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The Federal Communications Commission: Current Structure and its Role in the Changing Telecommunications Landscape

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The Federal Communications Commission: Current Structure and its Role in the Changing Telecommunications Landscape

Summary

The Federal Communications Commission (FCC) is an independent Federal agency directly responsible to Congress. It was established by the Communications Act of 1934 (1934 Act) and is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable. The mission of the FCC is to ensure that the American people have available — at reasonable cost and without discrimination — rapid, efficient, nation- and world-wide communication services; whether by radio, television, wire, satellite, or cable.

The agency is organized by function and is composed of six bureaus and 11 offices. This current structure was established in 2002 as part of the agency's effort to better reflect the industries it regulates. The bureaus process applications for licenses and other filings, analyze complaints, conduct investigations, develop and implement regulatory policies and programs, and participate in hearings, among other things. The offices provide support services. Bureaus and offices often collaborate and share expertise in addressing FCC issues.

The FCC is funded through the Science, State, Justice, Commerce (House) and Commerce, Justice, Science (Senate) appropriations process as a single line item. On June 7, 2005, the House Appropriations Committee approved a budget of $290 million, $9 million more than the FY2005 spending level, but $14 million less than requested in the President's budget. The Senate has yet to consider its version of the bill, which may contain a different funding level for the commission.

Although the FCC has restructured over the past few years to better reflect the industry, it is still required to adhere to the statutory requirements of its governing legislation, the Communications Act of 1934. The 1934 Act requires the FCC to regulate the various industry sectors differently. Some policymakers have been critical of the FCC and the manner in which it regulates various sectors of the telecommunications industry — telephone, cable television, radio and television broadcasting, and some aspects of the Internet. These policymakers, including some in Congress, have long called for varying degrees and types of reform to the FCC. Most proposals fall into two categories: (1) procedural changes made within the FCC or through Congressional action that would affect the agency's operations or (2) substantive policy changes requiring Congressional action that would affect how the agency regulates different services and industry sectors.

The evolution towards converged services and the increase in industry consolidation have contributed to a contentious telecommunications policy environment. The substantive changes to the 1934 Act that may be needed to enable the FCC to regulate most effectively could remain difficult to achieve. However, the FCC, without such a congressional mandate for change, may find it difficult to conduct its work under the restrictions of the 1934 Act. This report will be updated as needed.

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Background

The Federal Communications Commission (FCC) is an independent Federal agency directly responsible to Congress. It was established by the Communications Act of 1934 (1934 Act or "Communications Act)[1] and is charged with regulating interstate and international communications by radio, television, wire, satellite, and cable.[2] The mission of the FCC is to ensure that the American people have available, "without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nationwide, and worldwide wire and radio communication service with adequate facilities at reasonable charges."[3]

The 1934 Act is divided into titles and sections that describe various powers and concerns of the Commission:[4]

- Title I — FCC administration and powers. The 1934 Act originally called for a commission consisting of seven members, but that number was reduced to five in 1983. Commissioners are appointed

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[1] The Communications Act of 1934, 47 U.S.C. §151 et seq., has been amended numerous times, most significantly in recent years by the Telecommunications Act of 1996, PL 104-104, 110 Stat. 56 (1996). References in this report are to the 1934 Act, as amended, unless indicated. A compendium of communications-related laws is available from the House Committee on Energy and Commerce at [http://energycommerce.house.gov/108/pubs/108-D.pdf]. It includes selected Acts within the jurisdiction of the Committee, including the Communications Act of 1934, Telecommunications Act of 1996, Communications Satellite Act of 1962, National Telecommunications and Information Administration Organizations Act, Telephone Disclosure and Dispute Resolution Act, Communications Assistance for Law Enforcement Act, as well as additional communications statutes and selected provisions from the United States Code. The compendium was last amended on December 31, 2002.

[2] See About the FCC, available online at [http://www.fcc.gov/aboutus.html].

[3] 47 U.S.C. §151.

[4] When Congress established the FCC in 1934, it merged responsibilities previously assigned to the Federal Radio Commission, the Interstate Commerce Commission, and the Postmaster General into a single agency, divided into three bureaus, Broadcast, Telegraph, and Telephone. See Analysis of the Federal Communications Commission, Fritz Messere, available online at [http://www.oswego.edu/~messere/FCC1.html] and the Museum of Broadcast Communications Archive at [http://www.museum.tv/archives/etv/F/htmlF/federalcommu/federalcommu.htm] for additional information on the history of the FCC.

by the President and approved by the Senate to serve five-year terms; the President designates one member to serve as chairman. No more than three commissioners may come from the political party of the President. Title I empowers the Commission to create divisions or bureaus responsible for specific work assigned and to structure itself as it chooses.

- Title II — Common carrier regulation, primarily telephone regulation, including circuit-switched telephone services offered by cable companies. Common carriers are communication companies that provide facilities for transmission but do not originate messages, such as telephone and microwave providers. The 1934 Act limits FCC regulation to interstate and international common carriers, although a joint federal-state board coordinates regulation between the FCC and state regulatory commissions.

