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DIFFERENT ROUTES TO THE SAME “COMPETITIVE”
DESTINATION:

VOIP REGULATION IN THE UNITED STATES AND CANADA

Stephen Rodini[†]

Internet Telephony, also known as Voice over the Internet Protocol (“VoIP”) has changed the way people communicate with one another. Not only is it cheap, but it also offers many features previously unavailable with telephones. This innovation, however, comes at a price for regulators, as the nature of the technology creates unique (and previously unheard of) regulatory obstacles. As such, VoIP presents an interesting scenario for both the U.S. and Canadian governments. In response, both have attempted to address the issue via their own methods. However, for the technology to be truly viable, these governments need to pay close attention to the consumer uptake of VoIP, as well as the potential for anti-competitive harm by providers. In doing so, they must apply the appropriate regulation where necessary *and* leave certain portions of the market unregulated. If properly executed, regulators stand to have a great chance of ensuring VoIP’s viability for the near future.

I. What is VoIP anyway?

VoIP allows users to make phone calls over an Internet broadband connection.¹ This use of Internet technology is a dramatic shift from “traditional” telephony (which is based over phone lines). By using the Internet, VoIP allows users to access many more features than with traditional telephony.² For instance, industry analysts invite us to “imagine a phone call with your mother, she instantly messages you her meatloaf recipe,

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¹ *Voice-Over-Internet Protocol*, Consumer & Governmental Aff. Bureau, <http://www.fcc.gov/voip> (last visited Mar. 20, 2008).

² Konrad L. Trope, *Voice over Internet Protocol: The Revolution in America’s Telecommunications Infrastructure*, 22 *COMPUTER & INTERNET LAW* 1, 1 (2005).

which appears on your computer screen while the phone call takes place through your computer system.”³ VoIP also allows users to clean the “spam” from their voicemail, pager, and email with “a single click of a computer mouse.”⁴ What makes VoIP most attractive, however, is its low price.⁵ Since the majority of the connection takes place in cyberspace, VoIP consumers avoid most of the expensive surcharges that telecommunications companies levy for use of their networks, which also allows VoIP consumers to avoid state and federal taxes associated with the use of such networks.⁶

Another selling point is that many features, which would cost extra under normal telephony, are free with VoIP.⁷ In fact, VoIP users can even have their voicemail sent directly to their email inboxes!⁸ An additional appealing feature is VoIP’s “portability.” This allows users “to create a ‘Virtual Presence’ to provide friends and family with a local number to reach you and thereby avoid long distance toll charges.”⁹

VoIP has many features that make it very attractive for business users as well. Like consumers, businesses also enjoy VoIP’s low prices.¹⁰ In fact, over 80% of the companies planning to deploy VoIP expect a payback on their investment within three years of implementation.¹¹ In reality, however, many companies using VoIP have experienced a complete return within the first year.¹²

Another attractive feature is that VoIP allows businesses to have multiple inbound numbers going to the same phone, which can save a large amount of money on “call centers.”¹³ VoIP also permits companies to provide individual phone lines for employees without having to install and maintain the expensive “private branch exchanges” associated with traditional telephony.¹⁴ This distinction is important because under traditional

³ *Id.* at 1.

⁴ *Id.*

⁵ Craig Ellison, *Talk is Cheaper: Pricing Plans Galore*, PC MAG., Jan. 12, 2005, available at <http://www.pcmag.com/article2/0,1895,1746592,00.asp> (noting that some VoIP services are free, other VoIP services cost more, and traditional calling plans cost even more for both domestic and international calls).

⁶ See Jim Mele, *VoIP: A Fad or the Future?*, FLEETOWNER MAG., Sep. 1, 2004, available at http://fleetowner.com/information_technology/feature/fleet_voip_fad_future/index.html.

⁷ VoIP Advanced Features, http://www.voipaction.com/adv_feat.php (last visited Apr. 1, 2008).

⁸ Benefits of VoIP, <http://www.voipaction.com/benefits.php> (last visited Mar. 20, 2008).

⁹ See *id.*

¹⁰ VOIP EZ, Voice Over IP for Business - Benefits, <http://www.voipez.com/business/benefits.html> (last visited Mar. 20, 2008).

¹¹ See *id.*

¹² See *id.*

¹³ VoIP Advanced Features, *supra* note 7.

¹⁴ Mele, *supra* note 6.

telephony, a business’s phone system only had a limited number of telephone ports.¹⁵ VoIP systems, on the other hand, allow a business to run a number of “virtual users” through each network socket, thereby increasing scalability.¹⁶ Moreover, since VoIP is rooted in software rather than hardware, it is easier to maintain (thus dramatically reducing operating costs).¹⁷

However, VoIP’s greatest benefit is, perhaps, its increase in worker productivity.¹⁸ VoIP technology treats voice data as if it were any other kind of data, allowing users to attach documents to voice messages and to participate in virtual meetings using shared data.¹⁹ As such, VoIP is compatible with Blackberrys and other personal digital assistants (“PDA”), creating a seamless connection between an employee and his or her company’s network.²⁰ “It’s not just having the information, it’s how you use it,” said Ingrid Tremblay, Nortel’s senior manager of product marketing for multimedia.²¹ She continued:

In the past, I would have called a colleague and gone to voice mail if that person was on the phone. Now I can look on my dashboard, check my friend’s [sic] list and see if that person is on the phone, and if they are, I’ll use an IM to invoke a response. It makes better use of everyone’s time.²²

By using VoIP, businesses can cut costs, produce more, earn more, and deliver better services to their customers. For consumers, VoIP allows more features at a much-reduced cost. Therefore, VoIP represents a potential goldmine for both sectors of the market.

II. How does VoIP work and how is it different from traditional telephony?

While traditional telephony and VoIP are essentially the same product, the underlying technologies behind their operations differ dramatically. For example, traditional telephony uses a process known as “circuit switching” to

¹⁵ Voice Over Internet Protocol (VoIP), is4profit.com, http://www.is4profit.com/business-advice/it-telecoms/voip_3.html (last visited Mar. 20, 2008).

¹⁶ *Id.*

¹⁷ *See id.*

¹⁸ *See id.*

¹⁹ *Id.*

²⁰ *See id.*

²¹ Carol Wilson, *VoIP Brings New Productivity to Many Businesses*, TELEPHONY ONLINE, May 23, 2005, available at http://telephonyonline.com/mag/telecom_voip_brings_new.

²² *Id.*

connect phone calls, while VoIP uses “packet switching.”²³ Circuit switching is more complicated and more expensive than packet switching.²⁴

When a person makes a phone call via traditional telephony, the call is routed through a “switch” (a piece of phone call relaying equipment) at the telephone carrier’s “local exchange.”²⁵ Depending on the type of call, the routing is either terminated within the local exchange’s calling area (typically a city and its adjacent suburbs, although larger cities often have multiple local exchanges) or routed through to another network.²⁶ Local calls terminate within the local exchange area.²⁷ Long distance calls, on the other hand, are a little more complicated.²⁸

While similar to local calls, long distance calls go through an additional step in their execution. Instead of terminating within a local exchange area, these calls are routed to a long distance network (usually run by a separate carrier), which transports the data to another local exchange (usually run by another carrier) where it is connected to the other party.²⁹ It is important to note that this process can involve three or more carriers, especially those calling internationally.³⁰ In addition, each step involves “access charges” by local exchange owners for the connecting carrier’s use of its facilities.³¹ These access charges are passed directly to consumers.³²

VoIP calls use a different process called “packet switching.”³³ Packet switching is how data is transmitted over the Internet.³⁴ Vint Cerf, the “Father of the Internet,” described this process using the following analogy:

²³ How Does VOIP Work?, Intertangent Technology Directory, www.intertangent.com/023346/Articles_and_News/more2.html (last visited Mar. 20, 2008) [hereinafter How Does VOIP Work?].

