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## VoIP: A proposal for a Regulatory Scheme

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### I. INTRODUCTION

Voice-over-Internet-protocol (hereinafter VoIP) technology allows people “to make telephone calls using a broadband Internet connection instead of a regular (or analog) phone line.”<sup>2</sup> Because of its increasing popularity, there has been extensive lobbying and debate about the role of the federal government in any VoIP regulatory scheme.<sup>3</sup> However, in late 2004, the Federal Communications Commission (FCC) requested that it be given broad regulatory authority over the VoIP industry.<sup>4</sup> This decision was in response to various inquiries and lawsuits in which state governments attempted to regulate VoIP providers, as they do traditional phone services.<sup>5</sup> The FCC is particularly concerned that “letting states regulate . . . VoIP services would lead to a patchwork of conflicting rules like those which have ensnared the traditional phone business for decades.”<sup>6</sup>

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<sup>2</sup> Consumer & Governmental Affairs Bureau, *Voice Over Internet Protocol: Frequently Asked Questions*, at <http://www.fcc.gov/voip/> (last modified Aug. 26, 2005).

<sup>3</sup> See generally Associated Press, *FCC Chair to Seek Net Telephone Oversight*, available at <http://www.msnbc.msn.com/id/6287378/> (last visited Dec. 8, 2005).

<sup>4</sup> *Id.*

<sup>5</sup> See *Vonage Holdings Corp. v. Minn. Pub. Util. Comm'n*, 290 F. Supp. 2d 993-94 (D. Minn. 2003) (holding that the state could not require Plaintiff to conform to existing telecommunications law because of their standing as an “information service”).

<sup>6</sup> Associated Press, *supra* note 3.

Much of the VoIP debate has centered around existing federal law and the impact that individualized state law has had on traditional phone services. The FCC has consistently reaffirmed its belief that the Internet and Internet Service Providers (ISPs), generally, should not be subject to a regulatory scheme.<sup>7</sup> This position poses a unique problem in relation to VoIP because it is a blend of a service that traditionally has been subject to oversight (the telephone industry) with an industry that has consistently been left alone (the Internet). Thus, any VoIP regulatory scheme must balance these competing interests, preferably to benefit the consumer. One thing that is clear is that VoIP does not fall within the reach of existing federal law. As the court stated in *Vonage Holdings Corporation v. Minnesota Public Utilities Commission*, the fact that VoIP services cannot be considered telecommunications services shows “the impact of emerging technologies evolving ahead of the regulatory scheme intended to address them.”<sup>8</sup>

The regulatory scheme that is eventually introduced for VoIP will have far-reaching effects on the Internet sector in general. Too much regulation could hamper the growth of an industry that is developing into an extremely competitive marketplace. Too little regulation could continue the erosion of the traditional phone industry that has been afoot in recent years. Therefore, a comprehensive regulatory scheme that regulates based on the type of service rather than the underlying network used must be introduced. As will be discussed below, VoIP escapes regulation as a telephone service merely because of its reliance on the Internet as the basis for initiating and terminating calls. This is true even though the consumer notices little, if any, difference between placing a call using VoIP as compared to placing a call using traditional telephone services. By regulating based on the service provided rather than the underlying

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<sup>7</sup> See 47 U.S.C.A. § 230 (2004).

<sup>8</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 994.

network, the government will be able to adopt a uniform scheme that reaches different services that essentially provide the same functions to the consumer.

This note proceeds in four parts. Part II explains the technology underlying VoIP and the current national consumer statistics of VoIP. Part III discusses the regulatory framework of traditional telephone services and the pitfalls associated with this structure. Part IV analyzes existing federal law as well as recent cases on point. Part V offers generalized recommendations for a VoIP regulatory scheme.