- Title III — Broadcast station requirements. Much existing broadcast regulation was established prior to 1934 by the Federal Radio Commission and most provisions of the Radio Act of 1927 were subsumed into Title III of the 1934 Act. Sections 303-307 define many of the powers given to the FCC with respect to broadcasting; other sections define limitations placed upon it. For example, section 326 of Title III prevents the FCC from exercising censorship over broadcast stations. Also, parts of the U.S. code are linked to the Communications Act. For example, 18 U.S.C. 464 makes obscene or indecent language over a broadcast station illegal.

- Title IV — Procedural and administrative provisions, such as hearings, joint boards, judicial review of the FCC's orders, petitions, and inquiries.

- Title V — Penal provisions and forfeitures, such as violations of rules and regulations.

- Title VI — Cable communications, such as the use of cable channels and cable ownership restrictions, franchising, and video programming services provided by telephone companies.

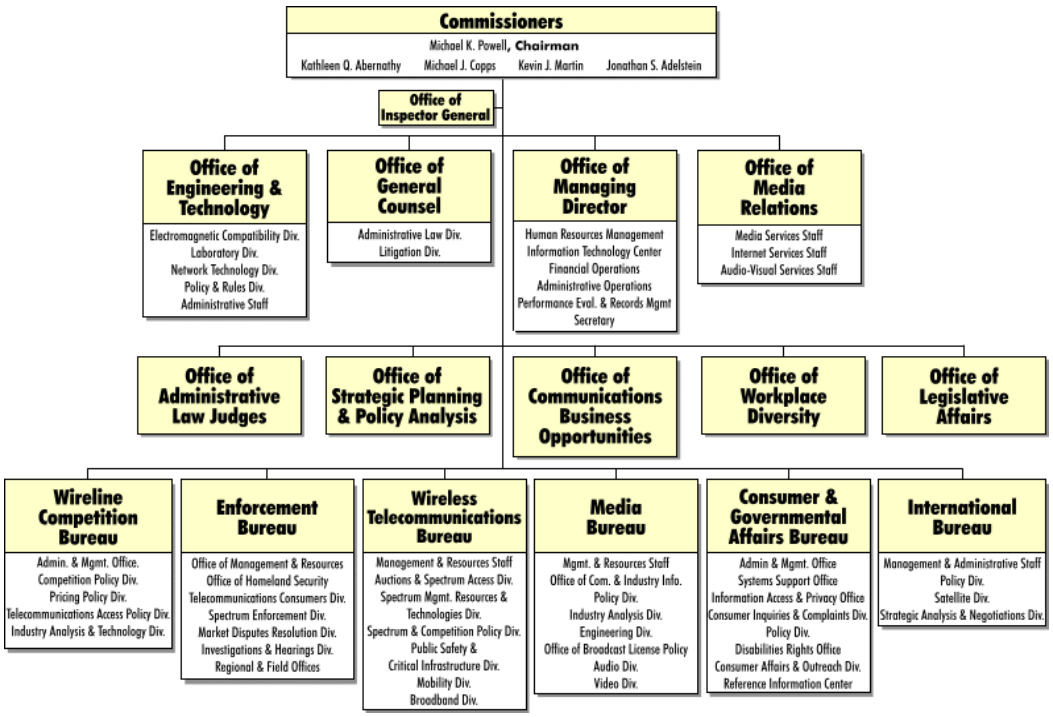
- Title VII — Miscellaneous provisions and powers, such as war powers of the President, closed captioning of public service announcements, and telecommunications development fund.

FCC Structure

The FCC is organized by function and is composed of six bureaus and 11 offices (See **Figure 1**, p. 3). This current structure was established in 2002 as part of the agency's effort to better reflect the industries it regulates. The bureaus process applications for licenses and other filings, analyze complaints, conduct investigations, develop and implement regulatory programs, and participate in

hearings, among other things. The offices provide support services. Bureaus and offices often collaborate when addressing FCC issues.[5]

Figure 1. Structure of the Federal Communications Commission



Source: *About the FCC: A Consumer Guide to Our Organization, Functions, and Procedures*. Available online at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/ DOC-229127A1.pdf].

The Bureaus hold the following responsibilities:

- Wireline Competition Bureau — Administers the FCC's policies concerning common carriers — the companies that provide long distance and local service to consumers and businesses. These companies provide services such as voice, data, and other telecommunication transmission services.

- Enforcement Bureau — Enforces FCC rules, orders, and authorizations.

- Wireless Telecommunications Bureau — Handles all FCC domestic wireless telecommunications programs and policies.[6] Wireless communications services include cellular, paging, personal

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[5] FCC Fact Sheet, available online at [http://www.fcc.gov/cgb/consumerfacts /aboutfcc.html].

[6] Except those involving satellite communications broadcasting, including licensing, enforcement, and regulatory functions. These functions are handled by the International Bureau.

communications services, public safety, and other commercial and private radio services. This bureau also is responsible for implementing the competitive bidding authority for spectrum auctions.