²⁴ Packet versus Circuit Switching: Fundamental Differences, Zvon, <http://www.zvon.org/tmRFC/RFC3439/Output/chapter5.html> (last visited Apr. 3, 2007).

²⁵ *See id.*

²⁶ How Long Distance Works, http://www.phone-bill-busters.com/how_ld.htm (last visited Mar. 20, 2008).

²⁷ *See id.*

²⁸ How Does a Long-Distance Call Work?, Howstuffworks, <http://electronics.howstuffworks.com/question354.htm> (last visited Mar. 20, 2008).

²⁹ How Long Distance Works, *supra* note 26.

³⁰ *See id.*

³¹ CyberTelecom, Access Charge, <http://www.cybertelecom.org/ci/access.htm> (last visited Apr. 1, 2008).

³² *See* Understanding Your Telephone Bill, Consumer & Governmental Aff. Bureau, <http://www.fcc.gov/cgb/consumerfacts/understanding.html> (last visited Mar. 20, 2008).

³³ How Packet Switching Works, <http://www.voip-voice-over-ip.com/technology/packet-switching.htm> (last visited Mar. 20, 2008).

³⁴ What is a Packet?, Howstuffworks, <http://computer.howstuffworks.com/question525.htm> (last visited Mar. 20, 2008).

[T]hink of a packet as postcards sent via postal mail. A postcard contains just a limited amount of information. To deliver a very long message, one must send a lot of postcards. Of course, the post office might lose one or more postcards. One also has to assemble the received postcards in order, so some kind of mechanism must be used to properly order [the] postcards, such as placing a sequence number on the bottom right corner. One can think of data packets in an IP network as postcards.³⁵

While this may seem a bit abstract, packet switching has many advantages over circuit switching. First, packet switched data takes up less space over a network than circuit switched data.³⁶ This extra space allows VoIP providers to make three or four calls (instead of a single call) on a circuit.³⁷ This makes VoIP calls cheaper.³⁸

VoIP comes in three varieties.³⁹ Analog Telephone Adaptor, also known as “Hybrid

VoIP,” is the most common.⁴⁰ This technology involves hooking up a regular telephone to a computer with an Internet connection.⁴¹ A second variety is one that uses a specialized Internet Protocol (“IP”) Phone.⁴² This device looks just like a regular telephone except that it has an Ethernet adapter plugged into an Internet router.⁴³ IP Phones allow users to circumvent their computers, thereby eliminating the need to install software.⁴⁴ In practice, it operates just like a traditional phone, yet it bypasses the traditional phone network entirely.⁴⁵ A final variety involves a personal computer headset or microphone plugged into an Internet-enabled computer.⁴⁶ These latter two types are collectively known as “Pure VoIP.”⁴⁷

³⁵ Understanding VoIP – How Does VoIP Work?, http://www.packetizer.com/voip/papers/understanding_voip/how_voip_works.html (last visited Mar. 20, 2008).

³⁶ How Does VoIP Work?, *supra* note 23.

³⁷ *See id.*

³⁸ VoIP Cheaper Home Solutions Australia, <http://www.ozvoip.com/home-solutions/> (last visited Mar. 20, 2008).

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *See generally* Jim Hanks, Which VoIP Service Is Best for You?, <http://telecom.hellodirect.com/docs/Tutorials/VOIP.1.010902.asp> (last visited Mar. 20, 2008) (profiling various VoIP services).

⁴⁷ *See generally* Ben Charny, *Qwest Drops Access Fees on “Pure VoIP”*, CNET NEWS, Apr. 26, 2004, http://news.com.com/2100-7352_3-5200236.html.

Since it is subject to certain access charges, Hybrid VoIP is the most expensive form of VoIP.⁴⁸ However, because most of the call still travels across the Internet, Hybrid VoIP's prices are significantly less than traditional telephony.⁴⁹ As one would expect then, Pure VoIP is the least expensive since it never connects to the telephone network.⁵⁰

VoIP is a dynamic technology that will change the way people communicate. Because it is so new, special care must be given in attempting to regulate this technology. These issues are examined below.

III. VoIP Regulation in the U.S.

A. *A Brief History of U.S. Telecommunications Regulation*

VoIP's characteristics as both a "telephone" and a "data" service have presented an interesting quandary for American telecommunications regulators. As such, this has led to much litigation as well as multiple rulemaking proceedings. Yet, in order to appreciate VoIP's place in American regulation, one must first understand the history of the Federal Communications Commission ("FCC") (the American telecommunications regulator).

Congress created the FCC in the *Telecommunications Regulation Act of 1934* ("34 Act").⁵¹ The most relevant portion of the '34 Act is its classification of telecommunications companies as "common carriers."⁵² Under this definition, telecommunications companies are common carriers that hold themselves out to the public for hire to provide communications transmission services.⁵³ In doing so, Congress laid the foundation for the FCC's oversight into the provision of telephone services.⁵⁴ As such, these rules were primarily concerned with AT&T, since it held a virtual monopoly on the American telephony market.⁵⁵

⁴⁸ See David Sims, *VoIP to Pay PSTN Access Charges?*, <http://www.tmcnet.com/tmcnet/articles/2005/voip-pstn-charges-fcc-level3-forbearance.htm> (last visited Mar. 20, 2008).

⁴⁹ VoIP FAQ's, <http://www.voipaction.com/faq.php#savemoney> (last visited Mar. 20, 2008).

⁵⁰ See generally Charny, *supra* note 47.

⁵¹ About the FCC, Federal Communications Commission, <http://www.fcc.gov/aboutus.html> (last visited Mar. 20, 2008).

⁵² See Jared S. Dinkes, *Rethinking the Revolution: Competitive Telephony in a Voice Over the Internet Protocol Era*, 66 OHIO ST. L. J. 833, 849 (2005), available at <http://moritzlaw.osu.edu/lawjournal/issues/volume66/number4/dinkes.doc>.

⁵³ See Communications Act of 1934, 47 U.S.C. § 151 (1934) available at <http://www.fcc.gov/Reports/1934new.pdf>.

⁵⁴ Dinkes, *supra* note 52, at 848.

⁵⁵ See generally *id.* at 847.