## **II. HOW VoIP WORKS AND RECENT STATISTICS ON VoIP USE**

### *A. How it Works*

VoIP is not a new technology, but its viability as an option when considering phone services is a recent development. VoIP allows callers to make telephone calls over the Internet by converting a voice signal into a digital signal when it passes through a high-speed Internet connection modem.<sup>9</sup> VoIP can only be utilized when the consumer has a high-speed Internet connection.<sup>10</sup>

Computer-to-computer VoIP does not use the traditional public-switched telephone network (PSTN) to complete its calls, and is used by a small number of VoIP subscribers.<sup>11</sup> “These VoIP users download software from the Internet onto their computers that enables them to call others who have the same software.”<sup>12</sup> The user must have speakers, a microphone, and a sound card to use computer-to-computer VoIP.<sup>13</sup>

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<sup>9</sup> Consumer & Governmental Affairs Bureau, *supra* note 2.

<sup>10</sup> *Id.*

<sup>11</sup> This is the name for traditional telephone infrastructure. See Communication Workers of America: On the Issues, *Voice over Internet Protocol (VoIP)*, at <http://www.cwaunion.org/issues/PolicyIssues/TelecomPolicy/VOIPFactSheet.pdf> (last visited Dec. 8, 2005).

<sup>12</sup> Communication Workers of America: On the Issues, *supra* note 11.

From a functionality perspective, phone-to-phone (as well as computer-to-phone and phone-to-computer) VoIP is very similar to traditional phone services in the manner in which calls are sent and received. In fact, the major difference between the two does not affect the manner in which the phone call functions at all, at least from the consumer's perspective.<sup>14</sup> The difference lies in *where* calls are actually originated and terminated.<sup>15</sup> Traditional telephone calls originate on circuit-switches, while VoIP calls originate over the Internet.<sup>16</sup> Many VoIP providers are considered to be providers of "Last Mile VoIP" in that they provide a connection to and from the traditional PSTN.<sup>17</sup> The VoIP user simply picks up a phone that is connected to his or her high-speed Internet connection, listens for a dial-tone, and dials the phone number.<sup>18</sup> When one caller is using VoIP and the other is using a traditional phone, both the Internet and the traditional PSTN are used.<sup>19</sup> The call then proceeds through an adaptor that is connected to the user's high-speed Internet connection.<sup>20</sup> The call is routed through the PSTN to the VoIP provider before being sent over the Internet to the recipient's local telephone company.<sup>21</sup> However, companies such as Vonage Corporation offer users the ability to place and receive

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<sup>13</sup> See Consumer & Governmental Affairs Bureau, *supra* note 2.

<sup>14</sup> Max Smetannikov, *Large ISPs Missing From VoIP Race*, ISP-PLANET (Sept. 24, 2004), at [http://www.isp-planet.com/business/2004/voip\\_race.html](http://www.isp-planet.com/business/2004/voip_race.html) (last visited Mar. 27, 2005).

<sup>15</sup> *See Id.*

<sup>16</sup> *See Id.*

<sup>17</sup> *See Id.*

<sup>18</sup> Consumer & Governmental Affairs Bureau, *supra* note 2.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

phone calls just as they normally would without ever utilizing the PSTN.<sup>22</sup> When the caller and recipient both subscribe to a Vonage service, their conversation travels exclusively over the Internet.<sup>23</sup> Also important to note is that most VoIP services, including Vonage, do not require their users to use the service from the same broadband connection each time a call is made.<sup>24</sup> Rather, users can travel with their calling equipment and place calls at any location where they can obtain a broadband connection.<sup>25</sup>

A more detailed description reveals the inherent differences in making a VoIP call and making a traditional telephone call.<sup>26</sup> Traditional phones use circuit-switched networks to handle calls. These circuit-switched networks establish a direct path between the caller and recipient.<sup>27</sup> Typically, the resources needed to establish this direct path must be reserved for the duration of the call, regardless of whether all of these resources are necessary for the call.<sup>28</sup> However, VoIP, using IP networks, “route[s] traffic without requiring the establishment of an end-to-end path.”<sup>29</sup> This allows data to be segmented into packets, with each packet being

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<sup>22</sup> In the Matter of IP-Enabled Services, 19 F.C.C.R. 4863, 4876 (Feb. 12, 2004).

