

2007

Calling All Angles: Perspectives on Regulating Internet Telephony

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Recommended Citation

Melissa Winberg, *Calling All Angles: Perspectives on Regulating Internet Telephony*, 10 *Vanderbilt Journal of Entertainment and Technology Law* 241 (2020)

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Calling All Angles: Perspectives on Regulating Internet Telephony

ABSTRACT

In 1996, Congress passed the Telecommunications Act, substantially revising the Communications Act of 1934 to reflect technological advances, including the Internet, and Congress's deregulatory goals. Currently, however, new technologies are challenging the viability of the statutory definitions and regulatory schemes of the statute. Internet telephony, commonly called Voice over Internet Protocol (VoIP), is both a replacement for traditional telephone service and a new web-based technology. Given the current competitive political climate and the magnitude of the interests involved, Congress is unlikely to succeed in altering the telecommunications regime. Thus, the Federal Communications Commission, which has the authority to regulate interstate telecommunications, must decide how to regulate VoIP within the confines of the current statute. This Note analyzes the FCC's current approach to regulating VoIP and draws upon the FCC's previous experience in regulating new technologies to recommend a course of action. The Note concludes that the FCC should end uncertainty regarding the statutory classification of VoIP by declaring it an "information service." The FCC should then proceed cautiously in its regulation of VoIP, using its limited ancillary jurisdiction to regulate in the public interest only when the market has failed to remedy a public harm. In addition, the FCC should allow new technologies, such as VoIP, as much flexibility as possible in order to create innovative solutions to public harms and should resist applying traditional regulatory structures to new technologies.

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The face of the telecommunications market is rapidly changing. Long gone are the days when Ma Bell owned everything in telecommunications from the circuit switches to the phones. Now, traditional telephone service faces rapidly declining revenues and stiff competition from wireless telephony and Internet communications, such as e-mail and instant messaging. A new, rapidly growing challenger to landline telephone service is Internet telephony, commonly referred to as Voice over Internet Protocol (VoIP). Whether the primary services of an individual company, such as Vonage, or a supplementary offering to be bundled with other services from large cable companies, such as Comcast, the ability to make a telephone call over the Internet offers a viable substitute for traditional landline telephone service.

The advent of VoIP as a competitor for traditional telephone service destabilizes the existing regulatory structure and challenges the assumptions underlying current regulations. Traditionally, a few large companies monopolized telephone and cable services. Under current statutory authority, the Federal Communications Commission

(FCC) regulates cable and telecommunications services differently.¹ With regard to telecommunications, the FCC focuses on building competition by promoting access to the existing telephone infrastructure.² However, VoIP does not necessarily rely on access to networks built by large, incumbent telephone companies. In fact, VoIP allows cable providers to compete with telephone companies for customers by using the Internet to transmit telephone calls. This intramodal competition goes beyond anything envisioned in the statute or under existing regulations. Thus, the distinctions outlined in the statute are rapidly becoming irrelevant through the introduction of new technology. However, given the difficulty of enacting sweeping legislation reforming the current communications act, the FCC faces the challenge of deciding how to regulate a new service that defies statutory classification.

This Note analyzes how the FCC has approached regulating VoIP to date and recommends principles for future regulation. Part I looks at the history of telecommunications and includes a brief technological description of the traditional telephone system. It also covers how the introduction of wireless telephony changed the telecommunications environment. Finally, Part I defines VoIP and explains what VoIP is and how it differs from traditional telephone service.

Part II explores the statutory and regulatory history leading up to the introduction of VoIP as a viable competitor in telecommunications. This section analyzes how the FCC previously dealt with a similar situation of new technology undermining and challenging the current regulatory structure in the series of FCC decisions known as the "Computer Inquiries." In addition, Part II explains the statutory goals and structure of the 1996 amendments to the Communications Act. In particular, this part identifies the implications of the statutory structure of the 1996 Telecommunications Act. Finally, Part II explores the current regulatory environment by reviewing recent court cases, FCC orders, and FCC proceedings that have implications for VoIP.

In Part III, this Note analyzes and offers a solution to the current regulatory dilemma that does not rely on forthcoming congressional action. The section addresses critiques and arguments regarding the regulatory treatment of VoIP. Part III argues that the FCC should classify VoIP under current statutory definitions to

1. 47 U.S.C. § 151 (2000) (creating the Federal Communications Commission); *see infra* Part II.A.

2. *See* 47 U.S.C. § 201 (2000).

provide regulatory certainty for the developing service. This part also discusses how the FCC can correct market failures by using its ancillary jurisdiction to promote the public interest as needed and offers guidelines for the FCC to use its regulatory power in the context of VoIP services. The Note concludes that the FCC should have the paramount goals of promoting technological innovation and replacing regulation with competition.

I. HOW VOIP DIFFERS FROM TRADITIONAL TELEPHONY

Voice over Internet Protocol is essentially telephone service over the Internet. From the end user's perspective, VoIP is very similar to traditional landline telephone services, which is why some people think VoIP will eventually replace the current telephone system.³ A VoIP user can call other VoIP users (computer-to-computer) or any other phone number (computer-to-phone), and anyone can call a VoIP user from their telephone (phone-to-computer). However, the technology behind a call placed over the Internet is significantly different than the technology behind a call placed over a traditional telephone line.

A. Traditional Telephone Service

Traditional telephone services use an analog system to connect one caller to another. Under this system, when users pick up the phone to call someone, they use the Public Switched Telecommunications Network (PSTN) to connect to the other person's phone.⁴ Depending on how far away the other person is, the call may be routed through several interconnected circuit switches.⁵ Once a connection is established, the call uses a dedicated line for at least part of the distance (usually into each person's house), which cannot be used for anything else for the duration of the call.⁶ Traditional

3. See, e.g., Roger Cheng, *Battle Is On for Web-Calling Market*, WALL ST. J., Oct. 20, 2004, at B2C (noting that "VoIP will eventually replace traditional phone lines," and that cable operators offering VoIP services "will likely edge out phone companies").

4. See Robert Valdes, *How VoIP Works*, HOWSTUFFWORKS, <http://communication.howstuffworks.com/ip-telephony.htm/printable> (last visited Sept. 23, 2007).

5. *Id.*

6. *Id.* Technically, many traditional telephone service providers use a form of VoIP to maximize efficiency for long-distance phone calls. See *In the Matter of Petition for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Service are Exempt from Access Charges*, 19 F.C.C.R. 7457, 7457 (2004). Instead of using a dedicated line all the way from New York City to Los Angeles, the phone company will digitize part of the call

phone service has been around for more than one hundred years and is expensive, redundant, and highly regulated.⁷ It is, however, extremely reliable.⁸

Traditional telephone lines are based on huge physical networks with copper wire connecting each telephone to the company's network. As a result, Congress and regulatory agencies both considered the local telephone industry to be a natural monopoly.⁹ New entrants into the local telephone market would be required to make enormous upfront investments in building a physical network and interconnecting to other telephone companies.¹⁰ In addition, since market penetration for local telephone services is nearly at capacity, a new entrant would not be serving new customers, but would be taking customers from the incumbent telephone company.¹¹ The costs of developing a telephone network, combined with the lack of an easily obtainable market, prevented new companies from entering the local telephone market.¹² Thus, regulations focused on quality of service and appropriate rates at the local level.¹³

B. VoIP Technology

VoIP differs from traditional telephony in that, instead of using dedicated analog lines, audio signals are converted into digital data

and send it through a fiber optic network. *Id.* However, for the purposes of this note, VoIP is defined as a telephone service over the Internet that is offered to consumers as a replacement for traditional telephone service. This mimics the definition given by the FCC in regulating VoIP services in that it must offer connection to the traditional telecommunications network, such that a VoIP customer could call an AT&T customer. *See, e.g.,* In the Matter of Universal Service Contribution Methodology, 21 F.C.C.R. 7518, 7526-27 (2006) [hereinafter Universal Service Methodology Order] (defining "interconnected VoIP service" as those that: "(1) enable real-time, two-way voice communications; (2) require a broadband connection from the user's location; (3) require IP-compatible customer premises equipment; and (4) permit users to receive calls from and terminate calls to the [PSTN]") (emphasis added).