- Media Bureau — Develops, recommends, and administers the policy and licensing programs relating to electronic media, including cable television, broadcast television and radio in the United States and its territories.

- Consumer & Governmental Affairs Bureau — Addresses all types of consumer-related matters from answering questions and responding to consumer complaints to distributing consumer education materials.

- International Bureau — Administers the FCC's international telecommunications policies and obligations.

The only FCC office that conducts regulatory proceedings is the Office of Engineering and Technology, which advises the FCC on engineering matters. However, the Office of Administrative Law Judges also conducts hearings and issues initial decisions. Other offices are the Office of Communication Business Opportunities, Office of the General Counsel, Office of the Inspector General, Office of Legislative Affairs, Office of the Managing Director, Office of Media Relations, Office of Strategic Planning and Policy Analysis, Office of the Secretary, and Office of Workplace Diversity.[7]

FCC Budget

The FCC is funded as a single line item[8] through the Science, State, Justice, Commerce appropriations process in the House and the Commerce, Justice, Science appropriations process in the Senate. The direct appropriation to the Commission is significantly less than its budget because the FCC derives most of its funding through regulatory fees.

The FCC is funded through the Science, State, Justice, Commerce (House) and Commerce, Justice, Science (Senate) appropriations process as a single line item. On June 7, 2005, the House Appropriations Committee approved a budget of $290 million, $9 million more than the FY2005 spending level, but $14 million less than requested in the President's budget. The Senate has yet to consider its version of the bill, which may contain a different funding level for the commission. The FCC obtains the majority of its funding through the collection of regulatory fees pursuant

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[7] Responsibilities of each of the offices is detailed online at the FCC website at [http://www.fcc.gov/aboutus.html].

[8] For update-to-date status on the FCC section of the yearly Commerce-Justice-State Appropriations bill, see [http://www.congress.gov/brbk/ html/apcjs64.html].

to Title I, section 9 of the Communications Act of 1934; therefore, its direct appropriation is considerably less than its overall budget.[9]

Table 1 lists the total appropriation, direct appropriation, and regulatory fees offset for FY1999-2005.

Table 1: FCC Appropriations, FY1999-2005
$ in Millions

Fiscal Year	Total Appropriation		Direct Appropriation		Regulatory Fees Offset		
	Requested	Enacted	Requested	Enacted	Requested	Enacted	Actual
1999	212.9	192.0	40.4	19.5	172.5	172.5	172.5
2000	230.8	209.9	45.1	24.1	185.8	185.8	185.8
2001	237.1	230.0	37.0	29.9	200.1	200.1	200.1
2002	248.5	245.1	29.8	26.3	218.8	218.8	218.8
2003	278.1	271.0	29.9	2.0	248.2	269.0	265.7
2004	280.1	274.0	28.8	1.0	251.9	273.0	pending
2005	293.0	281.1	20.0	1.0	273.0	280.1	N/A

Note: This table was compiled using figures provided by the FCC Office of Legislative Affairs.

FCC Strategic Plan

In 2003, the FCC adopted a five-year strategic plan promoting six goals relating to broadband, competition, spectrum, media, homeland security, and FCC modernization. The statutory authority under which the FCC has adopted these goals is listed in brackets after the description of each.[10]

Broadband

Establish regulatory policies that promote competition, innovation, and investment in broadband services and facilities while monitoring progress toward the deployment of broadband services in the United States and abroad. [47 U.S.C. §157 and note][11]

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[9] A full discussion of the status of the FCC budget is available online at [http://www.congress.gov/brbk/html/apcjs64.html].

[10] FCC Strategic Plan, FY2003-FY2008. The Strategic Plan is also a good general reference for the background, mission, and general goals of the FCC. The plan is available online at [http://www.fcc.gov/omd/strategicplan/].

[11] FCC Strategic Plan, FY2003-FY2008, p. 5.

Competition

Support the Nation's economy by ensuring that there is a comprehensive and sound competitive framework for communications services. Such a framework should foster innovation and offer consumers meaningful choice in services. Such a pro-competitive framework should be promoted domestically and overseas. [47 U.S.C. §§251, 253, 254, 271, and 309(j)][12]

Spectrum

Encourage the highest and best use of spectrum domestically and internationally in order to encourage the growth and rapid deployment of innovative and efficient communications technologies and services. [47 U.S.C. §§301 and 303(g)][13]

Media

Revise media regulations so that media ownership rules promote competition and diversity in a comprehensive, legally sustainable manner and facilitate the mandated migration to digital modes of delivery. [47 U.S.C. §§307(b) and 336; Telecommunications Act of 1996 §202(h)][14]

Homeland Security

Provide leadership in evaluating and strengthening the Nation's communications infrastructure, in ensuring rapid restoration of that infrastructure in the event of disruption, and in ensuring that essential public health and safety personnel have effective communications services available to them in emergency situations. [47 U.S. C. §§151, 337, and 606][15]

FCC Modernization

Emphasize performance and results through excellent management. Develop and retain independent mission critical expertise and align the FCC with the dynamic communications markets. [47 U.S.C. §155(a)]

Potential Procedural Changes

A number of proposals for change at the FCC focus on procedural changes to the manner in which the agency conducts its business. Some of these changes would require new legislation (e.g., Sunshine rules), while others could be achieved through internal FCC action.

