:

- Workable legal basis (Telecommunications Act and ordinances)
- Appointment of a truly independent Telekom-Control-Commission
- Appointment of a General Manager with an excellent reputation and standing on both sides, politics and industry
- Good quality of regulatory decisions (formally and in respect of content)
- Highly motivated group of excellent employees keen on advancing
- Adequate principles of management and leadership (process- and team orientation)

 Office concept including architecture and IT infrastructure fitting and fostering TKC's corporate culture

> Top - Feedback - Contact Us - Copyright © ITU 2007 All Rights Reserved Contact for this page : BDT Support Updated : 2006-08-21



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 55

"How to address Convergence: The European Commission's proposals for a new regulatory framework"

Alison Birkett, European Commission



European Commission How to address Convergence: the European Commission's proposals for a new regulatory framework

Development Symposium for Regulators, 20-22 November 2000, Geneva

Workshop A: The Impact of Convergence on Regulators, 22 November

Alison Birkett, DG INFSO, European Commission



European Commission

The need to overhaul the 1998 telecoms framework

- Adapt the framework to technology-driven market changes (convergence, Internet, e-commerce, etc.)
- Amplify the benefits of competition for users (choice, prices, quality)





- Ex-ante regs to be rolled back as competition develops
- Regulate only where there is market failure



European Commission

The new package



Simplification, clarification

European Commission

Services Directive (90/388/EEC) extended to: Satellite (94/46/EC) Cable (95/51/EC) Mobile (96/2/EC) Full competition (96/19/EC) Cable ownership (1999/64/EC)

ONP Framework Directive (90/387/EEC amended by 97/51/EC) Licensing Directive (97/13/EC) GSM Directive (87/372/EEC) ERMES Directive (90/544/EC) DECT Directive (91/287/EEC) S-PCS Decision (97/710/EC) UMTS Decision (99/128/EC) European Emergency Number Decision (91/396/EC) International Access Code Decision (92/264/EEC) **ONP** leased lines Directive (92/44/EEC amended by 97/51/EC) TV standards Directive (95/47/EC) Interconnection Directive (97/33/ EC amended by 98/61/EC) Voice telephony Directive (98/10/EC) Telecoms data protection Directive (97/66/EC)

Liberalisation Directive

Framework Directive

Authorisation Directive

Access & Interconnection Directive

Unbundled local loop Regulation

Universal service Directive Data protection Directive

European Commission

Framework directive: horizontal tasks and common provisions

Scope and definitions

- electronic communications services, networks and associated facilities
- National Regulatory Authorities (NRAs) rights and obligations

• independence; right of appeal; transparency mechanism

Horizontal functions of NRAs

 objectives and principles; radio spectrum; numbering; rights of way & facility sharing; accounting separation

Common provisions

 SMP; market analysis; harmonisation procedures; Communications Committee; high level communications group (HLCG)


SIGNIFICANT MARKET POWER -'NEW SMP'

An NRA would designate an undertaking as having SMP where it was:

DOMINANT (singly, jointly, or by leveraging dominance into a related market where it had a leading position) AND

• EITHER INCUMBENT (i.e. having benefited from special/exclusive rights) and existence of barriers to entry;

• OR VERTICALLY-INTEGRATED and owning facilities to which its downstream competitors necessarily require access to compete.

Common provisions: procedures for ex ante regulation

European Commission

> Commission Decision identifies candidate markets for regulation

NRA analysis: effective competition?

(on basis of Commission Guidelines)







Access and Interconnection Directive

- To establish common rules for the wholesale market between suppliers of networks and services
- To provide continuity with Interconnection Directive and TV Standards Directive, while providing for existing obligations to be modified or withdrawn
- To allow NRAs to deal with new access issues, based on analysis of the market



ACCESS PRINCIPLES

- Reliance on competition and commercial negotiations
- Regulatory intervention only when market analysis reveals insufficient competition (new SMP test)
- Range of regulatory obligations to be limited (transparency, non-discrimination, accounting separation, access, price regulation)
- Type of obligation to be proportionate to the problem



AUTHORISATION DIRECTIVE

 All electronic communications services and networks covered by a general authorisation with notification procedure only