7. *See* Valdes, *supra* note 4.

8. *Id.*

9. *See* Douglas C. Sicker, *The End of Federalism in Telecommunications Regulations?*, 3 NW. J. TECH. & INTELL. PROP. 130, 133-41 (2005) (giving a standard history of the development of the PSTN); *see also infra* notes 80-84 and accompanying text.

10. *See* Sicker, *supra* note 9, at 133 ("[T]he dominant provider had little economic or regulatory reason to interconnect with networks of other providers.").

11. *Id.* ("The value of the network was in the number of subscribers and thus the ubiquity of service. Efficient pricing was sublimated to how many people could be reached on the network. Thus, the notion of competitors overbuilding to reach current customers of the dominant provider was seen as redundant and a waste of capital.").

12. *See id.* at 136-39 (discussing various antitrust actions challenging the monopolistic nature of the traditional telephone market).

13. *See id.*

packets, which are then transmitted, much like e-mail, over routers on the Internet.¹⁴ VoIP services allow users to place calls over the Internet by using either an analog telephone adapter (ATA) or an Internet protocol phone (IP phone).¹⁵ An ATA is a digital converter, which allows the user to connect a standard telephone to the ATA and then to a computer or Internet connection.¹⁶ An IP phone looks just like a regular telephone, but instead of connecting to the PSTN, it connects to an Internet router.¹⁷ With either of these devices, users can make VoIP calls from anywhere in the world, as long as they have the IP phone or ATA and an Internet connection.¹⁸

VoIP is much more efficient than traditional telephone service. With VoIP, data packets share space with other data packets.¹⁹ Therefore, unlike traditional analog service, several telephone calls can use the same line.²⁰ In addition, traditional telephone service keeps the line open for both ends, even though only one person is usually talking at a time.²¹ With VoIP, only actual audio transmissions are sent.²² Thus, one VoIP call could take up about one-third to one-quarter less space than a traditional analog call.²³

VoIP use has been growing steadily. While traditional telecommunications services are declining, more than 400,000 households were using VoIP in 2004, and 12.1 million households are projected to use VoIP in 2009.²⁴ VoIP is a key strategic service for many telecommunications providers, including cable companies, which are fighting to offer the big three services: phone, Internet, and television.²⁵

VoIP is inexpensive and flexible. Since the Internet renders physical distance irrelevant, a call from one VoIP user to another costs the same even if each user is located in a different country. Many

14. Valdes, *supra* note 4 (describing the “packet-switching” process).

15. *Id.*

16. *Id.*

17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.*

24. R. Alex DuFour, *Voice Over Internet Protocol: Ending Uncertainty and Promoting Innovation Through a Regulatory Framework*, 13 *COMMLAW CONSPECTUS* 471, 475-76 (2005).

25. *Id.* at 476.

VoIP providers advertise the service for a flat rate, which encompasses local, long-distance, and some international calls.²⁶

However, VoIP has some significant drawbacks. Since traditional phone companies have invested heavily in the PSTN, it is extremely reliable.²⁷ Users of traditional phone services have access to high-quality telephone service in an emergency, even if the electricity is out.²⁸ VoIP users, on the other hand, are dependent on electric service to use their phones.²⁹ In addition, VoIP calls can suffer from the same unreliability that affects e-mail and Internet access; if data packets are misrouted or the user loses Internet service, the VoIP call may be garbled or lost.³⁰

Finally, VoIP's flexibility presents significant public safety concerns for emergency services.³¹ Unlike traditional telephone services, which use the North American Numbering Plan (NANP) to generate a location-specific phone number that also acts as a geographic address, VoIP users are given a "phone number," which actually just enables the VoIP provider's program to locate the user's current IP address and does not give a geographic location.³² Since the VoIP connection is not tied to one specific location and is not connected to the traditional telephone network, VoIP users may not be able to reach 911 emergency assistance.³³

26. See, e.g., Vonage, <http://www.vonage.com> (last visited Sept. 23, 2007) (offering a flat monthly rate of \$24.99, which includes unlimited local and long-distance calls).

27. See generally Valdes, *supra* note 4.

28. See DuFour, *supra* note 24, at 499; cf. *id.* at 500 ("[D]ata systems like VoIP can be beneficial in emergencies because they use capacity efficiently and the Internet Protocol bypasses damaged switches. Data systems were the only functioning devices during the September 11th attacks.").

29. *Id.* at 499.

30. See Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141, 149 (2003) (recognizing that "Internet networks tend to favor, as a class, applications insensitive to latency (delay) or jitter (signal distortion)").

31. See In the Matters of IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers, 20 F.C.C.R. 10,245, 10,271 (2005) [hereinafter E911 Requirements Report].

32. See Susan P. Crawford, *The Ambulance, the Squad Car, & the Internet*, 21 BERKELEY TECH. L.J. 873, 891 (2006) (noting that "[a]n individual can make a VoIP call from a hotel room in London while using a New York area code, and be for all purposes—except physical purposes—in New York").

33. See Ben Charny, *Deadly Delay on Vonage 911?*, CNET NEWS.COM, May 9, 2005, http://www.news.com/2100-1037_3-5700493.html (detailing how a Florida woman called 911 on her VoIP phone and, instead of reaching emergency services, heard a recorded message that the sheriff's department's administrative offices were closed).

II. STATUTORY AND REGULATORY HISTORY OF TELECOMMUNICATIONS AND VOIP

While a telephone call placed through a VoIP provider might appear to be the same as one placed through a traditional landline telephone, the technological differences create significant implications for regulation. This leads to the conflict between whether to regulate VoIP as a traditional telecommunications service, especially since it is replacing landline service, or to regulate VoIP differently, taking into account the technological variations.

Under the American legal system, VoIP may be subject to three primary sources of regulation: Congress, the Federal Communications Commission (FCC), and the states. Congress has authority over the Internet and VoIP and has delegated much of that authority to the FCC.³⁴ The Telecommunications Act established a dual regulatory structure that granted the FCC broad authority over international and interstate communications services. However, the Telecommunications Act left jurisdiction over intrastate communications services to the states.³⁵ The FCC has jurisdiction over wire and radio and regulates interstate telecommunications services.³⁶ States have jurisdiction over intrastate telecommunications services and can impose tariffs and consumer protection requirements as long as they do not interfere with interstate commerce.³⁷

Since passing the revisions to the Communications Act in 1996, Congress has attempted to address a variety of issues relating to VoIP and telecommunications. Most recently, Senator Ted Stevens, a Republican from Alaska and Chair of the Senate Commerce Committee, barely missed pushing through a bill that would have updated numerous telecommunications provisions.³⁸ Because of the fast pace of changing technology and the high stakes of the telecommunications industry, passing legislation is an arduous and slow process, which rarely keeps pace with technology.