The Department of Justice (“DOJ”) has also had a tremendous influence on the FCC’s remit. This influence was, perhaps, most clearly evinced in the 1982 Modified Final Judgment (“MFJ”) mandating the breakup of AT&T’s monopoly.⁵⁶ In 1974, the DOJ sued AT&T in federal court for violations of the Sherman Antitrust Act.⁵⁷ After a seven-year legal battle (November ‘74 – January ‘82), AT&T agreed to the DOJ’s settlement proposals.⁵⁸ The MFJ was a part of this agreement; it forced the company to relinquish all of its local subsidiaries (known as the “Bells”) and exit the local telecommunications market entirely.⁵⁹ AT&T then became a competitive long distance carrier, as it was also forced to open its long distance networks to competition.⁶⁰ AT&T’s former subsidiaries became known as the “Regional Bell Operating Companies” (“RBOCs”), which retained control over their local exchanges and possessed monopolies in their respective regions.⁶¹ Over the next two decades, these RBOCs would become some of the most powerful companies in the world: Verizon, SBC, Qwest, and BellSouth.⁶²

With the help of the FCC, Congress addressed the RBOCs’ monopolies in the 1996 *Telecommunications Act* (“‘96 Act”). The ‘96 Act’s goal was to open up the local exchange and exchange access markets to competition.⁶³ The ‘96 Act forced each RBOC to completely open its network to competitors through a process known as “unbundling the local loop.”⁶⁴ This has proven quite difficult.⁶⁵

The ‘96 Act also had a dramatic effect on Internet-based technologies. It did this by making a distinction as to which activities would be subject to federal regulation.⁶⁶ Under the Act, “telecommunications services” would be regulated, while “information services” would not.⁶⁷ Telecommunications

⁵⁶ Legal History of Telecommunication, <http://www.technologyforall.com/TechForAll/legalHistory.html> (last visited Mar. 20, 2008).

⁵⁷ *Id.*

⁵⁸ See Bell System Memorial: AT&T Divestiture or “Breaking Up Is Hard To Do”, http://www.porticus.org/bell/att_divestiture.html (last visited Mar. 20, 2008) [hereinafter Bell System Memorial].

⁵⁹ See generally Dinkes, *supra* note 52 at 850.

⁶⁰ See Bell System Memorial, *supra* note 58.

⁶¹ *Id.*

⁶² ILLINOIS ECONOMIC AND FISCAL COMMISSION, SPECIAL REPORT ON TELECOMMUNICATIONS DEREGULATION ISSUES AND IMPACTS, at 4 (2001), available at http://12.43.67.2/commission/cgfa2006/Upload/telecom_dereg01.pdf.

⁶³ Legal History of Telecommunication, *supra* note 56.

⁶⁴ See generally Nicholas Economides, The Telecommunications Act of 1996 and Its Impact, <http://www.stern.nyu.edu/networks/telco96.html> (last visited Mar. 20, 2008).

⁶⁵ See generally James L. Gattuso, Local Telephone Competition: Unbundling the FCC’s Rules, <http://www.heritage.org/Research/Regulation/bg1621.cfm> (last visited Apr. 1, 2008).

⁶⁶ Trope, *supra* note 2, at 7.

⁶⁷ *Id.*

services were defined as “the offering of telecommunications for a fee directly to the public . . . regardless of the facilities used.”⁶⁸ Information services were defined as:

the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing or making available information via telecommunications . . . but does not include any use of any such capability for the management, control or operation of a telecommunication system or the management of a telecommunication service.⁶⁹

All telecommunications service providers are obligated to provide “common carrier obligations,” which include things like 911 emergency calling, Universal Access, and special services for the hearing and sight impaired.⁷⁰ Information service providers, on the other hand, are considered to reside “in an area in which less regulation would be imposed so as to promote the growth and development of the information superhighway.”⁷¹ These classifications have set off many disputes between state regulators, telecommunications companies, and even the U.S. Supreme Court.⁷²

On February 12, 2004, the FCC classified Pure VoIP as an information service.⁷³ In doing so, then Commissioner Michael Powell noted that “[Pure VoIP] is in no way different than e-mail and other peer-to-peer applications blossoming on the Internet. Such services have never been held to be telecommunications services.”⁷⁴ The FCC has yet to classify whether Hybrid VoIP is such a service.⁷⁵ It is important to note, however, that both Pure and Hybrid VoIP will have certain common carrier obligations regardless of how the FCC chooses to define them under the ‘96 Act.

B. Wiretapping the Bad Guys: VoIP and CALEA

The above trend started in March of 2004, when several law enforcement agencies requested that the FCC authorize the wiretapping of VoIP

⁶⁸ Communications Act of 1934, 47 U.S.C. § 153(46) (2000), available at http://supreme.lp.findlaw.com/supreme_court/briefs/04-277/04-277.mer.resp.private.app.pdf.

⁶⁹ *Id.* at § 153(20).

⁷⁰ Trope, *supra* note 2, at 7.

⁷¹ *Id.*

⁷² *Id.* at 8, 9.

⁷³ Declan McCullagh & Ben Charny, *FCC: ‘Pure’ VoIP Not a Phone Service*, CNET NEWS, Feb. 12, 2004, http://news.com.com/2100-7352_3-5158105.html.

⁷⁴ *Id.*

⁷⁵ *See generally id.*

communications.⁷⁶ These agencies also asked the FCC to require that VoIP providers make their networks accessible to interception efforts.⁷⁷ Such requests fell under the Communications Assistance for Law Enforcement Act (“CALEA”).⁷⁸ On August 5, 2005, the FCC agreed and mandated that VoIP providers allow law enforcement agencies access in its CALEA Order.⁷⁹ The providers were given until March 2007 to implement this order.⁸⁰

To do this, the FCC applied the CALEA Act’s definition of “telecommunications carrier” to all VoIP providers.⁸¹ While this may seem confusing (and not to mention opposed to Pure VoIP’s classification as an information service), the FCC explained that:

[t]he Commission found that the definition of “telecommunications carrier” in CALEA is broader than the definition of that term in the Communications Act and can encompass providers of services that are not classified as telecommunications services under the Communications Act. CALEA contains a provision that authorizes the Commission to deem an entity a telecommunications carrier if the Commission “finds that such service is a replacement for a substantial portion of the local telephone exchange.”⁸²

Whether the FCC follows this logic in the application of other federal mandates remains to be seen. It is interesting to note, however, the flexibility the Commission is willing to apply to this standard.

In response, in January 2006, various academic, business, and interest groups, including the ACLU, challenged the CALEA Order in the U.S. Court of Appeals for the D.C. Circuit.⁸³ In their opening brief, the petitioners alleged that the FCC inappropriately widened Congress’s limited scope of CALEA.⁸⁴ The petitioners also alleged that “[d]espite the shared regulatory history and nearly identical definitions of ‘information service’ in the

⁷⁶ Trope, *supra* note 2, at 11.

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ Press Release, Fed. Commc’n Comm’n, FCC Requires Certain Broadband and VoIP Providers Accommodate Wiretaps (Aug. 5, 2005) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260434A1.doc [hereinafter FCC Requires Certain Broadband].

⁸⁰ Trope, *supra* note 2, at 13.

⁸¹ FCC Requires Certain Broadband, *supra* note 79.

⁸² *Id.*

⁸³ Others File Brief with Court Challenging FCC Wiretapping Ruling, Center for Democracy and Technology, <http://www.cdt.org/headlines/855> (last visited Mar. 20, 2008).

⁸⁴ See Brief for Petitioners at 6-9, American Council on Educ. v. Fed. Commc’n Comm’n, No. 01-1404, (D.C. Cir. Jan. 26, 2006).

Communications Act and in CALEA, the Commission adopted a diametrically opposed construction of 'information service' in the *CALEA Order*.⁸⁵ Moreover, the petitioners explained that this treatment of information services was "arbitrary and capricious."⁸⁶ Finally, the petitioners urged the D.C. Circuit to vacate the CALEA Order in its entirety and remand the issue to the FCC for further hearings.⁸⁷

In a 2-1 decision, the D.C. Circuit affirmed the Order.⁸⁸ It agreed with the Commission that the CALEA definitions differed from the '96 Act.⁸⁹ This was because the CALEA Act did not treat the phrases "telecommunications carrier" and "information services" as mutually exclusive terms.⁹⁰ As such, the court found the FCC's interpretation of the law reasonable.⁹¹

Lost in this litigation is the very real problem that VoIP providers may not actually possess the technology to implement the CALEA Order. Many industry experts concede that such compliance is "years down the road."⁹² Moreover, the technology that would allow law enforcement officials access to a VoIP transmission would also enable computer virus attacks or other intrusions.⁹³ This is a troubling scenario, which needs the FCC's full attention.