Individual rights of usage only for radio frequencies and numbers

 Declarations of rights under general authorisation if necessary



Directive on Universal Service and Users' Rights

• Universal Service Obligations

- Scope clarified to include Internet dial-up
- Special facilities for consumers to monitor and control expenditure
- Special measures for disabled users and users with special social needs
- Adds review procedure for re-defining scope

• User Rights

- Retail Price regulation
- General Rights
 - Contracts
 - Reinforces monitoring of Quality of Service
 - Extends number portability to mobile networks



Directive on Data Protection An Amended Directive

Data protection regardless of technology

 Extends privacy safeguards for the use of location data to mobile users with exception for emergencies

 Right to determine whether or not to be listed in a public directory, and how

 Prohibits unsolicited emails (so-called 'spam') except where subscribers have 'opted in'



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 56

Becoming an Effective Regulatory "Referee"

Fred B. Bigham, LOBA Limited

BECOMING AN EFFECTIVE REGULATORY REFEREE

Fred G. Bigham Senior Regulatory Consultant Loba Limited Ottawa Canada

A skilled referee for a soccer game understands and carries out a regulatory function. A well regulated game is one in which the referee is virtually unnoticed — but more of this later. In what follows, the focus is on telecommunications regulatory agencies with the discussion organized around seven questions:

- (1) What prompted a few countries to establish regulatory agencies in the early twentieth century?
- (2) Why have many countries established regulatory agencies late in the twentieth century?
- (3) What then is at issue if a country decides to establish a regulatory agency?
- (4) What agenda must be addressed by regulatory agencies?
- (5) What assistance is available to a country to establish its Agency and begin addressing its regulatory agenda?
- (6) What assistance has Canada provided in the 1995-2000 period?
- (7) Based on these Canadian assistance programs, what observations and lessons can be drawn?

(1) What prompted a few countries to establish regulatory agencies in the early twentieth century?

The call for the creation of regulatory arrangements, it could be argued, dates from 1670 with Lord Matthew Hale's judgement that facilitates designated to serve the public cease to be private and are "affected with the public interest". Late in the nineteenth century, enterprises fitting this description were more numerous, most notably the companies providing electricity and telephones in North America and Europe. European countries opted for government owned and operated "public" utilities — a pattern generally adopted throughout the world other than in the United States and Canada. These two countries, with some exceptions, opted for privately owned and operated utilities. They often operated as monopolies and in fact, found themselves characterized as "natural" monopolies.

How then did governments of the day address the potential abuse of market power by such monopolies "affected with the public interest"? In Canada in 1905 there was an intense Commons debate on whether The Bell Telephone Company should be publicly or privately owned. Private ownership was maintained but supplemented with the creation of a public regulatory agency. Similarly, both federal and state regulatory agencies were introduced in the United States. Broadly speaking, such agencies were given a mandate to ensure that rates charged were "just and reasonable" and this evolved into a revenue requirement standard that included the utility's operating expenses, depreciation, taxes

and a reasonable rate of return on a defined capital base. This era of "natural" monopolies with the requisite regulatory scrutiny and approval of prices and profits lasted for approximately 80 to 90 years.

(2) Why have many countries established regulatory agencies late in the twentieth century?

A confluence of factors has resulted in the formation of regulatory agencies throughout the world particularly in the last ten years. Two patterns have predominated. Firstly, dissatisfaction with both teledensity levels and the quality of existing telephone services in many countries prompted privatization initiatives as the means to garner both capital for network extensions and management and operational expertise. Secondly, the demonstrated and ever-improving capabilities of wireless technologies, coupled with government policies that favoured the entry of competing carriers, has put interconnection disputes between the existing and emerging networks on the regulatory agenda in many countries.

Prior to these developments there was no need for a regulatory referee in most countries as the mandate of the government owned and operated utility subsumed policy, regulatory and operational functions. The game changed in the late twentieth century. The need for a new government institution, the public utility regulatory agency, was definitively acknowledged in the WTO's Regulatory Reference Paper. Meanwhile, the United States, Canada, Great Britain, and Australia had begun their transition from monopoly to competitive market structures, which called for adaptations in each country's regulatory arrangements. Whether the task is one of establishing a regulatory agency for the first time or adapting an existing agency, the call for skilled and flexible "regulatory referees" was clearly evident around the world throughout the 1990's.