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[12] Ibid.

[13] Ibid.

[14] Ibid.

[15] Ibid.

Adoption/Release of Orders

The FCC often adopts orders and issues press releases with a summary of the order weeks or even months prior to releasing the order itself. For example, the Triennial Review, which dealt with controversial issues relating to competition in the local telecommunications market, and the 800 MHz order, which dealt with controversial and technically complicated issues related to interference to public safety communications, were released six months and one month, respectively, after they were officially adopted by the Commission. Some congressional policymakers have discussed instituting a "shot clock," which would require the FCC to issue the actual order within a set time frame after it adopts the order and issues a press release.

Sunshine Rules

Under current "sunshine laws,"[16] only two commissioners may meet outside the construct of an official "open meeting." While such a requirement, in theory, promotes open discussion of issues under consideration, in reality, most Commission business is conducted by circulating drafts of orders for comment. Further, the open meeting requirement may actually hinder discussion among the commissioners, especially in cases where the disagreement on the draft is significant. In such cases, it might be possible for further compromise if a third or fourth commissioner could be involved in the discussion. While the FCC cannot institute such changes without Congressional amendment to current sunshine requirements, it could be useful to study how other agencies, which do not employ circulation as much as the FCC, work through contentious issues on their agendas. Senator Ted Stevens, Chairman of the Senate Committee on Commerce, Science, and Transportation, has stated that he believes the current sunshine requirements "push too much power to the staff, and it does not allow more than two commissioners to be in the same room at one time. . . it really is the sunshine law gone awry."[17]

Timeliness

Some of the basic work of the FCC affects the every day function of the telecommunication industry (e.g., license transfers for mergers and sales and license

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[16] The Government in the Sunshine Act, PL 94-409, was passed in 1976. It requires that all federal agencies with units that work independently of each other hold their meetings in public session. The bill explicitly defined meetings as essentially any gathering. Many federal agencies, most notably the independent regulatory agencies, including the FCC, are headed by multiple commissioners. These agencies make most of their decisions through discussions and voting by the board or commission members. This law was created so that these meetings would be in the public domain for all to review. Additional information on this law is available online at [http://www.everything2.com/index.pl?node_id=1161139].

[17] "Stevens to Continue Listening Sessions, But Sees Telecommunications Bill by July," Daily Report for Executives, No. 51, March 17, 2005, Page A-1. This article is available online at [http://ippubs.bna.com/IP/BNA/der.nsf/SearchAllView/96C56942C092C93B85256FC70014F11F?Open&highlight=FCC,SUNSHINE].

renewals). Some policymakers have expressed concern that these processes take too long to complete. Similar to views concerning more complicated regulatory actions such as rulemaking proceedings, these policymakers believe there should be a strict time limit on how long these actions may take to complete. Such time limits, they state, would provide further operational certainty within the industry.

Enforcement

Enforcement of agency rules is currently the responsibility of the FCC's Enforcement Bureau. Previously, enforcement responsibilities were held by a division within each bureau. For example, enforcement of slamming was done by a division within what was then the Common Carrier Bureau (now called the Wireline Competition Bureau). Some policymakers have questioned whether the current "unified" structure is more effective than the previous "diversified" structure and have suggested studying the issue.

Potential Substantive Changes

While some of the changes discussed above could be made by the FCC absent Congressional action, other, more significant changes would most likely require the passage of legislation. During the 108th Congress, a number of bills have been introduced that address individual issues related to telecommunications regulation, but no comprehensive bill has been introduced that would resolve the conflicts that have lingered or the unforeseen conflicts that have developed since the passage of the 1996 Act. Key members of Congress have indicated that they may develop such comprehensive legislation during the 109th Congress. If so, Congress may wish to survey some of the current thinking on regulatory reform and sift through the various views from different sectors of the industry.

A common theme in the discussion about new legislation is how to address the issue of convergence. More specifically, the discussion centers on the concept of "regulatory parity": regulating services based on the service itself rather than by the type of provider. One discussion of regulatory parity for converged services is offered in "Parity Rules: Mapping Regulatory Treatment of Similar Services," by Sherille Ismail.[18] In that article, the author — Senior Counsel of the FCC Office of Strategic Planning and Policy Analysis — surveys a broad range of communications services and concludes that although "regulatory parity may be a laudable goal, it is not an easily achievable goal." In particular, Ismail points out the difficulty in achieving regulatory parity from a practical standpoint. He cites a number of reasons that disparities may exist, such as if the disparity is (1) required by statute, (2) caused by jurisdictional differences, or (3) due to a Commission rule or policy. Ismail believes, however, that the most significant hurdle for regulatory parity is that providers are "rarely so alike that they must be treated in exactly the same manner." He believes a "better approach would be to resolve the issues on the basis of specific

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[18] "Parity Rules: Mapping Regulatory Treatment of Similar Services," by Sherille Ismail, *Federal Communications Law Journal*, Vol. 56, no. 3, May 2004. The views expressed in this article are those of the author and do not necessarily represent the views of the FCC or any of its Commissioners or staff.

rules or policies, rather than seek to eliminate alleged disparities." However, while some may support his conclusion, it leaves policymakers still searching for a new model upon which to base new legislation and regulations.