34. See 47 U.S.C. § 151 (2000).

35. *Id.*

36. 47 U.S.C. § 152.

37. See, e.g., In the Matter of Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission, 19 F.C.C.R. 22,404 (2004) [hereinafter *Vonage Petition*] (preempting a Minnesota Order regulating VoIP in that state on the grounds that it directly conflicted with the FCC's "pro-competitive deregulatory rules and policies").

38. *No Telecomm Bill, as Senate Recesses, Despite Stevens' Effort*, COMM. DAILY, Aug. 7, 2006.

A. *The FCC's Historical Approach to Regulating Innovative Technologies: The Computer Inquiries*

Although VoIP presents new challenges to the Telecommunications Act of 1996, the FCC faced a similar problem of applying an increasingly outdated statute to new technology when the Internet was first developed. The FCC developed policies for dealing with the new technology through a series of orders called the "Computer Inquiries."³⁹ Through these papers, the FCC distinguished between "basic" services, which it defined as "the offering of a pure transmission capability over a communications path" and which are similar to traditional telephony, and "enhanced" services, which included Internet services such as e-mail and the World Wide Web.⁴⁰ The FCC developed different regulatory regimes for these two types of services by identifying the market factors at work in each area.⁴¹ While basic services were subject to regulation as telecommunication providers, enhanced services were left unregulated.⁴²

As discussed, the nature of traditional telephone service established a natural monopoly.⁴³ Traditionally, local telephone

39. See *In the Matter of Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services and Facilities*, 28 F.C.C.2d 267 (1971) [hereinafter *Computer I*], *aff'd sub nom* GTE Serv. Corp. v. FCC, 474 F.2d 724 (2d Cir. 1973); *In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384 (1980) [hereinafter *Computer II*], *reconsidered*, *In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations*, 84 F.C.C.2d 50 (1980), *further reconsidered*, *In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations*, 88 F.C.C.2d 512 (1981), *aff'd*, *Computer & Comm'ns Indus. Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982); *In the Matter of: Amendment of Section 64.702 of the Commission's Rules and Regulations (Third Computer Inquiry) Report and Order*, 104 F.C.C.2d 958 (1986), *modified on reconsideration*, *In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations*, 2 F.C.C.R. 3035 (1987), *vacated*, *California v. FCC*, 905 F.2d 1217 (9th Cir. 1990); *In the Matter of Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services*, 14 F.C.C.R. 4289 (1999) [hereinafter *Computer III*].

40. *Computer II*, *supra* note 39, at 420 (differentiating between basic and enhanced services by defining basic services as merely transporting information without changing it, while enhanced services interact with the customer-supplied information); *see also* *In the Matter of Federal-State Joint Board on Universal Service*, 13 F.C.C.R. 11,501, 11,537-40 (1998) [hereinafter *Universal Service Report*] (noting that the FCC has found both e-mail and the World Wide Web to be enhanced services).

41. See Robert Cannon, *The Legacy of the Federal Communication Commission's Computer Inquiries*, 55 FED. COMM. L.J. 167, 175 (2003) (analyzing the market forces underlying the FCC's policy decisions in the Computer Inquiry decisions).

42. *Id.*

43. See *supra* note 9 and accompanying text.

companies controlled basic services.⁴⁴ Since traditional telephone lines are based on huge physical networks with copper wire connecting each telephone to the company's network, the FCC considered the local telephone industry to be a natural monopoly.⁴⁵ New entrants into the local telephone market would be required to make enormous upfront investments in building a physical network and interconnecting to other telephone companies.⁴⁶ In addition, since market penetration for local telephone services is nearly at capacity, a new entrant would not be serving new customers, but would be taking customers from the incumbent telephone company.⁴⁷ The costs of developing a telephone network, combined with the lack of an easily obtainable market, prevented new companies from entering the local telephone market.⁴⁸ Thus, the FCC focused on regulating the monopolies, ensuring quality of service and appropriate rates at the local level.⁴⁹ In the Computer Inquiries, the FCC sought to protect the developing Internet from incumbent telephone companies that used their monopoly market power to engage in anticompetitive practices.⁵⁰

In the Internet realm, on the other hand, the market for providing enhanced services was competitive since startup costs were very low. Therefore, there were few barriers to entry.⁵¹ As a result, in the Computer Inquiries, the FCC focused on aiding innovation in the enhanced services sector while preventing the local telephone company monopolies from hindering the development of the Internet.⁵² At that time, access to the Internet was available only through a dial-up connection through the local telephone company.

44. *See id.* ("The pure communications market . . . was provisioned by an incumbent monopoly . . . [which] almost always was AT&T.")

45. *See Sicker, supra* note 9, at 133 (giving a standard history of the development of the PSTN).

46. *See id.* ("[T]he dominant provider had little economic or regulatory reason to interconnect with networks of other providers.")

47. *Id.* ("The value of the network was in the number of subscribers and thus the ubiquity of service. Efficient pricing was sublimated to how many people could be reached on the network. Thus, the notion of competitors overbuilding to reach current customers of the dominant provider was seen as redundant and a waste of capital.")

48. *Id.*

49. *Id.*

50. *See, e.g., Computer I, supra* note 39, at 269 (acknowledging the potential for anticompetitive practices by the telephone companies given their position as a potential competitor in the enhanced services market by virtue of their current status of a provider of basic services, which were required at the time for access to enhanced services).

51. Regulatory and Policy Problems Presented by the Interdependence of Computer and Communication Services, Tentative Decision, 28 F.C.C.2d 291, 297-98 (1970).

52. *See Computer I, supra* note 39, at 269-70 (creating "Maximum Separation" safeguards to prevent telephone companies from monopolizing the enhanced services market).

Therefore, the FCC prevented telephone companies from controlling access to the Internet by regulating the conditions under which a telephone company could provide enhanced services.⁵³

B. Statutory Authority: The Communications Act

Congress passed the Communications Act in 1934, which created the FCC and established a regulatory framework for the telecommunications industry.⁵⁴ In 1996, Congress amended the Communications Act to take into account technological changes, including the Internet, and to promote the policy goals of deregulation and increased competition in the telecommunications industry.⁵⁵ The result was the current Communications Act.⁵⁶

The FCC is an independent agency that regulates interstate and international communications by radio, television, wire, satellite, and cable.⁵⁷ As such, the FCC has broad authority over traditional telecommunications services and has developed a complex regulatory scheme that monitors competition, access, and various government programs.⁵⁸ In 2003, the FCC opened a proceeding to determine whether and to what extent VoIP should be regulated.⁵⁹ Since then, the FCC has subjected VoIP to some regulations, including emergency services and law enforcement assistance requirements.⁶⁰ Congress can overrule any FCC decision by limiting the statutory delegation of power to the agency.⁶¹ In addition, the FCC cannot act beyond the authority extended to it by Congress.⁶²

53. *See id.*

54. 47 U.S.C. § 151 (2000).

55. *See* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

56. For clarity, this note will refer to the Communications Act of 1934 (as amended) as the Communications Act and will use Telecommunications Act of 1996 or 1996 Telecommunications Act to refer specifically to the 1996 revisions.

57. 47 U.S.C. § 152.

58. *Id.* §§ 201-276.

59. *See* In the Matter of IP-Enabled Services, 19 F.C.C.R. 4863, 4863 (2004) [hereinafter IP-Enabled Services Notice].