<sup>23</sup> *Id.*

<sup>24</sup> 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. 22404, 22406 (Nov. 12, 2004).

<sup>25</sup> *Id.*

<sup>26</sup> Saying that these descriptions are “detailed” is somewhat inappropriate simply because the technology that underlies VoIP and networking generally is extremely complex. However, because these descriptions are merely used to illustrate the differences between VoIP and traditional phone services, they are appropriate given the circumstances. Therefore, for a complete description of VoIP and its underlying hardware and functionality, *see Cisco Systems: IP Telephony/Voice Over IP (VoIP) at* [http://www.cisco.com/en/US/tech/tk652/tk701/tsd\\_technology\\_support\\_protocol\\_home.html](http://www.cisco.com/en/US/tech/tk652/tk701/tsd_technology_support_protocol_home.html) (last visited March 15, 2006).

<sup>27</sup> *See, IP-Enabled Services*, 19 F.C.C.R. at 4869.

<sup>28</sup> *Id.*

<sup>29</sup> *See supra* note 22 at 4869.

transmitted on the best path to the recipient.<sup>30</sup> This means that a truly direct path between the caller and recipient is never established.<sup>31</sup> IP networks, unlike circuit-switched networks, are used to send a wide variety of data over the Internet, including voice transmissions.<sup>32</sup> This type of call using IP networks makes up a portion of at least every phone call placed or received by a VoIP subscriber.<sup>33</sup>

#### B. *VoIP Statistics*

In recent years, VoIP use has become more widespread because many providers offer the service at a fixed rate or for free.<sup>34</sup> For example, instead of paying a per minute charge for long distance calls, many VoIP providers provide a flat rate that includes both local- and long-distance calling.<sup>35</sup>

Broadband companies typically offer the service for around \$20, while large cable companies charge as much as \$50.<sup>36</sup> For example, Time Warner Cable offers packages starting at just under \$40 for its VoIP phone service out of their Central New York office.<sup>37</sup> This base service offers the consumer a plethora of features, including caller identification, call waiting,

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<sup>30</sup> See *supra* note 22 at 4870.

<sup>31</sup> *Id.*

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> Computer-to-computer VoIP that requires the use of hardware such as headphones and a microphone are usually offered for free. See generally, FreeWorld Dialup, *Welcome to FWD*, at <http://www.pulver.com/fwd/> (discussing FWD, a free VoIP service) (last visited Mar. 27, 2005).

<sup>35</sup> Smetannikov, *supra* note 14.

<sup>36</sup> *Id.*

<sup>37</sup> Time Warner Cable, *Digital Phone from Time Warner Cable*, at <http://www.timewarnercable.com/centralny/products/digitalphones/default.html> (last visited Mar. 27, 2005).

and unlimited local- and long-distance calling.<sup>38</sup> On the other hand, Vonage, a company that focuses entirely on broadband telephony, charges about \$25 for a similar plan.<sup>39</sup> These flat-rate plans offer consumers who frequently use long-distance services the potential for an enormous amount of savings.<sup>40</sup>

Primarily because of these offers, the projected number of VoIP subscribers has jumped from 131,000 at the end of 2003, to an estimated one million at the end of 2004, and to approximately 16 million in 2005.<sup>41</sup> A specific example of this dramatic increase can be seen with the results that CableVision, a large cable company, experienced in 2004.<sup>42</sup> Between March and June 2004, CableVision reported a gain of more than 44,000 subscribers to their VoIP service, a number which represents approximately 38% of their total subscribers.<sup>43</sup> In 2006, CableVision hopes to increase their number of VoIP subscribers to approximately one million.