C. *Calling for Help in an Emergency: VoIP and E911*

Another issue involves the application of "Enhanced 911" ("E911") services to VoIP. The FCC requires all telecommunications *and* VoIP providers to furnish this service.⁹⁴ E911 is a location technology that enables emergency services to find the geographic position of callers.⁹⁵ It works by having 911 calls routed through "public safety answering points ("PSAPs"), which display the number and location of the caller to the dispatcher.⁹⁶ CNet notes, however, that the tracing of VoIP calls is extremely difficult since:

⁸⁵ *Id.* at 14.

⁸⁶ *Id.* at 31.

⁸⁷ *Id.* at 47.

⁸⁸ *See* American Council on Educ. v. Fed. Comm'n Comm'n, 451 F.3d 226, 236 (D.C. Cir. 2006).

⁸⁹ *Id.* at 233.

⁹⁰ *Id.*

⁹¹ *Id.* at 234.

⁹² Trope, *supra* note 2, at 14.

⁹³ *Id.*

⁹⁴ Press Release, Fed. Comm'n Comm'n, Commission Requires Interconnected VoIP Providers to Provide Enhanced 911 Service, (May 19, 2005) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-258818A1.pdf.

⁹⁵ Enhanced 911 – Wireless Services, Federal Communications Commission, <http://www.fcc.gov/911/enhanced> (last visited Mar. 20, 2008).

⁹⁶ *Id.*

the user’s phone number is associated with the router/telephone adapter provided by the VoIP service vendor. That router/adapter can be moved anywhere a broadband connection is available, which means that a phone number with a 415 area code might be anywhere from Kalamazoo to Honolulu.⁹⁷

Nevertheless, AT&T claims that it can comply with the FCC’s requirements through its “Heartbeat Process.”⁹⁸ This process apparently requires VoIP callers “to verify their location each time they initiate a connection for their service.”⁹⁹ Whether or not this is a viable solution remains to be seen.

Regardless of its feasibility, VoIP providers have fought this requirement. One such instance is when a consortium of providers (led by Nuvio) filed an emergency motion to stay E911’s mandatory implementation date in the D.C. Circuit.¹⁰⁰ Nuvio argued that in order to implement E911, they would have to provide these services at “every point in the United States” and they did not have the resources to do so.¹⁰¹ Moreover, Nuvio argued that E911’s implementation would force the company to disconnect “90% of its customers.”¹⁰² In turn, Nuvio argued that the disconnection of such large numbers of their customers would actually decrease “the risk that an individual user would have trouble getting help in a true emergency.”¹⁰³ The D.C. Circuit felt otherwise, ruling that the FCC “adequately considered not only the technical and economic feasibility of the deadline, inquiries made necessary by the bar against arbitrary and capricious decision-making, but also the public safety objectives the Commission is required to achieve.”¹⁰⁴

While the prospects may seem dim for companies like Nuvio, the FCC has seemingly provided an “escape clause” for most other entities. Namely, the Commission decided to limit the enforcement of E911 obligations for those VoIP providers that have notified at least 90% of their customers as to the limitations of VoIP in emergency calling.¹⁰⁵ This would seemingly give competitors an “out,” which would allow their continued operation.

⁹⁷ Felisa Young, *Is VoIP Dangerous?*, CNET REVIEWS, Jun. 22, 2005, http://reviews.cnet.com/4520-9238_7-6250226-1.html.

⁹⁸ Walaika K. Haskins, *AT&T Claims Solution to E911 Problem*, TOP TECH NEWS, Oct. 11, 2005, http://www.toptechnews.com/story.xhtml?story_Id=38607.

⁹⁹ *Id.*

¹⁰⁰ *See Nuvio v. Fed. Commc’n Comm’n*, 473 F.3d 302 (D.C. Cir. 2006).

¹⁰¹ *See id.* at 305.

¹⁰² Brief for Petitioner, *Nuvio v. Fed. Commc’n Comm’n*, No. 05-1248 (D.C. Cir. Nov. 1, 2005).

¹⁰³ *Id.* at 19.

¹⁰⁴ *Nuvio v. Fed. Commc’n Comm’n*, *supra* note 100, at 303.

¹⁰⁵ Carol Wilson, *FCC to Limit VoIP E911 Enforcement*, TELEPHONY ONLINE, Sept. 28, 2005, available at http://telephonyonline.com/voip/regulatory/FCC_VoIP_E911_092805.

D. Ensuring Access to All: VoIP and Universal Service Tariffs

Another interesting regulatory question is what, if any, Universal Service Fund contributions VoIP providers owe. These funds are a way to ensure that *all* Americans, even those in rural, remote, or those under economic hardship, receive access to a telephone. Universal Service was mandated in the '96 Act, and its goals are three-fold: 1) to promote the availability of quality services at just, reasonable, and affordable rates; 2) to increase access to advanced telecommunications services throughout the U.S.; and 3) to advance the availability of services to all consumers (including those in low income, rural, insular, and high cost areas) at rates that are reasonably comparable to those charged in urban areas.¹⁰⁶ In addition to federal and state funding for the program, the FCC mandates that providers charge their customers for this on their phone bills.¹⁰⁷

As one would expect, the applicability of such tariffs to VoIP has proven quite controversial. For a while, it was unclear as to whether the FCC would mandate such charges. However, the FCC clarified this situation when it ordered Hybrid VoIP providers to contribute to the Universal Service fund in June 2006.¹⁰⁸ The next step for the FCC is the implementation of such requirements, which recently has been subject to suit in the D.C. Circuit Court of Appeals.¹⁰⁹

E. The U.S. Regulatory Quandary: Complaints and Court Cases

While the U.S. is heading in the right direction by applying the above provisions to VoIP, its current regulatory scheme is needlessly complex and very confusing. For example, the FCC uses *multiple* definitions for VoIP in order to "fit" it into various regulations, yet it has no overarching classification as to whether it is an information or telecommunications service. This gray area desperately needs clarification. Having a clear regulatory scheme for VoIP would allow more efficiency among providers. They also would be able to determine what common carrier obligations apply, and plan their budgets accordingly. This would also benefit consumers because they would not be subject to any unforeseen rate increases due to

¹⁰⁶ See *Universal Service*, Fed. Comm'n Comm'n, http://www.fcc.gov/wcb/tapd/universal_service (last visited Mar. 20, 2008).

¹⁰⁷ See generally *id.*

¹⁰⁸ Anne Broache, *FCC Approves New Internet Phone Taxes*, CNET NEWS, Jun. 21, 2006, http://news.zdnet.com/2100-1035_22-6086437.html.

¹⁰⁹ See Respondents Brief, *Vonage v. Fed. Comm'n Comm'n*, No. 06-1276, (D.C. Cir. Nov. 21, 2006) available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-268700A1.pdf.

regulatory surcharges on their services. Finally, a concrete classification would eliminate the need for future litigation on this issue – thus freeing up many court dockets. As such, Congress has two remedies for this situation: 1) create a new regulatory regime, or 2) classify Hybrid VoIP according to the ‘96 Act’s definitions.