60. *See, e.g.*, E911 Requirements Report, *supra* note 31, at 10,246 (adopting rules that require VoIP service providers to “supply enhanced 911 (E911) capabilities to their customers”); In the Matter of Communications Assistance for Law Enforcement Act and Broadband Access and Services, 19 F.C.C.R. 15,676 (2004) (subjecting VoIP service providers to CALEA and its terms).

61. By specifically amending the Communications Act, Congress could eliminate or restrict the FCC’s regulatory authority. 47 U.S.C. § 152.

62. *See, e.g.*, Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs., 545 U.S. 967 (2005) (applying *Chevron* analysis).

1. Goals of the 1996 Telecommunications Act

As part of a broad initiative for deregulation, Congress almost completely revised the Communications Act in 1996. The primary goals of the new legislation were to promote innovation and stimulate competition.⁶³ Congress, however, did not overturn the findings from the FCC's Computer Inquiries, preserving the regulatory structure but renaming "basic" services "telecommunication services" and "enhanced" services "information services."⁶⁴ As a result, the 1996 Telecommunications Act gave the FCC discretion to forebear from applying regulations if the marketplace was adequate to address regulatory concerns.⁶⁵ In addition, Congress carved out a broad category of information services that would remain largely unregulated.⁶⁶ The 1996 Telecommunications Act, however, preserved much of the regulatory structure that already existed for cable and telephone services.⁶⁷

Through the 1996 Telecommunications Act, Congress attempted to address the problems that led to the Computer Inquiries, namely the difficulty of applying an outdated statute to technology that was completely different from anything that existed at the time the statute was created.⁶⁸ Congress also sought to give new technologies room to develop, unhindered by regulation.⁶⁹ Although Congress did not remove information services from FCC jurisdiction,

63. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

64. "Telecommunications" is "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." 47 U.S.C. § 153(43). "Telecommunications service" is the "offering of telecommunications for a fee directly to the public." *Id.* § 153(46). "Information service" is the "offering of a capability for generating, acquiring, storing, processing, retrieving, utilizing, or making available information via telecommunications." *Id.* § 153(20).

65. Under the FCC's Title II authority, it can waive a regulation or forebear from applying a regulation to a telecommunication service provider. *Id.* §§ 153(20), (43), (46).

66. Unlike telecommunications and cable services, the Telecommunications Act does not codify a regulatory scheme for "information services."

67. Title I and Title III, respectively, spell out the regulatory structure imposed on telecommunications and cable service providers. *See* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56.

68. *See* Universal Service Report, *supra* note 40, at 11,520 (finding that Congress built upon the "Commission's prior deregulatory efforts in Computer II" in creating the 1996 Telecommunications Act).

69. *See id.* (quoting a letter from Senators Ashcroft, Ford, Kerry, Abraham and Wyden: "[r]ather than expand regulation to new service providers, a critical goal of the 1996 Act was to diminish regulatory burdens as competition grew").

the FCC has no express authority to regulate these services.⁷⁰ The FCC, however, does have ancillary jurisdiction over services that are related to the goals of the Act, which can be used to promote the public interest, in limited cases such as public safety. Recent Court opinions have allowed the FCC to regulate services as long as the authority is reasonably ancillary to the effective performance of the FCC's authorized responsibilities.⁷¹ Thus, under the statute, new technologies would be given room to develop and grow, but the FCC could step in to prevent public harm.

In addition, the 1996 amendments to the Communication Act were part of a deregulatory effort by Congress. By creating incentives for competitive local telephone companies to be able to enter the market, Congress attempted to refute the long-held assumption that the local telephone industry was a natural monopoly.⁷² Congress hoped that, by lowering entry costs and promoting competition, the FCC would be able to eventually deregulate the telecommunications industry.⁷³ Through a complicated, and ultimately ineffective, system of subsidies and mandated access to network elements, the FCC and Congress attempted to introduce market forces into the telecommunications industry.⁷⁴

However, with the success of VoIP and the development of new technology that allows the transmission of large quantities of data, competitive local telephony could be a reality, with cable networks,

70. "Information services" are only subject to regulation if the FCC acts under its limited Title I ancillary jurisdiction. See 47 U.S.C. § 154.

71. See, e.g., *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 1002 (2005) (stating that the FCC has the authority, "pursuant to its ancillary Title I jurisdiction, to require cable companies to allow independent ISPs access to their facilities"); *United States v. Sw. Cable Co.*, 392 U.S. 157, 178 (1968) (holding that "the authority which we recognize today under § 152(a) is restricted to that reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting. The Commission may, for these purposes, issue 'such rules and regulations and prescribe such restrictions and conditions, not inconsistent with law,' as 'public convenience, interest, or necessity requires'" (citation omitted)). In addition, Title I of the Telecommunications Act gives the FCC the authority to "perform any and all acts, make such rules and regulations, and issue such orders, not inconsistent with this chapter, as may be necessary in the execution of its functions." 47 U.S.C. § 154(i).

72. See, e.g., 47 U.S.C. §§ 251(c)(3), 251(d)(2), 252(d)(1) (mandating access by competitors to parts of the existing telephone network at wholesale prices).

73. See, e.g., Shannon M. Heim, *Signaling System Seven: A Case Study in Local Telephone Competition*, 13 *COMMLAW CONSPECTUS* 51, 61 (2004) ("[T]he provision of telephone service was once considered a 'natural monopoly.'").

74. Competitive local telephone companies only provide service to 17.8 percent of traditional telephone lines. See Press Release, Federal Communications Commission, Federal Communications Commission Releases Study on Telephone Trends, June 21, 2005, available at http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend605.pdf.

telephone industries, and Internet providers all competing to provide what is known as the “big three”: television, phone and Internet.⁷⁵ Through innovation and the development of technologies, two industries that were largely assumed to be natural monopolies, cable and telephone, could end up competing with each other to provide services.⁷⁶ In addition, if broadband over power lines (BPL) becomes viable, local electric companies could also enter the telecommunications market.⁷⁷ With new innovations in technology, consumers now have broadband access through DSL and cable modems and will soon have access through wireless networks and BPL.⁷⁸ Consequently, telephone companies no longer have the ability to bottleneck access to the Internet. These developments remove telephone companies’ control over broadband Internet access by creating connections that do not rely on the copper wire that the telephone companies installed to create the current telecommunications network.⁷⁹

2. Structure of the Telecommunications Act of 1996

A key element of the 1996 Telecommunications Act is the distinction between “telecommunications services” and “information services.”⁸⁰ Telecommunications services, such as local and wireless

75. For example, cable companies are offering “triple play” packages of phone and broadband Internet services combined with cable video services. *Cablevision’s Loss Narrows on Sales Rise*, WALL ST. J., Nov. 9, 2006, at B4.

76. See *In the Matter of Unbundled Access to Network Elements*, 20 F.C.C.R. 2533 (2005), *aff’d*, *Covad Commc’ns Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006).

77. See *In the Matter of Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access Broadband over Power Line Systems*, 19 F.C.C.R. 2126 (2004) (noting that the FCC authorized BPL in October 2004, although power companies are still experimenting with deployment).

78. Several businesses are experimenting with building extensive wireless “WiMax” networks that would allow wireless access within miles of the base station, as opposed to the hundred or so yards now available. See Sarmad Ali, *Telecommunications—New and (Soon) Improved: Fixed WiMax is Here; But it’s Mobile WiMax That has People Even More Excited*, WALL ST. J., Nov. 27, 2006, at R8. For example, Sprint Nextel Corp. is building networks based on WiMax technology. Amol Sharma, *Poor Reception: After Sprint and Nextel Merge, Customers and Executives Leave*, WALL ST. J., Oct. 11, 2006, at A1.