One model that has emerged with respect to convergence is the "Network Layers Model." This model looks at different network functionalities as horizontal layers and is based on the same general concepts as the International Standards Organization's Open Systems Interconnection model.[19] A detailed overview of the Network Layers Model and one method for implementing it from a policy standpoint is proposed in a paper from MCI, "A Horizontal Leap Forward: Formulating a New Public Policy Framework Based on the Network Layers Model," by Richard S. Whitt.[20] Whitt advocates abandoning the legal silos that divide different industries, technologies, and services in favor of a framework that largely "unregulates" the upper layers of the model that deal with protocols, applications, and content, and imposing minimal common carrier-like regulation at the bottom or physical layer. For example, voice over Internet Protocol (VoIP), which will be discussed below, would fall into the applications layer and would therefore, for the most part, not be regulated. The physical layer, however, which the paper cites as digital subscriber line (DSL) loops, cable facilities, and radio and television spectrum, would remain subject to "light touch" regulation. Such regulation might include an open access requirement or other safeguard until Congress or the FCC determines sufficient competition exists to warrant loosening or eliminating that regulation.[21]

An opposing viewpoint concerning the regulation of the physical layer is presented by Christopher S. Yoo, an associate professor of law at Vanderbilt University. In his paper, "The Economics of Net Neutrality," which was published by the Progress & Freedom Foundation, the author argues that the physical layer of the network should not be regulated.[22] Yoo argues, in short, that regulating the physical layer would result in less competition and investment at the physical layer and, in the long run, harm competition. Another collection of essays critiquing MCI's application of the Network Layers Model is available from the New Millennium Research Council.[23]

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[19] Information about the Open Systems Interconnection Model can be found online from Cisco Systems at [http://www.cisco.com/univercd/cc/td/doc/cisintwk/ito_doc/introint.htm].

[20] "A Horizontal Leap Forward: Formulating a New Public Policy Framework Based on the Network Layers Model," by Richard S. Whitt. Whitt is MCI's Vice President of Federal Law and Policy. The paper is available online at [http://global.mci.com/ about/publicpolicy/presentations/ horizontallayerswhitepaper.pdf].

[21] While Whitt's paper offers one possible layers-based model on which to base future regulations, policymakers should assess the application of the model advocated in the paper as the view from one segment of the telecommunications industry, the competitive telecommunications and Internet sector.

[22] "The Economics of Net Neutrality: Why the Physical Layer of the Internet Should Not Be Regulated," 2004, by Christopher S. Yoo. This paper is available online at [http://www.pff.org/ issues-pubs/pops/pop11.11yoonetneutrality.pdf]

[23] This paper is available online at [http://www.newmillenniumresearch.org/news

(continued...)

The Changing Telecommunications Landscape: The Challenge to Congress and the FCC of New Technologies, Services, and Providers

In the past, different modes of communication, as well as the companies that provided them, were easily distinguishable from one another. They could, therefore, be easily regulated according to the strict definitions included in the 1934 Act. For example, twenty years ago, "plain old telephone service" and cable television were easily distinguishable from each other; it would have been almost impossible to compare them. Today, however, communications services are evolving from an analog world to a digital world. In that digital world, all bits look the same — they are all 1s and 0s — whether they are voice or data.

Convergence and its Impact on the Regulatory Environment

In addition to blurring the distinctions between services, the move towards an all-digital world has allowed service providers to expand their service offerings and also allowed entirely new service provider categories to emerge. For example, a consumer can now receive streaming video via DSL service provided by telephone companies and voice service provided by cable companies, blurring the distinctions between the two types of providers. Further, since 2001, the FCC has recognized "broadband service providers" (BSPs) as a separate category of company. These BSPs are defined as "newer firms that are building state-of-the-art facilities-based networks to provide video, voice, and data services over a single network";[24] in short, BSPs are able to provide "one-stop shopping" for consumers.

The evolution of the communications industry towards an all-digital world is often referred to as "convergence." While convergence has made distinguishing among types of data increasingly difficult, the FCC must continue to differentiate among services based on the distinctions drawn in the 1934 Act. Specifically, the FCC regulates common carrier telecommunications services[25] under Title II, cable

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[23] (...continued)
/071304_report.pdf]. The positions advocated in the Progress & Freedom Foundation (PFF) and New Millennium Research Council (NMRC) papers present the view of a different industry sector, the incumbent local exchange carriers (ILECS). The PFF receives funding from the ILEC industry (among many others): the United States Telecom Association (USTA), which is the trade group for the industry, SBC Communications, and Verizon. The NMRC is the research arm of Issue Dynamics, Inc., which has clients that include USTA and Verizon.