To date, state telecommunications regulators have attempted to rectify this issue. One example is *Vonage Holdings Corp. v. Minnesota Public Utilities Commission*, 290 F. Supp. 2d 993 (Minn. Oct. 16, 2003). Here, the Minnesota Public Utilities Commission (“Minnesota PUC”) attempted to apply common carrier regulations to the VoIP provider Vonage, ultimately threatening to pull the company’s license to operate in the state if it did not comply.¹¹⁰ In essence, the Minnesota PUC was attempting to classify VoIP as a telecommunications service. In response, Vonage sought an injunction against the regulator in federal District Court.¹¹¹

In reaching its decision to grant the injunction, the Court went ahead and classified VoIP as an information service, stating that it offered the “capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.”¹¹² As such, the court concluded that until Congress speaks more clearly on this issue, states cannot regulate an information services provider such as Vonage as if they offered telecommunication services.¹¹³ U.S. District Courts in New York, Missouri, and Nebraska have applied this holding to cases involving VoIP in their districts.¹¹⁴

The Eighth Circuit Court of Appeals upheld the holding, but it did so for different reasons.¹¹⁵ The Eighth Circuit based its decision on a FCC memorandum released while *Vonage* was pending appeal.¹¹⁶ This memo concluded that VoIP could not be separated into interstate and intrastate components for regulation, and that the FCC had *exclusive* jurisdiction over the technology.¹¹⁷

¹¹⁰ See generally, *Vonage Holdings Corp. v. Minn. Pub. Utilities Comm’n*, 290 F. Supp. 2d 993, 996 (Minn. Oct. 16, 2003).

¹¹¹ *Id.* at 994.

¹¹² *Id.* at 999 (quoting 47 U.S.C. § 153(20)).

¹¹³ Clinton Howard Brannon, *COMMENTARY: Reach Out and Tax Someone: What Does the Future Hold for the Taxation and Regulation of Voice Over Internet Protocol Telephone Services?*, 57 ALA. L. REV. 173, 186 (2005).

¹¹⁴ See, e.g., *Verizon N.Y., Inc. v. Global NAPS, Inc.*, 463 F.Supp.2d 330 (E.D.N.Y. 2006); *Vonage Holdings Corp. v. N.Y. State PSC*, 2005 U.S. Dist. LEXIS 33121, at *27 (S.D.N.Y. Dec. 14, 2005); *Sw. Bell Tel., L.P. v. Mo. PSC*, 461 F.Supp.2d 1055, 1086 (E.D. Mo. 2006); and *Qwest Comm. Corp. v. Neb. PSC*, 2005 U.S. Dist. LEXIS 23620, at *11 (D. Neb. Oct. 7, 2005).

¹¹⁵ Brannon, *supra* note 113, at 186.

¹¹⁶ *Id.*

¹¹⁷ *Id.* (quoting 19 FCC Rcd 22404, 22405).

While the Eighth Circuit's holding resolved who has jurisdiction over VoIP, it has done nothing to clarify what type of services it is. As noted above, the FCC has classified Pure VoIP as an Information Service, but to date, has not classified Hybrid VoIP.¹¹⁸

In an attempt to address this gray area, commenters have called the '96 Act's definitions "outdated."¹¹⁹ Their reasoning is that "[t]echnological innovations and converging markets make it increasingly troublesome for regulators and courts to compartmentalize services using classifications that trigger different types and natures of regulation."¹²⁰ Such convergence leads to much confusion, as courts applying these classifications can reach many different and inconsistent conclusions.¹²¹ Service classifications directly affect the range of regulation, the applicability of tax obligations, and the scope of jurisdiction by federal, state, and municipal agencies.¹²² Inconsistent standards among judicial districts or circuits for a nationally based technology like VoIP is a scary proposition!

As a solution, some commenters call for Congress to institute a "layered regulatory approach."¹²³ This would call for the reclassification telecommunications services according to five factors:

1. their functional equivalence to traditional telephony;
2. the substitutability between services;
3. whether they access the traditional telephone network and use North American-styled numbering Plan;
4. whether they are peer-to-peer communications versus services broadcast across a telephone network services; and
5. the underlying transmission technology used by the service.¹²⁴

While this is a compelling suggestion, it would require the repeal of a major portion of the '96 Act. If Congress were to institute such a regime, it could also serve to undo all the clarity that the Act has brought. Every

¹¹⁸ McCullagh & Charny, *supra* note 73.

¹¹⁹ See Rob Freden, *The FCC's Name Game: How Shifting Regulatory Classifications Affect Competition*, 20 BERKELEY TECH. L.J., 1275, 1278 (2004).

¹²⁰ *Id.*

¹²¹ *Id.* at 1280.

¹²² *Id.* at 1281.

¹²³ See *id.* at 1293.

¹²⁴ *Id.* at 1312.

telecommunications and Internet service would have to be reclassified according to this complex criterion. This would undoubtedly lead to numerous court actions, as well as countless amounts of money spent on litigation.

F. Hybrid VoIP IS a Telecommunications Service

The correct solution to the above dilemma would be to classify Hybrid VoIP as a telecommunications service. This solution would avoid any complicated overhauls to the regulatory regime and provide definite clarity to VoIP providers at the same time. Hybrid VoIP is the functional equivalent of traditional telephony.¹²⁵ Most of the time it involves the same telephones used for traditional telephony, and it connects to the traditional phone network. Why then should Hybrid VoIP be classified as anything but a telecommunications service? Moreover, if VoIP were not classified as such, traditional telephony providers would ask: “If we have to expend resources to comply with regulatory requirements, why are VoIP telephony providers, who offer virtually the same services, exempt from the requirements?”¹²⁶ For the sake of fairness, the FCC should impose those same obligations on Hybrid VoIP providers.

Proponents of a new regulatory scheme may point to the fact that the ‘96 Act’s definitions are outdated.¹²⁷ Yet, the FCC has already accounted for this situation by classifying Pure VoIP as an information service.¹²⁸ In doing so, the FCC left Hybrid VoIP open to classification as a telecommunications service. As such, the relative ease with which one is able to fit these into the ‘96 Act’s categories makes it relevant today. Moreover, this classification is critical to ensure fairness to the other competitors in the market. Proponents of ‘96 Act classification argue, “if it looks like a duck, walks like a duck, quacks like a duck, it must be a duck” and it “should be regulated accordingly.”¹²⁹ I agree with this logic. Hybrid VoIP looks like traditional telephony, “quacks” like traditional telephony, and therefore, must be regulated as a telecommunications service.

The FCC is correct to apply common carrier obligations on Hybrid VoIP providers for the time being. It is the same product as traditional telephony and uses the same equipment. To be blunt, Hybrid VoIP is not distinct enough from traditional telephony to warrant the complete overhaul of the

¹²⁵ See Amy L. Leisinger, *If It Looks Like a Duck: The Need for Regulatory Parity in VoIP Telephony*, 45 WASHBURN L.J. 585, 613 (2006).

¹²⁶ *Id.* at 614.

¹²⁷ Freden, *supra* note 119.

¹²⁸ See Declan McCullagh & Ben Charny, *supra* note 73.

¹²⁹ Leisinger, *supra* note 125, at 613.

'96 Act. Such a task would be prohibitively expensive – both in man hours and subsequent litigation. The FCC has a perfectly adequate regulatory tool in its arsenal at the present.