79. These innovations could also increase broadband penetration in the United States and allow faster Internet connections, since reports indicate that broadband connections in America are slower than in other countries as a result of the dependence on copper wires. See Scott Blake Harris et al., *Regulating Broadband*, 23 COMM. LAWYER 1, 33 (2005).

80. 47 U.S.C. § 153(20) (2000) (“The term ‘information service’ means 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,

phone services, are very heavily regulated to ensure adequate competition, equal access, and public interest goals.⁸¹ Information services, on the other hand, such as e-mail and Internet applications, are left largely unregulated to allow for technological development.⁸² The distinction is critical since it determines whether a technology will be subject to a vast regulatory scheme or not.

Though Congress amended the Communications Act in 1996, the FCC reasoned that the distinction between “basic” and “enhanced” services was preserved by the language differentiating between telecommunications services and information services.⁸³ The FCC decided that Congress intended the definitions to be mutually exclusive, such that if a service was categorized as an information service, it would not be subject to any regulation simply as a result of its similarities to a telecommunications service.⁸⁴ Since classification as a “telecommunication service” entailed an entire regulatory structure modeled on ensuring reliability, quality of service, rate regulation, and social welfare subsidies, while “information services” were largely unregulated, the distinction between the two is critical to an industry.⁸⁵

Thus far, the FCC has declined to determine whether VoIP is an “information service” or a “telecommunications service.”⁸⁶ The FCC did, in its 1998 report to Congress, conclude that phone-to-phone IP services *were* telecommunications services, since they are essentially a

control, or operation of a telecommunications system or the management of a telecommunications service.”); *id.* § 153(46) (“The term ‘telecommunications service’ means 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.”).

81. *See id.* § 153(46).

82. *See id.* § 153(20).

83. *See* In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as Amended, 11 F.C.C.R. 21,905, 21,955-56 (1996) (noting that “the majority of commentators advocate that the [FCC] interpret ‘information services’ to be coextensive with ‘enhanced services’”).

84. *See* Universal Service Report, *supra* note 40, at 11,516-17 (stating that “entities providing enhanced or information services are not thereby providing ‘telecommunications service’”).

85. Telecommunications service providers are regulated as “common carriers” under the Telecommunications Act; as such, they must provide service at reasonable rates and without discrimination, and must contribute to various cost-shifting federal subsidies, such as the Universal Service Fund. *See, e.g.* 47 U.S.C. §§ 153(10), 201, 202, 254, 255.

86. *See, e.g.,* Vonage Petition, *supra* note 37, at 22,411 (reaching the decision to preclude state regulation “irrespective of the definitional classification of digital voice under the [Telecommunications] Act”).

more efficient method for providing traditional phone service.⁸⁷ In determining the appropriate regulatory system for VoIP services, the FCC hopes to balance its role of safeguarding the public interest with encouraging the development of new technology.⁸⁸ While VoIP directly competes with traditional telephone companies for business, it also uses innovative IP technology to send audio data from one person to another.

The FCC faced a similar dilemma over whether to define a service as an “information service” when determining the appropriate regulatory structure for digital subscriber line (DSL) and cable modem services.⁸⁹ Both DSL and cable modem services provide access to the Internet through traditionally regulated services.⁹⁰ Initially, the FCC labeled DSL a “telecommunications service” since it uses the same lines as a traditional phone service, even though it is used to access the Internet rather than place a telephone call.⁹¹ The inconsistent treatment of two technologies, when both provided similar high-speed access to the Internet, developed from the historically different regulatory schemes for telecommunication providers and cable providers.⁹²

However, after a series of contradictory court rulings regarding whether cable modem service should be classified as an “information service,” a “cable service” (another regulated area), or a combination thereof, the FCC issued an order stating that cable modem service was properly classified as an “information service.”⁹³ The U.S. Supreme Court later upheld this classification in *National Cable & Telecommunications Ass’n v. Brand X Internet Services*.⁹⁴ To be consistent, the FCC shortly thereafter reversed its earlier ruling that DSL was a telecommunications service and clearly stated that

87. Universal Service Report, *supra* note 40, at 11,544-45 (referring to VoIP as used as a part of a phone call by a traditional telecommunications service provider that originates and terminates on the PSTN).

88. See E911 Requirements Report, *supra* note 31, at 10,247.

89. See In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability, 13 F.C.C.R. 24,012, 24,028-29 (1998) [hereinafter Wireline Services Memorandum]; In the Matter of Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities, 17 F.C.C.R. 4798, 4802 (2002) [hereinafter Cable Modem Declaratory Ruling].

90. See 47 U.S.C. §§ 201, 521.

91. See Wireline Services Memorandum, *supra* note 89, at 24,029-30.

92. Although the history of regulation of the cable industry is outside the scope of this note, cable providers experienced a regulatory development somewhat analogous to traditional telecommunications providers, since the FCC regarded both industries as natural monopolies.

93. See Cable Modem Declaratory Ruling, *supra* note 89.

94. 545 U.S. 967 (2005).

broadband Internet access is an information service under the 1996 Telecommunications Act.⁹⁵ The FCC determined that although DSL and cable modems use telecommunications to provide information services, to the end-user, the service appears to be solely an information service.⁹⁶ The FCC justified this change in position by stating that lessening regulation would allow more broadband deployment, make regulations consistent for similar functions, and encourage innovation.⁹⁷

Although the FCC declined to explicitly classify VoIP as an information service under the 1996 Telecommunications Act, it has preempted state regulation in the Vonage Declaratory Ruling.⁹⁸ The Minnesota Public Utilities Commission attempted to regulate Vonage, a VoIP provider, as a traditional telecommunications provider.⁹⁹ Vonage filed a motion for a declaratory ruling by the FCC and sought a permanent injunction from a Minnesota district court preventing the Minnesota Commission from enforcing its order against Vonage.¹⁰⁰ The FCC determined that subjecting VoIP to multiple state regulations would “thwart federal law and policy.”¹⁰¹ Since VoIP is not easily divided into interstate and intrastate services, the FCC reasoned that VoIP providers might be subject to federal public safety regulation, especially with 911 requirements.¹⁰² The FCC Order indicated that, while VoIP would be free from state regulation, the FCC intended to step in with regulations affecting public safety.

States have differed in their approach to regulating VoIP. Some states, such as Minnesota, have treated it like a traditional telecommunications service and subjected VoIP providers to consumer protection statutes.¹⁰³ Other states have left VoIP unregulated, treating it like e-mail and streaming video. States, however, are limited in their jurisdiction, since the FCC regulates interstate telecommunications services and can preempt state regulation if it unavoidably conflicts with federal policy and interstate services.¹⁰⁴

95. See In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 F.C.C.R. 14,853, 14,862-63 (2005).

96. See Cable Modem Declaratory Ruling, *supra* note 89, at 4823.

97. In the Matters of Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, 20 F.C.C.R. at 14,855.

98. Vonage Petition, *supra* note 37, at 22,404, 22,409, 22,438.

99. *Id.* at 22,404.

100. Vonage Holdings Corp. v. Minnesota Pub. Utils. Comm'n, 290 F. Supp. 2d 993, 994 (2003 D. Minn.), *aff'd*, 394 F.3d 568 (8th Cir. 2004).