[24] See In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, MB Docket No. 03-172, Tenth Annual Report, paras. 78-79. January 5, 2004. Available online at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-5A1.pdf].

[25] The Communications Act of 1934 defines telecommunications as "the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received." It defines
(continued...)

services under Title VI, and information services[26] under Title I.[27] Some have referred to this legal framework as the "silos" approach to regulation. Additionally, under Title I, the FCC can forbear from regulating telecommunications services and even eliminate regulations concerning such services that it determines are no longer in the public interest through its biennial review process.

When all data looks the same and functionally similar services are provided by companies governed by different titles of the 1934 Act, questions of fairness and competitive advantage may arise. As newer technologies and services are developed and deployed, applying legacy regulations to them may begin to appear more strained.

VoIP and Convergence. Convergence has been driven in part by the evolution towards services based on the Internet Protocol (IP), the set of rules governing the applications and services that are delivered via the Internet. With respect to IP-enabled services, the one with the most legal and regulatory impact may be IP-based voice service, usually referred to as VoIP. While some might choose to categorize VoIP as an unregulated Internet-based service in the same category as email, others believe that it is a substitute for traditional voice telephony and should be regulated as such. Further, policymakers must determine whether all regulatory requirements should be imposed, including economic regulation, or whether only social regulation, such as universal service and law enforcement access (CALEA) is needed.

Although it may appear to be the same to the user, VoIP is quite different from traditional, analog telephone service in that it does not employ a single, dedicated path between the calling parties (called circuit switching). Instead, VoIP "translates" analog voice into digital "packets" and transmits those packets along multiple paths (called packet switching), finally reassembling the packets at the receiving end.[28] This is the same format, or protocol, used to transmit email, instant messages, video, and other data via the Internet. Thus, voice is no longer a separate service — voice data looks just like every other kind of data. In short, VoIP functions like traditional

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[25] (...continued)
telecommunications service as " the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used."

[26] The Communications Act of 1934 defines information services as "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service."

[27] However, video services offered by telephone companies and telephony services offered by cable companies are regulated under Titles VI and II, respectively.

[28] The packets, once delivered, may be converted back into an analog signal or left in digital form depending on the receiving party's terminal equipment (i.e, a telephone, a computer, etc.).

voice service, but the voice data is transmitted digitally as bits, undistinguishable from other data, such as email.

VoIP also may be offered by companies that are subject to different types of regulation by the FCC, in accordance with the 1934 Act: telephone companies (via DSL); cable companies (via cable modem); electricity companies (via broadband over powerlines [BPL], including companies that may lease bandwidth capacity over BPL, such as independent Internet service providers);[29] and standalone VoIP providers who provide service via various configurations of hardware and software.

This blurring of lines between voice and other types of data has raised many policy questions relating to VoIP, including CALEA compliance, Enhanced 911 (E911), state versus federal jurisdiction over such calls, intercarrier compensation for call termination on the public switched network, universal service, and taxation. As the market develops, a tension may develop over whether new entrants should be required to adhere to existing regulations, or perhaps how existing regulations should be changed to better reflect the current technological and competitive environment.

Other Issues. In addition to convergence as an overarching catalyst of change for both the communications industry and the FCC, other issues are also affecting the industry and helping shape the agenda of the FCC, among them

- Promoting broadband services[30]
- Promoting telephone competition in local markets,[31] including how to maintain the universal service system and intercarrier compensation
- Promoting video competition[32]

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[29] BPL is an emerging technology/service provided by electricity companies and is just starting to be deployed commercially. BPL challenges traditional and embedded thinking and paradigms about telecommunications and information services because it does not fit neatly into an existing category of service — or service provider. It has the same capabilities as DSL and cable modem service, but since it is a new service, the FCC has not determined how it should be regulated. How the FCC chooses to regulate it will have a significant impact on how the technology and service develops.

[30] See CRS Issue Brief IB10045, *Broadband Internet Access: Background and Issues*, by Angele A. Gilroy and Lennard G. Kruger; CRS Report RL32421, *Broadband over Powerlines: Regulatory and Policy Issues*, by Patricia Figliola; CRS Report 98-67, *Internet: An Overview of Key Technology Policy Issues Affecting Its Use and Growth*, by Marcia S. Smith, John D. Moteff, Lennard G. Kruger, Glenn J. McLoughlin, and Jeffrey W. Seifert.

[31] See CRS Report RL31938, *Local Telephone Competition: A Brief Overview*, by Angele A. Gilroy.

[32] See CRS Report RL32026, *Market Dynamics and Public Policy Issues in the Video Programming Industry*, by Charles B. Goldfarb; CRS Report RL32027, *Market Structure of the Video Programming Industry and Emerging Public Policy Issues*, by Charles B. Goldfarb; CRS Report RL32116, *Spanish Language Media After the Univision-Hispanic*

(continued...)