(3) What then is at issue if a country decides to establish a regulatory agency?

The decision to establish a distinct regulatory agency is usually taken in the context of other initiatives. The sequence of these initiatives may vary from country to country and certainly there will be differences in their detailed features of each step but they likely include some of all of the following:

- Delineation of the country's telecommunications policy framework and objectives;
- Separation of the postal and telecommunications operations;
- Separation of the telecommunications policy making and regulatory functions;
- Corporatization of the telecommunications operations;
- Privatization of the telecommunications operations;

- Passage of national telecommunications legislation which sets out the policy objectives and mandates a separate regulatory agency with its associated powers;
- Passage of supplementary legislation to establish the regulatory agency including the number of appointed Commissioners or Members with their associated qualifications and terms of office; the mechanisms to fund the Agency; and, the processes, if any, to be used to appeal decisions taken by the Agency.

(4) What agenda must be addressed by the Regulatory Agency?

Once these steps are taken the actual formation of a distinct Regulatory Agency can proceed. In my recent presentations for international delegations investigating the Canadian regulatory arrangements I have used the analogy of a theatrical event. Hence, the features of becoming and being a regulator are highlighted as "The Script, The Stage and The Performance".

The Script includes the passage of legislation with the requisite policy objectives and regulatory powers; the reporting relationships of the Agency; the funding mechanisms; the rules of procedure for the disposition of regulatory decisions including alternative dispute resolution methods designed to reach consensual and timely decisions in a competitive industry framework; and finally, the detailed processes to be followed should a stakeholder wish to appeal a formal decision of the Agency.

The Stage includes further details of the Agency's organizational structure with separate divisions, for instance, for technical, economic, spectrum management, legal and standard organizational matters (e.g. personnel, finance); specification of the staff competencies required to meet the various regulatory functions to be carried out by the Agency; the physical accommodations and equipment (e.g. furniture and computers) requirements; and, the internal decision making processes and structures.

Once the Script and the Stage are in place then **the Performance** may proceed and it includes the ongoing processes and proceedings whereby the Agency considers and makes decisions with respect to licensing entry into the telecommunications sector including the associated licensing for the use of the radio spectrum; the terms and conditions for the interconnection of separate networks (e.g. wireline vs. wireless); the pricing of telecommunications services, particularly those provided under market conditions with limited competitors; the costing approaches to be used to support price levels and structures, the establishment and monitoring of network quality standards; and the roll-out of a universal access policy framework. This list is not exhaustive and indeed within each of these "performances" there are a multitude of subsidiary matters to be addressed.

(5) What assistance is available to a country to establish its Agency and to begin addressing its regulatory agenda?

This question may be broken down into three aspects: Where does a country search for appropriate assistance? What options exist to fund access to such assistance? What approaches or venues exist to convey such assistance?

Brief answers to these three aspects are set out below based on the author's own experience. Discussions at this ITU Symposium, November 20-22 will, no doubt, add to and revise these notes.

Where does a country search for appropriate assistance?

Those countries with a telecommunications regulatory history include Australia, Great Britain, Canada and the United States. Therefore, in those countries one may contact the Government Ministry responsible for the telecommunications sector, the Regulatory Agencies, consultants (i.e. firms and individuals) and academic centres. The breadth and depth of expertise is considerable but as the question suggests the client country must endeavour to clearly identify its needs in order to seek and find the "appropriate" assistance.

What options exist to fund access to such assistance?

Funding is available from the World Bank under various programs; the regional Development Banks (e.g. Asian Development Bank); the foreign aid agencies (e.g. in Canada, the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC); and the ITU.

There are other sources which may be considered such as the Commonwealth Telecommunications Organization which runs multilateral programs and provides bilateral assistance with funding coming from the member countries.

In Canada, there is the Telecommunication Executive Management Institute (TEMIC) which for over twelve years has offered training programs for senior telecommunications staff from operating companies as well as government departments and regulatory agencies. Funding, in this case, comes from both Canada's public sector (e.g. CIDA and Industry Canada) and many private sector companies.