101. Vonage Petition, *supra* note 37, at 22,411.

102. *Id.* at 22,412.

103. *Id.* at 22,404.

104. See *id.* at 22,404; *supra* notes 34-36 and accompanying text.

C. The FCC's Current Approach to Regulating VoIP

Since VoIP services mimic traditional telephone services, users may expect the same things from a VoIP phone call as they would from a traditional landline call, such as reliability and 911 emergency service. However, the technical differences between VoIP and traditional telephony mean that applying regulations created for a traditional telephone system could have the ultimate effect of stifling technological development. While VoIP has managed to escape most regulation, because it is gaining more prominence in the market, the FCC has imposed some limitations on it.

The FCC has declared VoIP to be within its jurisdiction as an interstate service, thus preempting state regulation.¹⁰⁵ In the Vonage Order, the FCC determined that VoIP is largely used as a replacement for long-distance and international calls. Moreover, since the architecture of the service makes it nearly impossible for the provider to determine exactly where the user is located, the FCC decided to treat VoIP as an interstate service for regulatory purposes.¹⁰⁶ This classification freed VoIP from having to secure individual commissions in each state in which a provider wanted to offer its services.¹⁰⁷ While state commissioners often go further to protect consumers than the federal government, these state regulations can create impossibly high barriers to entry for VoIP providers.¹⁰⁸ Thus, the Vonage Order could be seen as a step by the FCC toward limited regulation of VoIP providers. However, as explained below, the FCC has regulated VoIP through the use of its Title I ancillary jurisdiction.¹⁰⁹

Soon after the Vonage Order, the FCC took steps to determine what regulations, if any, should be applied to VoIP.¹¹⁰ The FCC immediately began developing its own consumer protection regulations as a substitute for state commissions.¹¹¹ The FCC has opened a proceeding seeking comments on how VoIP should be

105. See Vonage Petition, *supra* note 37, at 22,404-05.

106. See *id.* at 22,404 (concluding that digital voice "cannot be separated into interstate and intrastate communications for compliance with Minnesota's requirements without negating valid federal policies and rules").

107. See *id.* at 22,432 ("[T]he Minnesota Commission may not require Vonage to comply with its certification, tariffing or other related requirements without negating valid federal policies or rules").

108. *Id.* at 22,416 (providing examples of burdensome state entry requirements).

109. See 47 U.S.C. § 154(i) (2000).

110. See *generally* IP-Enabled Services Notice, *supra* note 59 (seeking "comment on the impact that IP-enabled services . . . have had and will continue to have on the United States communications landscape").

111. *Id.*

regulated. In the IP-Enabled Services Notice of Proposed Rulemaking, the FCC sought comments on numerous regulatory questions, including whether IP-enabled services, including VoIP, should be subject to regulations such as 911, Universal Service, access charges, and access for persons with disabilities.¹¹²

In response to concerns for public safety and the failure of VoIP providers to ensure 911 access on their own, the FCC passed the E-911 Order, which requires all VoIP providers to begin ensuring access to 911.¹¹³ E-911, or enhanced 911, means that a 911 operator will be able to determine the location and telephone number of the caller.¹¹⁴ Previously, VoIP providers would simply tell their customers that 911 services were different through VoIP than on a traditional telephone, but in actuality, sometimes the 911 calls never reached an emergency call center.¹¹⁵ By issuing the E-911 Order, the FCC responded to what it saw as a public safety issue without classifying VoIP as a telecommunications service.¹¹⁶ However, the FCC avoided labeling VoIP as a telecommunications service by exercising its Title I ancillary jurisdiction in issuing this order.¹¹⁷

In 2005, in response to law enforcement requests, the FCC issued the CALEA Order, which requires that VoIP providers comply with the Communications Assistance to Law Enforcement Act (CALEA).¹¹⁸ Essentially, this requires VoIP providers to design their technology in a way that allows law enforcement officials to eavesdrop on conversations.¹¹⁹ Proponents of the order argue that this is necessary for the public safety, especially homeland security: given VoIP's burgeoning popularity, would-be criminals could evade detection by using VoIP services to communicate illegal activities.¹²⁰ Critics, however, are concerned about the possible effects on VoIP as a technology with this new architectural burden on the design of the

112. See *id.*

113. See E911 Requirements Report, *supra* note 31, at 10,246 (requiring VoIP providers to "provide E911 services to all of their customers as a standard feature of the service").

114. *Id.* at 10,252.

115. *Id.* at 10,246.

116. *Id.* at 10,256.

117. *Id.* at 10,261.

118. See In the Matter of Communications Assistance for Law Enforcement Act and Broadband Access Services, 20 F.C.C.R. 14,989 (2005) [hereinafter CALEA First Report].

119. See 47 U.S.C. §§ 1001-1021.

120. CALEA First Report, *supra* note 118, at 15,006 (concluding that "the application of CALEA to all facilities-based broadband Internet access services will assist law enforcement agencies in their vitally important national security role").

system.¹²¹ In addition, these requirements impose significant costs on a developing network.¹²² Thus, the CALEA requirements could create an insurmountable barrier to entry in the market for new VoIP providers. While the FCC once again declined to classify VoIP as a telecommunications or information service under the 1996 Telecommunications Act, the FCC did determine that a “telecommunications carrier,” as defined in the CALEA statute, was not equivalent to a “telecommunications carrier,” under the Telecommunications Act, and extended CALEA to cover both VoIP and broadband Internet access providers.¹²³ Thus, the FCC used its authority under CALEA, and not the Telecommunications Act, to apply additional regulation to VoIP services.¹²⁴

Finally, in the latest regulatory imposition on VoIP services, the FCC passed an interim order mandating that VoIP providers pay into the Universal Service Fund.¹²⁵ The Universal Service Fund is a government program that provides telecommunications service assistance for low-income and rural subscribers, schools, libraries, and rural hospitals.¹²⁶ With the decline in use of traditional telephone services, the base for universal service contributions continued to deteriorate.¹²⁷ In addition, when the FCC deregulated DSL, it eliminated the requirement that both cable modems and DSL contribute to the Universal Service Fund.¹²⁸ As a result, while the demands on the Universal Service Fund continue to increase, the funding base is diminishing. VoIP was added as a contributor to avert an imminent crisis.¹²⁹

121. See Crawford, *supra* note 32, at 915-20 (outlining various implementation difficulties with applying CALEA to VoIP service providers).

122. *Id.* at 918 (“The CALEA Order arguably created a cloud over innovation and product development, particularly for smaller technology providers who might be unable to bear the costs of potentially unlimited compliance requests by law enforcement officers.”).

123. CALEA First Report, *supra* note 118, at 15,033 (noting that “the terms ‘telecommunications carrier’ and ‘information services’ in CALEA cannot be interpreted identically to the way those terms have been interpreted under the [Telec]ommunications Act, in light of Congress’ intent and purpose in enacting CALEA”).

124. *Id.*

125. Universal Service Methodology Order, *supra* note 6, at 7520 (establishing “universal service contribution obligations for providers of interconnected VoIP service”).

126. See 47 U.S.C. § 254(b) (2004).

127. Allen S. Hammond IV, *Universal Service: Problems, Solutions & Responsive Policies*, 57 FED. COMM. L.J. 187, 188-189 (2005).

128. Universal Service Obligations of Broadband Providers, 20 F.C.C.R. 14,853 (2005).

129. See Universal Service Methodology Order, *supra* note 6, at 7520 (noting the “growing pressures on the stability and sustainability of the fund”).