### III. REGULATION OF TELECOMMUNICATION SERVICES

The regulation of telecommunications services has been marked by a myriad of different rules and regulations and even conflicting state and federal laws. It is instructive when discussing a possible VoIP regulatory scheme to see what went wrong with the regulation of telecommunications services and what prompted former FCC Chairman Michael Powell to say

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<sup>38</sup> Time Warner Cable, *Digital Phone from Time Warner Cable*, *supra* note 37.

<sup>39</sup> Vonage, *Products and Services*, at <http://www.vonage.com/products.php> (last visited Mar. 27, 2005). For a more detailed description of Vonage's services, see *infra* section IV (C).

<sup>40</sup> For a list of the rankings of VoIP providers for late 2004. See Alex Goldman, *U.S. VoIP Ranking by Subscriber: Q2 2004*, ISP-PLANET (Oct. 18, 2004), at [http://www.isp-planet.com/research/rankings/2004/voip\\_q22004.html](http://www.isp-planet.com/research/rankings/2004/voip_q22004.html) (last visited Mar. 27, 2005).

<sup>41</sup> Associated Press, *supra* note 3; John Tilak, *Global VoIP Subscribers to Top 55m in 2009*, at <http://www.dmeurope.com/default.asp?ArticleID=13160> (last visited Mar. 15, 2006).

<sup>42</sup> CableVision has plans starting from \$34.95 for their VoIP service called Optimum Voice. See Optimum Voice, at <http://www.optimumvoice.com> (last visited Mar. 27, 2005).

<sup>43</sup> See Goldman, *supra* note 40.

that “letting states regulate [along with the federal government]... is to dumb down the Internet back to the limited vision of government officials. That would be a tragedy.”<sup>44</sup> For the purposes of this description, Minnesota will be used as a guide simply because of its involvement in a case involving VoIP.

There are two types of telecommunications services when discussing regulation: those that are subject to federal regulation and those that are subject to state regulation.<sup>45</sup> The FCC is responsible for regulating two areas of the industry: interstate services and “interLATA” long-distance services.<sup>46</sup> After AT&T was broken into Regional Bell Operating Companies (RBOCs), competition was promoted for long-distance services by the creation of “LATAs,” which are simply areas within states.<sup>47</sup> Thus, calls made between LATAs are considered interLATA long-distance calls.<sup>48</sup>

States are responsible for regulating local long-distance services and local telephone services.<sup>49</sup> Long-distance calls that are made within a LATA are considered local long-distance calls.<sup>50</sup>

In order to foster competition, RBOCs must prove that they have opened their local telephone markets to competition before being granted the opportunity to provide interstate or

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<sup>44</sup> See Associated Press, *supra* note 3.

<sup>45</sup> The Minnesota House of Representatives, *Telecommunications Regulation in Minnesota*, at <http://www.house.leg.state.mn.us/hrd/issinfo/sstelcreg.htm> (last visited Mar. 15, 2006).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *Id.* (In Minnesota this means that these providers are subject to the jurisdiction of the Minnesota Public Utilities Commission.)

<sup>50</sup> See *Id.*



interLATA long-distance calling services.<sup>51</sup> The FCC and federal courts are given the responsibility of determining whether an RBOC has complied with this rule.<sup>52</sup> There have also been developments that provide for greater competition in the local telephone calling market.<sup>53</sup>

Minnesota classifies telecommunications providers as either a telecommunications carrier or a telephone company.<sup>54</sup> Any local company that provided local telephone service prior to Minnesota opening up the market for competition is considered a telephone company.<sup>55</sup> Larger companies are subject to greater oversight by the Minnesota Public Utilities Commission (MPUC) while smaller companies are generally subjected to much less oversight.<sup>56</sup> Generally, the MPUC cannot regulate the prices charged by small companies unless a small company is charging unreasonable rates.<sup>57</sup> On the other hand, larger companies in Minnesota are subjected to virtually de facto price regulation.<sup>58</sup>

In Minnesota, telecommunications carriers are “long distance providers who do not provide local service” or “competitive local exchange” carriers that provide local telephone service that competes with the companies that were established prior to competition being opened in the state.<sup>59</sup> Telecommunications carriers are subject to some regulatory oversight by

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<sup>51</sup> See The Minnesota House of Representatives, *supra* note 45.