- Determining the applicability of legacy requirements (e.g., CALEA, E911) on new technologies[33]
- Ensuring the availability of adequate spectrum for public safety and emergency response[34]
- Assessing the impact of media consolidation[35]
- Assessing the impact of and possibly regulating violent and indecent programming[36]
- Enhancing and promoting public safety wireless communications.[37]

Conclusion. Although the FCC has restructured over the past few years to better reflect the industry, it is still required to adhere to the statutory requirements of its governing legislation, the Communications Act of 1934. The 1934 Act requires the FCC to regulate the various industry sectors differently, according to the title that governs them. Title I of the 1934 Act gives the FCC the authority to structure itself in the manner it believes will allow it to best fulfill its responsibilities; however, from a practical standpoint, the FCC may not be able to restructure to the extent needed to implement significant changes unless changes are made to the 1934 Act itself.

Some policymakers have been critical of the FCC and the manner in which it regulates various sectors of the telecommunications industry — telephone, cable television, radio and television broadcasting, and some aspects of the Internet. These policymakers, including some in Congress, and various interest group and think tank experts, have long called for varying degrees and types of reform to the FCC. Some have called for significantly downsizing the agency by eliminating its regulatory functions and transforming it into an enforcement agency.[38] Others have suggested

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[32] (...continued)
Broadcasting Merger: Issues for Congress, by Charles B. Goldfarb.

[33] See CRS Report RL30677, *Digital Surveillance: The Communications Assistance for Law Enforcement Act*, by Patricia Figliola; CRS Report RS21222, *Implementing Wireless Enhanced 911: Issues for Public Safety Answering Points (PSAPs)*, by Linda K. Moore; CRS Report RS21028, *Emergency Communications: Wireless Enhanced 911 Issues Update*, by Linda K. Moore.

[34] See CRS Report RL31375, *Emergency Communications: Meeting Public Safety Spectrum Needs*, by Linda K. Moore.

[35] See CRS Report RL31925, *FCC Media Ownership Rules: Current Status and Issues for Congress*, by Charles B. Goldfarb.

[36] See CRS Report RL32222, *Regulation of Broadcast Indecency: Background and Legal Analysis*, by Angie A. Welborn and Henry Cohen.

[37] See CRS Report RL32408, *Spectrum Policy: Public Safety and Wireless Communications Interference*, by Linda K. Moore; CRS Report RL31375, *Emergency Communications: Meeting Public Safety Spectrum Needs*, by Linda K. Moore.

[38] See, for example, "How to Reform the FCC", by Randolph J. May, June 21, 2004, (continued...)

abolishing the agency and parceling out its functions to other agencies.[39] Others still call for more regulation (e.g., indecency). Most proposals, however, fall into one of two categories: (1) procedural changes made within the FCC or through Congressional action (e.g., Sunshine rules) that would affect the agency's day-to-day operations or (2) substantive policy changes requiring Congressional action that would affect how the agency regulates different services and industry sectors.

The evolution towards converged services and the increase in industry consolidation (often across service boundaries) have contributed to a contentious telecommunications policy environment. In such an environment, the substantive changes to the 1934 Act that may enable the FCC to regulate most effectively could remain difficult to achieve. However, the FCC, without such a congressional mandate for change, may find it increasingly difficult to conduct its work under the restrictions of the 1934 Act.

FCC-Related Congressional Action: 109th Congress

Since the 109th Congress convened, there has been much discussion regarding the possibility of updating the Communications Act and a number of hearings[40] and "listening sessions"[41] have already been held, with more expected. In the Senate, the Committee on Commerce, Science, and Transportation eliminated its Subcommittee on Communications with the intention of considering any legislation to amend the Communications Act in the full committee.

Legislation

Although members of the 109th Congress have not yet introduced legislation specific to FCC structural change or the larger issue of a rewrite of the

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[38] (...continued)
available online at [http://news.com.com/20101071-5236715.html].

[39] For example, under such a scenario, the FCC would no longer be responsible for reviewing and approving mergers between companies; instead, the Department of Justice would provide anti-trust review. See, e.g., "Why the FCC Should Die," by Declan McCullagh, June 7, 2004, available online at [http://news.com.com/2010-1028-5226979.html]; and "Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecosm," 1997, information available online at [http://www.phuber.com/huber/cl/cl.htm].

[40] A complete list of hearings, along with associated testimony, for the Senate Committee on Science, Commerce, and Transportation is available online at [http://commerce.senate.gov/hearings/index.cfm].

[41] For further information on the listening sessions by the Senate Committee on Science, Commerce, and Transportation, see "Stevens to Continue Listening Sessions, But Sees Telecommunications Bill by July," Daily Report for Executives, No. 51, March 17, 2005, Page A-1. This article is available online at [http://ippubs.bna.com/IP/BNA/der.nsf/SearchAllView/96C56942C092C93B85256FC70014F11F].

Communications Act, they have introduced bills that would affect issues under the purview of the FCC, including, but not limited to, broadband regulation and deployment, indecent and violent programming, public interest obligations of broadcasters, spectrum allocation, and universal service. Other topics likely to be addressed during this session, either as standalone bills or as part of a larger rewrite effort, include, but are not limited to, wireless, Enhanced 911, media concentration, the transition to digital television, and various aspects of Internet-enabled services (e.g., VoIP, issues related to homeland security, including the Communications Assistance for Law Enforcement Act [CALEA]).