Under this measure, VoIP providers must assess a maximum of 64.9 percent of their revenue for contribution to the Universal Service Fund.¹³⁰ If VoIP providers cannot or will not measure the amount of interstate calls made through their service, they are required to pay 64.9 percent of their revenue as a default.¹³¹ This default encourages VoIP providers to create technology that will allow them to track the geographic location of a caller.¹³² The addition of VoIP providers to the pool of USF contributors marked the first regulatory fee that was imposed on VoIP, placing them in a group with all other telecommunication service providers.¹³³

While the FCC has refrained from classifying VoIP as an information or telecommunications service under the 1996 Telecommunications Act, the various orders described show that the FCC has no qualms about regulating VoIP in the name of public safety or equal access to services. Instead, the FCC uses ancillary jurisdiction under Title I of the Telecommunications Act of 1996 to extend these regulations to VoIP services. This allows the FCC to avoid subjecting VoIP to the entire regulatory scheme of telecommunication access charges, while still extending certain requirements to VoIP providers. Although the FCC has not yet determined a complete regulatory scheme for VoIP providers, the FCC has begun proceedings to ascertain which regulations should apply to VoIP.¹³⁴

*D. Debating the Classifications: Telecommunication Service vs.
Information Service*

Aware of the ramifications of classifying a developing technology, the FCC has sidestepped categorizing VoIP as either a telecommunications service or an information service.¹³⁵ The FCC has instead regulated VoIP through the use of its Title I ancillary jurisdiction.¹³⁶

130. *Id.* at 7545.

131. *Id.* at 7545-48.

132. *Id.* at 7546-47.

133. Amy L. Leisinger, *If it Looks Like a Duck: The Need for Regulatory Parity in VoIP Telephony*, 45 WASHBURN L.J. 585, 602-03 (2006).

134. *See, e.g.*, IP-Enabled Services Notice, *supra* note 59 (seeking “comment on the impact that IP-enabled services . . . have had and will continue to have on the United States communications landscape”).

135. *See supra* Part II.B.

136. 47 U.S.C. § 154(i) (2000).

Some proponents argue that VoIP should be classified as a telecommunications service and be subject to the same regulations as traditional telecommunications services.¹³⁷ They argue that, from the end-user's perspective, VoIP is a substitute for a traditional telephone.¹³⁸ In addition, to a certain extent, VoIP relies on the PSTN to complete any call outside the VoIP network.¹³⁹ Traditional telephone providers argue that, by treating VoIP differently from other telecommunications providers, the FCC is favoring one technology over another.¹⁴⁰ In essence, these telecommunications providers argue that, since VoIP appears to be a telecommunication service and looks like a telecommunications service to consumers, it should be regulated as a telecommunications service.¹⁴¹ In addition, some consumers groups are concerned about a lack of regulatory protection with VoIP services.¹⁴²

137. See *Voice Over Internet Protocol (VoIP): Hearing Before the S. Comm. on Commerce, Science and Transportation*, 108th Cong. (2004) [hereinafter *Senate VoIP Hearing*] (statement of Hon. Stan Wise, President, National Association of Regulatory Utility Commissioners) (discussing the problems with classifying VoIP as an information service including the loss of consumer protections applicable to telecommunications services, and arguing that the FCC should regulate VoIP because the public interest obligations of a service derive from the "functional nature of that service—not from the technology used to deliver it"); Nat'l Assoc. of Regulatory Util. Comm'rs, *Resolution Relating to Voice Over The Internet Telecommunications* (Feb. 26, 2003), http://www.naruc.org/Resolutions/voice_over.pdf (resolving that the FCC should classify VoIP as a telecommunications service).

138. See James B. Speta, *Deregulating Telecommunications in Internet Time*, 61 WASH. & LEE L. REV. 1063, 1098 (2004).

139. See, e.g., *Senate VoIP Hearing*, *supra* note 137 (statement of Glen F. Post, III, Chairman and Chief Executive Officer, CenturyTel Inc.) ("VoIP service providers cannot deliver their services without utilizing and relying upon someone else's network.").

140. *Id.* (statement of Glen F. Post, III, Chairman and Chief Executive Officer, Century Tel Inc.) (arguing that all telecommunications competitors, including VoIP, should "do their fair share to support the national telecommunications infrastructure").

141. *Id.* (statement of Hon. Stan Wise, President, National Association of Regulatory Utility Commissioners) ("Consumers have certain expectations of today's phone system, including ubiquitous, reliable service, a minimum level of service quality, advance notice before termination and important features like E911.").

142. See, e.g., *Coalition of Organizations for Accessible Technology (COAT), Opposition to Motion for Stay or Waiver by the Voice on the Net (VON) Coalition of Certain Regulations and Petition for Waiver by the United States Telecom Association of Certain Regulations Concerning Provision of 711 Dialing, In the Matters of IP-Enabled Services*, WC Docket No. 04-36; *Implementation of Sections 255 and 251(a)(2) of The Communications Act of 1934 as Enacted by The Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Consumer Premises Equipment by Persons with Disabilities*, CG Docket No. 03-123; *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, CC Docket No. 92-105, filed Sept. 27, 2007 (opposing attempts by VoIP providers to waive application of obligations to provide telecommunications relay services, which allows hearing-disabled individuals to use telecommunications services).

VoIP providers, on the other hand, argue that VoIP should be classified as an information service. According to this point of view, VoIP is just like any other information service, the only difference is that voice is being transmitted instead of plain data. VoIP providers argue that any regulation could be detrimental to the development of this new technology.¹⁴³ They want the FCC to declare that VoIP is an information service so that they will be assured of being free from regulations.¹⁴⁴ VoIP providers argue that the absence of a clear regulatory structure impedes the development of new services.¹⁴⁵ Critics argue that telecommunications providers are primarily trying to use the FCC's regulatory structure to increase costs for potential competitors and keep new technologies out.¹⁴⁶

III. RECOMMENDED SOLUTION TO VOIP REGULATION

With the right regulatory environment, VoIP has the potential to completely reinvent the telecommunications landscape. Ideally, VoIP would destroy the idea of a natural monopoly in the telephone industry. Potentially, VoIP could solve one of the FCC's largest problems by creating a competitive market in which large telephone companies must compete with each other, thereby eliminating the need for a complex and inefficient regulatory structure. VoIP could break the mold of the 1996 Telecommunications Act's traditional divisions among information services, telecommunications services, and cable services by allowing one provider to supply all three at the same time. However, in order to avoid limiting VoIP's potential as a new technology, the FCC should proceed carefully in determining which regulations should apply to VoIP.

143. Crawford, *supra* note 32, at 894.

144. See generally Leisinger, *supra* note 133; see also Voice Over Internet Protocol (VoIP) Hearing Before the S. Comm. on Commerce, Science and Transportation, 108th Cong. (2004) (statement of Jeffrey Citron, Chairman and Chief Executive Officer, Vonage Holding Corporation) ("Vonage's form of VoIP is an 'information service' like e-mail.").

145. See, e.g., Voice Over Internet Protocol (VoIP) Hearing Before the S. Comm. on Commerce, Science and Transportation, 108th Cong. (2004) (statement of Glenn A. Britt, Chairman and Chief Executive Officer, Time Warner Cable) ("The absence of a clear regulatory framework for VoIP posed a dilemma for Time Warner Cable as we were preparing to bring the service to market.").