While it may seem confusing why the Commission chose not to impose common carrier obligations on Pure VoIP, in reality it is not. Pure VoIP, by its very nature, is an information service.¹³⁰ It never connects to the phone network and therefore, does not use the same facilities as Hybrid VoIP. However, Congress needs to pay careful attention to the uptake of Pure VoIP services. If such services become predominant, Congress could very well have to impose regulatory obligations on Pure VoIP as well – either by creating a new classification for it (and associated technologies) or completely overhauling the '96 Act.

IV. VoIP Regulation in Canada

A. *A Brief History of Canadian Telecommunications Regulation*

Canada has taken a different approach to VoIP regulation. Namely, the CRTC (Canada's telecommunications regulator) installed a regime of limited regulation.¹³¹ However, like in the U.S., one needs to understand the historical context of Canadian telecommunications regulation in order to appreciate the CRTC's approach.

Canadian telecommunications regulation began in 1906 under the auspices of its railroad regulator, the Board of Railway Commissioners ("BRC").¹³² Parliament granted the BRC this power through the expansion of the *Railway Act*.¹³³ The semi-autonomous BRC's remit was to ensure "just and reasonable" telephone rates that were not "unjustly discriminatory or

¹³⁰ Ben Charney & Evan Hansen, *Court Hangs Up State VoIP Rules*, CNET NEWS, Oct. 17, 2003, http://news.com.com/2100-7352_3-5092708.html.

¹³¹ See generally Dwayne Winseck, *Canadian Telecommunications: A History and Political Economy of Media Reconvergence*, 22-2 CANADIAN J. OF COMM. (1997), available at <http://www.google.com> (search "Dwayne Winseck Canadian Telecommunications A History and Political Economy of Media"; then follow "Canadian Journal of Communication – Vol. 22, No. 2 (1997)" hyperlink) [hereinafter *Canadian History of Media Reconvergence*] (discussing how the CRTC's historical treatment of media technologies has led to the current boundaries between different media technologies; encouraging the CRTC to revisit and disband its regulation strategy in favor of policies promoting reconvergence and broadband telecommunications).

¹³² Dwayne Winseck, *A Social History of Canadian Telecommunications*, 20-2 CANADIAN J. OF COMM. (1995), available at <http://www.google.com> (search "Dwayne Winseck Social History of Canadian Telecommunications"; then follow "Canadian Journal of Communication – Vol. 22, No. 2 (1995)" hyperlink)[hereinafter *A Social History of Canadian Telecommunications*].

¹³³ *Canadian History of Media Reconvergence*, *supra* note 131.

unduly preferential.”¹³⁴ In practice, however, the BRC was reluctant to exercise this authority.¹³⁵ This allowed Canadian telecommunications carriers to form “natural” monopolies in their respective markets.¹³⁶ As such, by the end of World War II, the fundamentals of Canadian regulation were in place.¹³⁷

Like the U.S., Canada regards telecommunications providers as “common carriers.”¹³⁸ However, Canada’s concept gives more weight to social welfare.¹³⁹ For example, the BRC mandated that company charters reflect public interest notions.¹⁴⁰ Canadian regulators perceive telecommunications as a part of the social and economic infrastructure of a community.¹⁴¹ One can see this in the BRC’s emphasis on policies that prevented providers from influencing the messages flowing through their networks, and the requirement to offer non-discriminatory access to their system based on just and reasonable rates.¹⁴² As would happen, such rates were guaranteed using heavy government subsidies to telecommunications providers.¹⁴³

Under this regulatory scheme, a number of regional providers flourished. These would each become quite powerful and eventually comprise the juggernaut “Stentor Alliance” industry group.¹⁴⁴ Members included Bell Canada (the largest operator), TELUS, and Manitoba Telecom Services.¹⁴⁵ These companies are referred to as Canada’s “incumbent local exchange carriers,” due to their ownership of every local exchange in their respective markets.¹⁴⁶

¹³⁴ *A Social History of Canadian Telecommunications*, *supra* note 132.

¹³⁵ *See id.*

¹³⁶ *See id.*

¹³⁷ *Id.*

¹³⁸ *Canadian History of Media Reconvergence*, *supra* note 131.

¹³⁹ *Id.*

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *See id.*

¹⁴³ *See generally* Neil Quigley and Margaret Sanderson, *Going Mobile – Slowly: How Wireline Telephone Regulation Slows Cellular Network Development*, C.D. HOWE INST. COMMENT., Dec. 1, 2005, available at http://www.cdhowe.org/pdf/commentary_222.pdf.

¹⁴⁴ *See generally* Warren Caragata, *Call-Net Takeover Shakeup*, *The Canadian Encyclopedia*, July 13, 1998, available at <http://www.canadianencyclopedia.ca/index.cfm?PgNm=TCE&Params=M1ARTM0011735>.

¹⁴⁵ *Telecom Decision: Telephone Service to High-cost Serving Areas*, Canadian Radio-television and Communications Commission, ¶ 1, Oct. 19, 1999, available at <http://www.crtc.gc.ca/archive/eng/Decisions/1999/DT99-16.htm> [hereinafter *CRTC Telecom Decision*] (The Stentor Alliance, which was comprised of SaskTel, a non-federally-regulated company, and the federally-regulated companies of BC TEL, Bell Canada, Island Telecom, MTT, MTS, NBTel, NewTel, and TELUS, disbanded in 1998.); *see also* Press Release, Industry Canada, *Industry Canada and the Stentor Companies Announce Extension of High Speed Internet Access for All First Nations Schools to 2003* (Nov. 22, 1997).

¹⁴⁶ *See CRTC Telecom Decision*, *supra* note 145, ¶¶ 1, 3.

In 1968, Parliament passed the *Broadcasting Act*, which created the Canadian Radio-television Commission.¹⁴⁷ Eight years later, Parliament modified the Commission's remit to include the regulation of telecommunications providers.¹⁴⁸ In doing so, the Canadian Radio-television Commission became known as the Canadian Radio-television and Telecommunications Commission – today's CRTC.¹⁴⁹ The CRTC continued Canada's tradition of preserving the social role of telecommunications.¹⁵⁰ In fact, the Commission has gone so far as to describe its role as “to maintain a delicate balance in the public interest between the cultural, social, and economic goals of broadcasting and telecommunications” legislation.¹⁵¹

Currently, the CRTC is governed by the *1993 Telecommunications Act* (“‘93 Act”).¹⁵² However, unlike the ‘96 Act, the ‘93 Act does not differentiate between telecommunications and information service providers.¹⁵³ The ‘93 Act also did not force open any services to competition. That process started before its passing. Instead, it mandated the CRTC's forbearance from acting once it found specific markets sufficiently competitive.¹⁵⁴

Another interesting aspect of Canadian telecommunications regulation is the “Canadian Ownership Policy.” This mandates that all publicly traded Canadian providers who own telecommunications transmission facilities have at least 80% of their shares owned by Canadians.¹⁵⁵ In addition, their board of directors must be comprised of at least 80% of Canadians – ensuring perpetual Canadian control.¹⁵⁶

As mentioned above, the CRTC actually began opening up its telecommunications markets to competition a year before the ‘93 Act.¹⁵⁷ This

¹⁴⁷ See *The CRTC's Origin*, Canadian Radio-television and Telecommunications Commission, <http://www.crtc.gc.ca/eng/BACKGRND/Brochures/B19903.htm> (last visited Mar. 20, 2008).