A timetable for developing and moving legislation through the Senate and House remains unclear, although the leadership of both the Senate and House committees have stated their intentions to have a bill ready for consideration this session. For instance, in the Senate, Senator Ted Stevens has stated that he "expect[s] to be able to go to conference with [the House] sometime this fall. . . we expect a bill this year." In the House, Representative Fred Upton, Chairman of the Subcommittee on Telecommunications and the Internet, stated his intention to develop a draft telecommunications bill by late spring or early summer, get it through committee, and have it ready for the Senate prior to the August congressional recess.[42] However, industry representatives have expressed varying degrees of confidence in seeing a bill signed into law during the 109th Congress.[43] Regardless of whether a bill ultimately reaches the President for signature, this session is already seeing a lot of activity regarding a potential rewrite of current communications law.

Hearings

The House Committee on Energy and Commerce Subcommittee on Telecommunications and the Internet has thus far held a series of four hearings entitled, "How Internet Protocol-Enabled Services are Changing the Face of Communications." These hearings have focused on issues related to voice services, video services, and the points of view of government officials and technology companies (February 9, March 16, April 20, and April 27, 2005). Additionally, the full Committee on Energy and Commerce held a hearing entitled, "Competition in the Communications Marketplace: How Technology Is Changing the Structure of the Industry" (March 2, 2005). That hearing comprised two panels, one made up of telecommunications industry executives and another made up of representatives from

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[42] "Barton Determined to Slash E-Rate, 'Start From Scratch' on Telecom Bill," Daily Report for Executives, No. 70, April 13, 2005, Page A-21. This article is available online at [http://ippubs.bna.com/IP/BNA/DER.NSF/SearchAllView/2313F81316032B3E85256FE2000D6185].

[43] "109th Congress to Launch Comprehensive Overhaul of 1996 Act" Daily Report for Executives, No. 7, January 11, 2005, Page S-5. This article is available online at [http://ippubs.bna.com/IP/BNA/der.nsf/SearchAllView/85C655518A9ECD4985256F860023C625]. See also "Sununu Sees Major Telecom Reform in '05, But Hill Staff Anticipate Major Disagreements," Daily Report for Executives, No. 202, October 20, 2004, Page A-4. This article is available online at [http://ippubs.bna.com/IP/BNA/der.nsf/SearchAllView/22C23B8ECC677E3C85256F33000D7DD2].

academia, the public interest community, and investment banking.[44] Also, FCC Chairman Kevin Martin has testified at the House Committee on Appropriations hearing on the FCC budget (April 26, 2005).[45] During the hearing, Commissioner Martin presented the FCC's budget request and also answered questions on Commission plans and action on issues such as broadcast and cable indecency, the E-Rate, and the provision and availability of emergency services via VOIP.

The Senate thus far has no open hearings planned, but Senator Stevens has stated his intention to hold a series of closed "listening sessions" with telecommunications industry representatives before beginning work on any potential rewrite of current communications law.[46]

Additional Reading

CRS Issue Brief IB10045, *Broadband Internet Access: Background and Issues*, by Angele A. Gilroy and Lennard G. Kruger.

CRS Report RS20993, *Wireless Technology and Spectrum Demand: Third Generation (3G) and Beyond*, by Linda K. Moore.

CRS Report RL32126, *911 Call Center Legislation: S. 1250 and H.R. 2898*, by Linda K. Moore.

CRS Report RS21028, *Emergency Communications: Wireless Enhanced 911 Issues Update*, by Linda K. Moore.

CRS Report RL30052, *Telephone Bills: Charges on Local Telephone Bills*, by James R. Riehl.

CRS Report RL32018, *The E-Rate Program: Universal Service Fund Telecommunications Discounts for Schools*, by Angele A. Gilroy.

CRS Report RL32222, *Regulation of Broadcast Indecency: Background and Legal Analysis*, by Angie A. Welborn and Henry Cohen.

CRS Report RL31925, *FCC Media Ownership Rules: Current Status and Issues for Congress*, by Charles B. Goldfarb.

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[44] A complete list of hearings, along with associated testimony, for the House Committee on Energy and Commerce and its subcommittees is available online at [http://energycommerce.house.gov/108/action.htm].

[45] This testimony is available online at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-258333A1.pdf].

[46] "Stevens to Continue Listening Sessions, But Sees Telecommunications Bill by July," Daily Report for Executives, No. 51, March 17, 2005, Page A-1. This article is available online at [http://ippubs.bna.com/IP/BNA/der.nsf/SearchAllView/96C56942C092C93B85256FC70014F11F].

CRS Report RL32408, *Spectrum Policy: Public Safety and Wireless Communications Interference*, by Linda K. Moore.

CRS Report RL31260, *Digital Television: An Overview*, by Lennard G. Kruger.

CRS Report RL30677, *Digital Surveillance: The Communications Assistance for Law Enforcement Act*, by Patricia Moloney Figliola.