In the United States, there are three regulatory study programs, one conducted by the United States Technical Training Institute, a second program at Michigan State University which is marking its forty-second year and a third at the Public Utility Research Centre at the University of Florida.

What approaches or venues exist to convey such assistance?

Regulatory delegations have been visiting Canada throughout the 1990's but the volume of delegations increased markedly around 1995. Many such delegations request a one to three day visit with a combination Canadian Radio-television and Telecommunications Commission (CRTC), Industry Canada and private sector representatives (i.e. Industry Canada includes a large division responsible for all aspects of spectrum regulation and has the responsibility to establish and revise the country's telecommunications policy framework). These visits are usually fully funded by the visiting delegation and the advisory services of the Canadian officials are provided without charge.

Some delegations request a two to three week regulatory training program. In the last three years, a number of these programs have been provided in the country or region making the request. Again, these programs have been funded by CIDA or World Bank with payment of fees and expenses for any consultants on the teaching team and recovery of salaries and expenses for any Canadian government officials on the team (e.g. examples of such training programs is provided in Appendix A).

As already noted TEMIC continues to provide a set of regular training programs in Canada for private and public sector telecommunications officials. Travel, accommodation and related expenses are funded by TEMIC's Canadian sponsors (see www.temic.ca).

Approaches and venues in other countries include the multilateral and bilateral events organized by the Commonwealth Telecommunications Organization (see <u>www.cto.int</u>). Delegations may arrange visits with regulatory agencies in Britain, Office of Telecommunications (OFTEL <u>www.oftel.gov.uk</u>) and in Australia, Australian Telecommunications Authority (ACA).

In the United States, at the Federal Communications Commission (F.C.C.) there is an international assistance program initiated in the last two years by Chairman Kennard (see <u>www.fcc.gov</u>); numerous international conferences, particularly those with a focus on regulatory matters and issues; and, regulatory training programs organized by academic institutions such as Michigan State and University of Florida (see <u>www.bus.msu.edu/ipu</u> and <u>www.cba.ufl.edu/eco/purc</u>).

Last but not least, there is the initiative taken by ITU to assist in the establishment of Centres of Excellence (i.e. two in Africa, one in the Americas and one in Asia) aimed at linking existing training and research institutes in the respective regions. The African Centres are being implemented by the ITU under a formal agreement with Nortel Networks and Canada's Acacia Initiative of the International Development Research Centre. The initial mandate of these Centres will be to train public officials in policy and regulatory issues as well as provide specific advisory services.

(6) What assistance has Canada provided in the 1995-2000 period?

Beginning in June1995, among other matters, the author's responsibilities included:

- Co-ordinating and responding to numerous requests for presentations and training of international delegations made directly to the CRTC or through other government officials, (i.e. Department of Foreign Affairs and International Trade (DFAIT), Industry Canada, CIDA, IDRC); private sector, (e.g. Nortel); and other organizations (e.g. TEMIC, Universities, Law firms).
- Delivering one to three day custom-designed short programs focussed on the Canadian telecommunications regulatory framework usually with a team of government and private sector representatives.
- Delivering one to three week custom-designed seminars with workshops involving a selected team of instructors either in Canada or increasingly in the host country (funding agencies are usually CIDA or World Bank)
- Delivering presentations, workshops and lectures in Canada at conferences and universities.

Over the period 1995-2000, there has been an average of twenty delegations visiting Ottawa each year for the one to three day regulatory programs hosted by CRTC. There were numerous other delegations, not included in this total, hosted by the private sector and Industry Canada (e.g. interested in spectrum policy and regulation).

The more extensive one to three week regulatory programs run either in Canada or the host country jumped from an average of two per year in 1995 and 1996 to an average of six per year over the 1997-2000 period.

Other training programs which have required CRTC staff participation include TEMIC courses and trade missions organized by DFAIT. These programs have averaged four per year over the 1995-2000 period.

Appendix A provides examples of Canadian Regulatory Programs provided in the 1995-2000 period. Further details regarding such programs are available upon request.