¹⁴⁸ See *id.*

¹⁴⁹ *Id.*

¹⁵⁰ See generally *id.*

¹⁵¹ *The CRTC*, Canadian Radio-television and Telecommunications Commission, <http://www.crtc.gc.ca/eng/BACKGRND/Brochures/B29903.htm> (last visited Mar. 20, 2008).

¹⁵² *Id.*

¹⁵³ See Telecommunications Act of 1993 S.C., ch. 38, § 2(1) (1993) (Can.), available at <http://www.canlii.ca/ca/sta/t-3.4>.

¹⁵⁴ *Telecommunications Services in Canada: An Industry Overview, Section 6: The Evolution of Competition in the Canadian Telecommunications Service Market*, Industry Canada, Jun. 8, 2005, <http://strategis.ic.gc.ca/epic/internet/insmt-gst.nsf/en/sf06286e.html>.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ See generally Francoise Bertrand, Chairperson, Canadian Radio-television Telecomm. Comm'n, Address to the Canadian Turnaround Management Association: The Future of the CRTC: More Referee than Regulator (April 1, 1997), available at <http://www.crtc.gc.ca/ENG/NEWS/SPEECHES/1997/S970401.HTM> (describing how toll

process started in Canada’s long distance markets.¹⁵⁸ What was so interesting about this decision, however, was that the CRTC decided to almost completely deregulate these services – literally, the opposite of what the FCC did in its ‘96 Act.¹⁵⁹ As such, this allowed incumbent local exchange providers to charge their competitors whatever they wanted for access to their networks (with the resulting huge rate increases for consumers).¹⁶⁰ As a response, the CRTC asserted that it would only “re-balance” local rates after carefully considering the need from a broader telecommunications industry standpoint.¹⁶¹ This decision would have disastrous consequences for the quality of Canada’s telecommunications services.¹⁶² In fact, while telecommunications companies were required to adhere to stringent service standards under Canada’s old regulatory system, service quality has actually deteriorated under the new regime.¹⁶³ The CRTC has yet to effectively address this issue.

In 1997, the CRTC opened up local telephone services to competition.¹⁶⁴ Perhaps taking a lesson from the past, however, the CRTC decided not to deregulate the incumbent local exchange carriers’ rates.¹⁶⁵ As such, it remains to be seen whether these attempts are truly viable.

B. *Less is More: Canada’s Limited Regulation of VoIP*

The CRTC has taken a similar approach regarding VoIP. On May 12,

usage has grown by 10% since the introduction of long-distance competition in the telecom industry).

¹⁵⁸ *See id.*

¹⁵⁹ *See generally* Willie Grieve & Stanford Levin, *Telecom Competition in Canada and the U.S.: The Tortoise and the Hare*, Twenty-Fifth Annual Telecommunications Policy Research Conference, Sept. 27-29, 1997 (describing the distinctions between Canada and U.S. policies and how Canada’s policies, which do not discriminate against facilities-based competition, will see more competition, more bundling, and more convergence).

¹⁶⁰ *See generally* *CRTC Hearings into Phone Rates Begin*, CBC NEWS, Oct 5, 2001, available at http://www.cbc.ca/news/story/2001/10/01/phonehearings_011001.html (describing huge rate increases that customers suffered, including how customers paid up to \$137 more for phones service in 2000 than they did in 1995, as a result of the way the CRTC opened up local markets for competition in 1998).

¹⁶¹ Grieve & Levin, *supra* note 159.

¹⁶² *See generally* Marsha Niemeijer, *Canadian Telecommunications Industry Rocked by Deregulation, Competition, Mergers, Technology*, LAB. NOTES, Aug. 2004, at 6, available at http://www.cpcs.umb.edu/labor_notes/files/30506.pdf.

¹⁶³ *See id.*

¹⁶⁴ *See* Press Release, Françoise Bertrand, Chairperson, Canadian Radio-television Telecomm. Comm’n, Green Light to Local Telephone Competition (May 1, 1997), available at <http://www.crtc.gc.ca/eng/NEWS/RELEASES/1997/r970501.htm>.

¹⁶⁵ Press Release, Canadian Radio-Television and Telecomm. Comm’n, CRTC Decides on Limited Regulation for VoIP Telephone Services to Foster Competition (May 12, 2005), available at <http://www.crtc.gc.ca/eng/NEWS/RELEASES/2005/r050512.htm>

2005, the CRTC determined that it would adopt a policy of limited regulation for VoIP.¹⁶⁶ At the same time, it imposed price floors on incumbent local exchange carriers' VoIP services.¹⁶⁷ In addition, the CRTC classified VoIP as a "local service" since it connects to local exchanges.¹⁶⁸

So far, the reaction to this decision has been mixed. Naturally, competitive providers have been eager to embrace the ruling. Shaw Communications hailed this as an opportunity to enter the VoIP market.¹⁶⁹ It noted that it would be "virtually impossible for smaller firms to enter the sector if the CRTC had not imposed price regulations on the incumbents. They clearly would be pricing in a Machiavellian way to make it economically unviable for us to get into that business."¹⁷⁰

As expected, incumbent local exchange operators have objected to the ruling. Bell Canada called the ruling "a[n] historic mistake for Canada and for our consumers."¹⁷¹ It also accused the CRTC of "retarding investment and choice," and that it "doesn't understand where technology is heading."¹⁷²

C. Applying Wiretaps, E911, and Universal Service to Canadian VoIP

Like CALEA in the United States, Canada also has wiretapping provisions. As such, the CRTC is currently investigating its applicability to VoIP.¹⁷³ If it were to implement such a requirement, it would do so in conjunction with the Canadian Department of Justice.¹⁷⁴ One would do well to pay attention for any potential developments on this critical issue.

The CRTC has also made E911 mandatory for certain VoIP providers. To that end, E911 is now mandatory for "Fixed VoIP" providers, which only allow users of their service to place a telephone call from the location where their service is being provided.¹⁷⁵ This is contrasted with Nomadic/Foreign

¹⁶⁶ See *id.*

¹⁶⁷ Edward Iacobucci, Michael Trebilcock & Ralph A. Winter, *The Canadian Experience with Deregulation*, 56 U. TORONTO L.J. 1, 11 (2006), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=704841; then follow "Social Science Research Network" hyperlink).

¹⁶⁸ *Id.* at 12.

¹⁶⁹ See *Stinging Reaction to VoIP Decision*, OTTAWA BUS. J., May 13, 2005, <http://www.ottawabusinessjournal.com/283290464307521.php>.

¹⁷⁰ *Id.*

¹⁷¹ *Id.*

¹⁷² *Id.*

¹⁷³ Stefan Dubowski, *VoIP Wiretap Laws in the Spotlight*, IT WORLD CAN., Aug. 6, 2004, <http://www.itworldcanada.com/Pages/Docbase/ViewArticle.aspx?Id=idgml-dacfe041-da65-4c73-9e0d-829e6cd0e5d2>.

¹⁷⁴ See *id.*

¹⁷⁵ *CRTC Issues 911 Ruling for VoIP Providers*, Digital Home, Apr. 4, 2005, available at <http://www.google.com> (search "Digital Home CRTC Issues 911 Ruling for VoIP Providers");

Exchange VoIP, which allows users in one exchange to receive telephone calls dialed as local calls in another exchange that they have selected.¹⁷⁶ Regardless of this classification, the CRTC required “all VoIP providers to provide customers with notification, both before service commencement and during service provision, regarding any limitations associated with their 9-1-1 services.”¹⁷⁷

Like the U.S., universal access to telephone services has played a big part in Canadian telecommunications regulation. To that end, the CRTC requires VoIP providers to fund the service.¹⁷⁸ However, Canada regards VoIP as local telephone service,¹⁷⁹ thereby avoiding the legal frictions of the ‘96 Act’s information and telecommunications service classifications. This classification is clearer and will lead to less litigation on this issue.