<sup>52</sup> *Id.*

<sup>53</sup> See *Id.* (“The federal Telecommunications Act of 1996 required states to allow entities other than incumbent local telephone companies to compete to provide local telephone services to customers. Minnesota moved more quickly than the U.S. Congress, adopting a similar statute in the 1995 legislative session.” *Id.*)

<sup>54</sup> *Id.*

<sup>55</sup> The Minnesota House of Representatives, *supra* note 12.

<sup>56</sup> *Id.*

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> *Id.*

the MPUC, but their rates are unregulated.<sup>60</sup> This is an example of the shifting focus led by the federal government and the FCC, from a telecommunications industry that is ruled by monopolies, to a telecommunications industry based on competition and greater choices for the consumer.<sup>61</sup>

Generally, the telephone regulatory scheme has become “unwieldy, unmanageable, inefficient, and dysfunctional.”<sup>62</sup> In 1996, there was a shift from a regulatory scheme that encouraged and supported monopolies, to a scheme that encouraged and supported competition.<sup>63</sup> The primary reason that the regulatory scheme that governs the telephone industry could be separated between federal and state governments was because there was an identifiable manner in which to separate it (interstate long-distance calls). However, VoIP presents an interesting and complex problem; there is no way to determine which traffic is interstate and which traffic is intrastate.<sup>64</sup> The solution to this problem is not easily identifiable, but one fact is clear, allowing VoIP regulation to mimic traditional telephone regulation will ultimately stifle a market that thrives on competition and innovation.<sup>65</sup>

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<sup>60</sup> The Minnesota House of Representatives, *supra* note 45.

<sup>61</sup> Joseph Farrell, Creating Local Competition, Address Before an Open Audience at the Federal Communications Commission (May 15, 1996), *in* 49 FED. COMM. L.J. 201, 202 November, 1996.

<sup>62</sup> *Id.*

<sup>63</sup> *Id.*

<sup>64</sup> This is because, unlike traditional phone services, an end-to-end path between VoIP users is never established. Therefore, it is almost impossible to pinpoint where the calls are originating and terminating. For a more detailed description, see *infra* section II (A).

<sup>65</sup> Many BMOs are fighting for a comprehensive regulatory scheme, perhaps in response to their declining customer base because of VoIP. See Alex Goldman, *VoIP Battleground in RBOC Monopoly War*, at [http://www.isp-planet.com/politics/2004/voip\\_war.html](http://www.isp-planet.com/politics/2004/voip_war.html) (Sept. 17, 2005).

#### IV. APPLICABILITY OF CURRENT LAW TO VoIP SERVICES

Following is a discussion first of current federal statutory law and recent FCC decisions. Then a case is examined that attempted to apply existing federal law and FCC decisions to VoIP services. Finally, a recent case is presented that highlights the need for a comprehensive VoIP regulatory scheme.

##### A. *The Communications Act of 1934*

The definitions employed in *The Communications Act of 1934* as amended by *The Communications Act of 1996* offer a starting point for any discussion of its applicability to VoIP services.<sup>66</sup> In fact, much of the debate concerning this topic has centered on whether VoIP should be classified as a “telecommunications service” or an “information service.”<sup>67</sup> First, “‘telecommunications’ means 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.”<sup>68</sup>

Section 153(46) defines “telecommunications service” as “the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.”<sup>69</sup>

Section 153(20) defines “information service” as:

the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for

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<sup>66</sup> 47 U.S.C. § § 151-615 (2004) (as amended by Communications Act of 1996, Pub. L. No. 104-104).

<sup>67</sup> 47 U.S.C. § 153(20) (2004) (defining “information service”).

<sup>68</sup> 47 U.S.C. § 153(43) (2004).