146. See Crawford, *supra* note 32, at 875 (arguing that "incumbents can easily use regulation to raise the rates of entry for new competitors"); see also *id.* at 883 ("One key market-protection move is to pile destructive regulations on new competitors. Several of the Baby Bells have announced that they want to see that all VoIP providers meet the same 'social policy' regulatory requirements that phone companies have had") (footnote omitted).

One of the primary problems with regulating a technology that is very much in its infancy is that any regulation will necessarily alter the growth of the technology and potentially impede innovation. However, by taking a case-by-case approach to regulating VoIP, the FCC creates regulatory uncertainty, which can also hinder the technology's development. In order to avoid limiting VoIP's potential as a new technology, the FCC should build upon the lessons learned through the Computer Inquiries and proceed carefully in determining which regulations should apply to VoIP.

Despite telecommunication providers' arguments to the contrary, the FCC should eliminate this uncertainty by declaring that VoIP is an "information service" under the Telecommunications Act of 1996. Furthermore, while the FCC has a legitimate interest in protecting consumers, ensuring access to 911 emergency services, and assisting law enforcement, thus far, the FCC has not been sufficiently sensitive to the challenges presented by forcing these requirements onto VoIP providers. The FCC should encourage the competitive market for VoIP services by refraining from implementing regulations that would increase barriers to entry into the market.

A. The FCC Should Declare VoIP as an Information Service

The FCC should eliminate market uncertainty by affirmatively declaring that VoIP is an information service under the 1996 Telecommunications Act. As such, VoIP providers would not have to worry about being subject to the complicated regime of access charges that telecommunications services are subject to if, in the future, the FCC decided to regulate VoIP as a telecommunications service. Uncertainty about the regulatory future of a developing technology can increase barriers to entry, because the instability of the dynamics in the market, especially in the case of telecommunications where huge incumbent telephone companies dominate the process, can create problems for planning both the technology and the business structure of a nascent service. By declaring VoIP an information service, the FCC would eliminate much of this uncertainty and allow business planners to develop a structure that is governed by the marketplace and not the fear of regulatory impositions.

B. The FCC Should Apply Limited Regulations to VoIP

In the event that the FCC recognizes VoIP as a replacement for traditional telephone service, VoIP should be subject to only limited regulation, rather than the full-blown regulation applied to other

telecommunication services. These limited regulations should only be applied if needed to eliminate market failures or to prevent a significant threat to public safety. The FCC should only regulate VoIP if there is a compelling government interest. Compelling government interests might include market failures, such as a complete lack of interoperability that could lead to another monopoly, or public safety, such as lack of 911 connectivity.

In the narrow circumstances where there is a compelling interest for regulation, the FCC should allow for innovation on the part of VoIP providers in coming up with a unique solution that takes into account the significant technological differences between VoIP and traditional telephony.¹⁴⁷ The FCC should seek to encourage innovation as much as possible and should refrain from mandating a specific method of compliance. As such, VoIP providers should be given as much leeway as possible on how to deal with these issues in order to allow VoIP providers to develop their own methods of solving a problem that the FCC might identify. With E911 compliance, for example, the FCC should not expect VoIP providers to come up with the same solution as a traditional telephone company.¹⁴⁸ Emergency assistance to VoIP users could be different from traditional 911 services so long as it is effective and reliable.¹⁴⁹

At the same time, the FCC should be sure to create realistic and readily ascertainable expectations with the regulations, so that VoIP providers are not uncertain about whether they will be in compliance with the regulation. The FCC should be especially wary of attempts by VoIP competitors to use the regulatory scheme to impose barriers to entry or impede development of VoIP services.¹⁵⁰ Given VoIP's potential as a new technology, the FCC should attempt to encourage competition and keep the cost of market entry low. In addition, the FCC should be particularly cautious about arguments from incumbent telephone companies with a vested interest in hindering the development of VoIP technology.

147. See *id.* at 892 (outlining the differences between VoIP and traditional telephony). For example, while traditional telephone service is centrally controlled with an interconnected network in place, VoIP is decentralized and voice packets during a phone call can take a variety of different routes before being reassembled at the end-user's device. *Id.*

148. *Id.* at 894 (arguing that the "FCC's June 2005 E911 Order cut off further development of these IP-based E911 services and sent companies scrambling to figure out how to connect with a legacy, centrally-switched, telephony-based 911 system").

149. *Id.* at 893 (giving examples of how VoIP providers were developing plans that would allow them further enhance emergency services by sending medical information about the caller along with the address).

150. See *id.* at 905-12, 921-40.

The FCC should seek to keep barriers to entry as low as possible for VoIP providers in order to encourage competition and market development. In developing regulations for new technologies such as VoIP, the FCC should keep in mind the policy goals of the 1996 Telecommunications Act. The revisions attempted to promote innovation and market competition as much as possible.¹⁵¹ Therefore, in formulating policies and regulations for VoIP, the FCC should be guided by these goals and limit regulation as much as possible.

Since technologies are rapidly outgrowing the statutory scheme, the task of regulating new technologies becomes increasingly difficult. However, by keeping in mind the goals of the 1996 revisions to the Communications Act, the FCC can provide breathing room for new technologies while protecting the public interest.

IV. CONCLUSION

Although congressional action may eventually be required if the distinctions outlined in the 1996 Telecommunications Act become irrelevant, since statutory revision is probably years away, the FCC must decide how to treat VoIP based on the current statute. Relying on congressional action is insufficient for the regulatory uncertainty that a developing technology faces today. Thus, the FCC should classify VoIP as an "information service" under the 1996 Telecommunications Act definitions. This will allow VoIP providers to create business plans knowing that VoIP will be free from common carrier obligations. However, the FCC will still have the flexibility to step in on behalf of the public interest, using its Title I ancillary jurisdiction in the event of a market failure or similar event that creates serious public risks.

The history of the telecommunications industry created a regulatory structure based on the assumption that landline telephone service was a natural monopoly and that competition could only be introduced through a complex scheme that relied on access charges. VoIP challenges these assumptions by creating a viable alternative to landline telephone service that does not rely on the PSTN. Despite the fact that VoIP can be a replacement service for traditional telephone service and may appear to be identical from the point of view of the customer, VoIP should not be regulated as a telecommunications service because of its unique market features.

151. See Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

Rather than following the history of the telecommunications industry, the FCC should follow the course of events that led to the Computer Inquiries and the 1996 Telecommunications Act. In the Computer Inquiries, the FCC looked at the differences in markets between basic and enhanced services and concluded that enhanced services did not require regulatory interference because the market was robust and competitive, with low barriers to entry. Basic services, on the other hand, had high barriers to entry and were monopolized by a few companies. Therefore, the FCC focused on rate regulation and quality assurance for basic services. With the amendments to the Communications Act in 1996, Congress took the same approach, encouraging technological innovation and deregulation through increased competition. The FCC should replicate this analysis in its regulatory approach to VoIP.

Since the VoIP market is competitive and barriers to entry are currently low, the FCC should limit its regulatory interference. The difference in market structure between VoIP and traditional telephone services justifies the differences in regulation. Furthermore, as VoIP or any other yet to be developed service emerges as an actual competitor in the telecommunications market, the FCC can use its forbearance power to deregulate traditional telephone services, allowing the market to take over. By taking a distinct, hands-off approach to VoIP, the FCC can help accomplish the goals of the 1996 Telecommunications Act of promoting competition, deregulation, and innovation.

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