Experience with such programs in the past five years suggests the following:

- Requests for assistance range from comprehensive introductions to what is required to establish a Regulatory Agency to more specific issue oriented seminars (e.g. Costing, Pricing and Interconnection Seminars).
- Preparation of a custom-designed program requires considerable preliminary dialogue with the client country with the intention that programs meet the expectations of most of the seminar participants.

- Experience suggests that particularly for the more issue-oriented seminars having both a Canadian instruction team and a host country audience with representatives from both the regulatory agency and the operating companies is an effective approach. It recognizes that the task of telecommunications regulation in any country requires that there be a professional respect and appropriate Cupertino between the Agency and the Companies subject to regulation.
- There is an inherent dilemma in any regulatory training program as examples and illustrations are drawn from the experience in Canada but the audience, for example, is from India or Colombia. We continue to learn how to deal with this dilemma primarily through dialogue sessions during the seminar possibly others at this ITU Symposium will have constructive observations to make in this regard.

(7) Based on these Canadian assistance programs, what observations and lessons can be drawn?

The essential ingredients required to produce a successful Regulatory Agency include:

- Clear and well-articulated national priorities and policy objectives.
- The political will in government to make it work.
- Strong regulatory leadership with a commitment to serve the public interest.
- Qualified professional regulatory staff with the appropriate competencies.
- Good management of the regulatory process with fair and open decisionmaking mechanisms accessible to all affected parties.
- Regulatory decisions that reflect the policy objectives in the enabling legislative and take into account the broad political goals of the government.

These ingredients represent a "cookbook" recipe but based on my experience and reflections during the last five years, may I offer these additional observations on what it's like "to prepare a real meal in the kitchen".

 Making the transition to an institutional arrangement which clearly separates the stewardship over the provision of telecommunications services; the formation and declaration of telecommunications policy; and, the identification and adjudication of regulatory matters is a trip fraught with delays, detours and dead-ends.

- Old patterns and habits are deeply ingrained with the result that the incumbent carrier(s) can forestall the effective entry of competing carriers.
- The government department(s) responsible for telecommunications policy, even after announcing a pro-competitive stance, can find themselves siding with the established carriers and through their interventions seriously weaken the credibility of the Regulatory Agency.
- Timely and effective implementation of network interconnection arrangements are of paramount importance to secure both the benefits of competition in the provision of telecommunications services and the establishment of a credible Regulatory Agency.
- There is a continuing need to squarely face the challenge of providing meaningful "universal access" just to ordinary telephone service let alone the provision of internet access the last ten years have yielded many real stories of successes and failures in the roll-out of universal access these stories must be told, reviewed, adapted and applied.
- There will be a temptation for new Regulatory Agencies to adopt rules of procedures consistent with conventional administrative experience and law. But, Regulatory Agencies should consider the adoption of alternative dispute resolution procedures (i.e. various combinations of mediation, negotiation and arbitration methods) particularly for interconnection and other issues arising in a competitive market.

Conclusion

Now back to that soccer game I mentioned at the beginning. A skilled referee knows the standard rule book but how many of us have watched a game in which the referee becomes too tight in his application of the rules with the result that the flow and excitement of the game is lost. Worse still is the game in which the referee reads the rule book tightly for one side and casually for the other. The biased calls seriously erode both the enjoyment and the integrity of the game.

We could go on with this analogy and, as with any analogy, some parallels are instructive and others are less so. Suffice to say that the task of effective regulation, whether it be a soccer game or your country's telecommunications sector, is a demanding but essentially a thankless task because if done well you will not be noticed but if done poorly you will be noticed only as a poor referee.

Finally may I offer a concluding word to those governing officials who write and revise the rule book (i.e. telecommunications legislation) to be followed by the assigned referees. Interventions and dare I say reversals of the referees calls must be kept to an absolute

minimum and if carried out must be and must be seen to be thoughtful and reasoned changes. To do otherwise not only erodes the referee's credibility but also may ultimately impact on the willingness of the players to play the game and the spectators desire to attend the game. Surely that is an outcome that is not in the interest of anyone.



Documents of the Development Symposium for Regulators (DSR) 20 – 22 November 2000 – Geneva, Switzerland

Document No. 57

Examples of Canadian Regulatory Training Programs

Fred B. Bigham, LOBA Limited

Not available

Pas disponible

No disponible

© International Telecommunication Union