<sup>69</sup> 47 U.S.C. § 153(43) (2004); 47 U.S.C. § 153(46).

the management, control, or operation of a telecommunications system or the management of a telecommunications service.<sup>70</sup>

The definition a carrier is classified as determines whether its service is subject to both federal and state regulation. Traditionally, telecommunications carriers that provide “basic services” as defined by the FCC are within the purview of their regulatory scheme, while carriers that provided “enhanced services” are not.<sup>71</sup> This dichotomy between “enhanced” and “basic” services begins to illuminate the problem with trying to apply current federal law to the regulation of VoIP services. Are VoIP services considered telecommunications or information services? Basic or enhanced? This problem only becomes more clouded after considering that Congress, the FCC, and federal courts have consistently reaffirmed the proposition that the Internet shall not be subject to regulation.<sup>72</sup> Thus, regardless of the classification of VoIP services, any implementation of a regulatory scheme will require the government to change its consistent opposition to the regulation of Internet services.

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<sup>70</sup> 47 U.S.C. § 153(20).

<sup>71</sup> “A basic transmission service is one that is limited to the common carrier offering of transmission capacity for the movement of information. In offering this capacity, a communications path is provided for the analog or digital transmission of voice, data, video, etc. information.” In the Matter of Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry, Part 1 of 2), 77 F.C.C.2d 384, 419 (April 7, 1980).

“An enhanced service is any offering over the telecommunications network which is more than a basic transmission service. In an enhanced service, for example, computer processing applications are used to act on the content, code, protocol, and other aspects of the subscriber’s information.” 77 F.C.C.2d 384, 420.

77 F.C.C.2d 384, 387 (stating that the regulation of “basic services” is required by Title II of *The Communications Act of 1934*, while the “regulation of enhanced services is not required in furtherance of some overall statutory objective”).

<sup>72</sup> See 47 U.S.C. § 230(b)(2) (2004). (“It is the policy of the United States...to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services, unfettered by Federal or State regulation.”) See also *Zeran v. America Online, Inc.*, 129 F.3d 327, 330 (4th Cir. 1997) (recognizing that “Congress acted to keep government regulation of the Internet to a minimum...”).

B. *The FCC*

The FCC is the principal means for regulating the communications industry and enforcing the *Communications Act of 1934*.<sup>73</sup> However, its authority is limited to those activities which can be classified as interstate commerce.<sup>74</sup> Therefore, whether VoIP services can be considered interstate activities is an important, and potentially determinative, question.

According to a recent decision, the FCC believes that VoIP is indeed an interstate activity and therefore subject to federal regulation.<sup>75</sup> This means that the FCC will exercise its ability to regulate the industry and therefore preempt the states from being able to regulate VoIP.<sup>76</sup> The FCC's decision was premised on the fact that the characteristics of VoIP services "preclude any practical identification of, and separation into, interstate and intrastate communications for purposes of effectuating a dual federal/state regulatory scheme . . . ."<sup>77</sup> This determination by the FCC that VoIP services are interstate and, therefore, within its jurisdiction, will surely be challenged in the future, especially if the FCC takes regulatory steps that are unpopular in the eyes of VoIP providers or traditional phone companies.

Outside of this important decision there have been a number of others that have begun to shape (and in some cases cloud) the future of VoIP regulation. Specifically, *In the Matter of Federal-State Joint Board on Universal Service* began to draw connections between the language employed by Congress when drafting the *Communications Act of 1934*, and the language used by

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<sup>73</sup> See 47 U.S.C. § 151 (2004). ("[FCC] created . . . [f]or the purpose of regulating interstate and foreign commerce in communication by wire and radio..." *Id.*)

<sup>74</sup> 47 U.S.C. § 151.

<sup>75</sup> *Vonage Holdings Corporation Petition for Declaratory Ruling*, *supra* note 24. See also *Associated Press*, *supra* note 3.

<sup>76</sup> *Vonage Holdings Corporation Petition for Declaratory Ruling*, *supra* note 24.