D. Bottoming out at the Price Floors? Complaints on Canadian Regulation

The CRTC has mandated an interesting regime for VoIP regulation. The fact that Canada has no ‘96 Act-like definitions to apply has allowed it much more regulatory leeway. This allowed the CRTC to easily regulate VoIP as a whole, rather than breaking it out into Pure and Hybrid classifications (or contend with various Acts’ definitions). This also allows the CRTC to have greater flexibility for future regulations if Pure VoIP becomes the dominant form of communication in the future. Yet, while the CRTC certainly has a more efficient regulatory scheme for VoIP than the FCC, it has not stopped critics from attacking the Commission’s policies.

Many critics have claimed that the CRTC has micromanaged VoIP.¹⁸⁰ In making this argument, they take issue with the imposition of price floors for incumbent local exchange carriers, noting, “the tighter price-floor constraints run against the general trend of relaxing regulation.”¹⁸¹ They reinforce this by claiming that the costs of entering the VoIP market are surprisingly *low*.¹⁸² These critics go onto allege that “... dozens of companies could offer VoIP services at very little up-front cost,” and that CRTC’s theory of an incumbent

then follow “Digital Home – CRTC Issues 911 Ruling for VoIP Providers” hyperlink).

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ See CRTC Establishes Rules for VoIP Services, Blake, Cassels and Graydon LLP, May 2005, *available at* http://www.blakes.com/english/legal_updates/communications/may_2005/BlakesVoIPBulletin05.pdf.

¹⁷⁹ Iacobucci, Trebilcock & Winter, *supra* note 167, at 12.

¹⁸⁰ See *id.* at 24.

¹⁸¹ *Id.*

¹⁸² See *id.* at 26.

carrier's anti-competitive price cuts are "implausible."¹⁸³ Other critics note that the CRTC's price floors are the product of unsound economics.¹⁸⁴ They also note that "[b]y constraining the ILECs to a certain VoIP offering price level, there is nothing preventing the MSOs (the other major VoIP players in terms of human and capital resources) from setting a price just below that level."¹⁸⁵

Other critics accuse the CRTC of relying on "an old and static theory that measures the number of competitors and their market shares to estimate the level of competition in an industry."¹⁸⁶ They argue, "what drives competition is freedom of entry into the industry, not regulation."¹⁸⁷ In fact, these critics go so far as to accuse the Commission of doing a "180-degree" turn from its former strategy of giving deference to the incumbents.¹⁸⁸ For them, the CRTC "grants privileges to the competitors of its former protégés."¹⁸⁹

E. A Necessary Extension: How the CRTC Must Eventually Apply its Regulations to All VoIP Providers

Each of the above criticisms is part of a larger movement against the CRTC's current method of regulating incumbents. However, these critics fail to take into account the difficulty that Canada has had with incumbent anti-competitive behavior. Canadian consumers paid a very high price due the CRTC's mismanagement of the opening up of the long distance market.¹⁹⁰

These critics also fail to recognize the leeriness that CRTC has toward potential incumbent anti-competitive behavior. What is to keep incumbents from engaging in the very same anti-competitive practices with VoIP? As Shaw Communications notes, "[w]e have a regulatory framework in place that promotes real choice and benefits for consumer. Competition is beginning to take hold and this [is] a direct result of the CRTC's framework."¹⁹¹ One could say that the fact that the incumbents are outraged

¹⁸³ *Id.*

¹⁸⁴ Technology Futurist, http://gruia.blogware.com/blog/_archives/2005/5/12/857964.html (May 12, 2005, 21:31 EDT).

¹⁸⁵ *Id.*

¹⁸⁶ *Why the CRTC Should Keep Its Hands Off VoIP*, Sept. 26, 2004, SIPthat, <http://sipthat.com/archives/000157.html>.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.*

¹⁸⁹ *Id.*

¹⁹⁰ See generally, Vincent Mosco, *Telecommunications in Canada: Technology, Industry, Policy and Labor*, National Telecommunications Conference of the Communication, Energy and Paperworkers Union, Montreal, January 26-27, 2006, (discussing the future of the telecommunications industry in Canada; specifically addressing new technology, market share of incumbent carriers, and labor unions).

¹⁹¹ *Shaw Supports CRTC on VoIP Decision*, WiTeC Alberta,

might show that these regulations are working.

However, for the CRTC to truly foster effective VoIP competition, it *must* ensure that these competitors do not benefit at the expense of incumbents. Therefore, I propose that the CRTC extend its price floor regulations to *all* VoIP providers. This need not take place immediately, as competition is still in its nascent stages, but this *must* be done eventually. If the CRTC were to not do so, the competitive providers could actually participate in the same anti-competitive behavior as the incumbents could.

In doing so, the CRTC must keep close tabs on the state of the VoIP market. Once it reaches a “competitive” level, it should then apply its incumbent provisions to all providers. How the CRTC would go about doing this would be up to the Commission. One possible way would be for it to investigate this situation once per year at most. Factors to examine could include: 1) the revenue for VoIP providers, 2) the amount of subscribers, 3) the number of competitors in each market, and 4) the expected growth in customers. This scenario could lead to an interesting situation where there is effective competition in one market, while in another there is not. The CRTC must be mindful of such a scenario should it occur and plan accordingly.

V. The U.S. and Canada: Heading in the Right Direction

Overall, both the FCC and CRTC have taken the necessary steps in order to ensure competition in their respective VoIP markets. However, both must be aware of potential pitfalls in their own unique circumstances. If these can be avoided, then VoIP will be a viable, competitive technology for many years to come.

The FCC *must* go ahead and classify Hybrid VoIP as a telecommunications service. This is the only way to ensure harmony with previous regulations (i.e. the ‘96 Act). If the FCC were to do otherwise – or worse not classify Hybrid VoIP at all – there would be a noticeable ambiguity in U.S. telecommunications regulation. Such a situation could result in a large number of anti-competitive actions by RBOC’s determined to squeeze out their smaller competitors. Classifying VoIP in this manner could serve to avoid such a scenario, as incumbents would know that their actions are being monitored *and* would act accordingly.

The CRTC, on the other hand, must make sure that their regulation of incumbent local exchange carriers does not go too far. In that, they *must* pay attention to the VoIP market to ensure that their regulations are not overly burdensome. Competition is a level playing field. Once this is achieved, there is no longer any need to have restrictions that apply to only certain providers.

http://www.witec.ca/wireless/bins/content_page.asp?cid=0-2143-5421 (last visited Mar. 20, 2008).

Therefore, these price floors need to be applied universally in order to ensure a truly competitive market.

In the end, the U.S. and Canada seem to be going in opposite directions to achieve the same goal. On one hand, there is the U.S., which wants to ensure that VoIP providers are subject to certain essential common carrier obligations (at great cost to competitors). On the other, there is Canada, which wants to ensure the viability of competition (at great cost to incumbents). Finding a harmony between the two should be the ultimate goal of both regulators. For in this harmony, there is a dynamic and viable VoIP market just waiting to be mined.