<sup>77</sup> *Id.* at 22411.

the FCC in defining “enhanced service” and “basic service.”<sup>78</sup> In this decision, the FCC stated for the first time that the definitions of “enhanced service” and “basic service” should be construed as parallel to the definitions of “information service” and “telecommunications service,” respectively.<sup>79</sup> The implication of this decision is clear; information services, like enhanced services, are outside the scope of FCC regulation. This is true despite the fact that most information services are, in fact, *users* of telecommunications services.<sup>80</sup> Their activities can be distinguished from telecommunications services because the information services are not *providing* telecommunications services to consumers.<sup>81</sup> Still left undetermined by the FCC is the classification to which VoIP services belong. In fact, in its most recent decision involving VoIP, the FCC specifically refused to rule on whether VoIP services are “information services.”<sup>82</sup>

Although the FCC continues to avoid classifying VoIP services, it has taken steps to begin the classification process. Determining how a service should be classified depends on “the functional nature of the end-user offering.”<sup>83</sup> This means that in order to classify a VoIP provider as a telecommunications service, the provider must offer “pure telecommunications”<sup>84</sup> to their subscribers.<sup>85</sup> Applying this test, the FCC identified three classes of VoIP providers. First, VoIP providers that only offer customer premises equipment (CPE) such as hardware and

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<sup>78</sup> In the Matter of Federal-State Joint Board on Universal Service, 13 F.C.C.R. 11501 (Apr. 10, 1998).

<sup>79</sup> See *State Joint Board on Universal Service*, supra note 78.

<sup>80</sup> *Id.* at 11535.

<sup>81</sup> *Id.*

<sup>82</sup> See *Vonage*, supra note 39.

<sup>83</sup> *State Joint Board on Universal Service*, supra note 78 at 11543.

<sup>84</sup> *Id.* (“[T]elecommunications’ is defined as a form of ‘transmission.’”)

<sup>85</sup> *Id.*

software to their subscribers, but do not offer any transmission of information, are not telecommunications services.<sup>86</sup> Second, the FCC stated that Internet Service Providers (ISPs) do “not appear to be ‘provid[ing]’ telecommunications to its subscribers” because very often they have no idea that such communication is being conducted across their networks.<sup>87</sup>

Finally, the FCC stated that phone-to-phone VoIP *appears* to have the characteristics generally associated with telecommunications services and not information services.<sup>88</sup> This is primarily true because “users . . . obtain only voice transmission . . . [and not the] capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information.”<sup>89</sup> The provider makes a gateway available that effectively creates a direct connection between the callers.<sup>90</sup> Thus, providers are classified as phone-to-phone VoIP if the following four requirements are met:

- (1) it holds itself out as providing voice telephony or facsimile transmission service;
- (2) it does not require the customer to use CPE different from that CPE necessary to place an ordinary touch-tone call (or facsimile transmission) over the public switched telephone network;
- (3) it allows the customer to call telephone numbers assigned in accordance with the North American Numbering Plan, and associated international agreements; and
- (4) it transmits customer information without net change in form or content.<sup>91</sup>

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<sup>86</sup> *State Joint Board on Universal Service*, supra note 78 at 11543.

<sup>87</sup> *Id.*

<sup>88</sup> *Id.* at 11544.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> *Id.* at 11543-44.

However, despite this initial recommendation, subsequent decisions by the FCC have continued to avoid making a determinative ruling about the classification of phone-to-phone VoIP.<sup>92</sup>

In the decision *Matter of Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, the FCC stated that the VoIP capabilities that Free World Dialup (FWD) provide are an information service and therefore outside the scope of FCC regulation.<sup>93</sup> In doing so, the FCC was reaffirming its position stated in *Matter of Federal-State Joint Board on Universal Service* with respect to companies that only provide CPE to their consumers. First, it was determined that FWD did not fall under the definition of telecommunications because “Pulver neither offers nor provides transmission to its members.”<sup>94</sup> Instead, FWD only offers users the “opportunity” to join other users in talking over the Internet.<sup>95</sup>

The FCC also determined that FWD is not a telecommunications service.<sup>96</sup> This determination resulted from the previous finding that FWD was not telecommunications.<sup>97</sup> In addition, because FWD is free to use, it could not have been a telecommunications service because an inherent requirement to be such a service is that “the service provider must assess a fee.”<sup>98</sup>

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<sup>92</sup> See generally *In the Matter of Petition for Declaratory Ruling that pulver.com's Free World Dialup is Neither Telecommunications Nor a Telecommunications Service*, 19 F.C.C.R. 3307 (Feb. 12, 2004).

<sup>93</sup> *Id.* at 3307.

<sup>94</sup> *Id.* at 3312.

<sup>95</sup> *Id.* at 3309.

<sup>96</sup> *Id.* at 3312.

<sup>97</sup> *Id.*

<sup>98</sup> *Id.* at 3312-13.



Finally, against FWD objections, it was determined that the service is in fact an information service because it “offers ‘a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications.’”<sup>99</sup> In short, FWD offers its users “computing capabilities.”<sup>100</sup> The FCC made certain to acknowledge the fact that after they provide the members with the computing capabilities, they “no longer [play] a role in the exchange of information between its members.”<sup>101</sup> “[I]t is the members' end-user devices, not [FWD], that establish the actual connections and manage the calls.”<sup>102</sup>

Up to this point the FCC has left some critical questions unanswered that will have a significant impact on the VoIP industry. Specifically, where will VoIP be classified? And if it does not fit comfortably into an existing classification, then how will the new regulatory structure function while incorporating new terms and classifications? Although the future of VoIP regulation is undetermined, at least one case has attempted to fit VoIP providers into one of the preexisting FCC definitions.

C. *Vonage Holdings Corporation v. Minnesota Public Utilities Commission*<sup>103</sup>

This case is one of the first, of what surely will be many, federal cases to determine whether a VoIP provider should be subject to state regulatory provisions that govern the telecommunications industry. MPUC issued an order stating that Vonage was required to

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<sup>99</sup> for Declaratory Ruling that pulver.com's . . . , *supra* note 92, at 3313.

<sup>100</sup> *Id.*

<sup>101</sup> *Id.* at 3314.

<sup>102</sup> *Id.* at 3310.

<sup>103</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d 993.

comply with state regulations regarding the offering of telephone services.<sup>104</sup> Vonage made a motion in Federal District Court to have a preliminary injunction ordered to prevent the MPUC from forcing it to comply with the Minnesota regulatory framework.<sup>105</sup> For the reasons that follow, the court granted Vonage’s motion for an injunction.<sup>106</sup>

Vonage argued that its services were not “telecommunications services,” but rather “information services” and, therefore, not subject to regulation by the MPUC or any other government body.<sup>107</sup> Vonage supported its position by detailing exactly what its service provides to subscribers.<sup>108</sup> An important characteristic of its VoIP service, DigitalVoice, is that subscribers are required to have an existing high-speed Internet connection because Vonage is *not* an ISP.<sup>109</sup> Vonage provides special CPE to each of its subscribers, which connects to subscribers’ high-speed Internet connection, to enable voice communication over the Internet.<sup>110</sup> A Vonage computer is used to transform the IP voice data from each of the users into a format compatible with the traditional PSTN when phone-to-computer and computer-to-phone calls are made.<sup>111</sup>

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<sup>104</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 996.

<sup>105</sup> *Id.* at 994. *See also* Minn. Stat. § 237.16 (2004) (general provision governing telephone companies in Minnesota).

<sup>106</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 993.

<sup>107</sup> *Id.* at 997.

<sup>108</sup> *Id.* at 995.

<sup>109</sup> *Id.*

<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

In order to facilitate communication between its subscribers, “Vonage obtains ten-digit telephone numbers from telephone companies” that it distributes to its customers.<sup>112</sup> Other Vonage subscribers and those individuals using a traditional phone service and the PSTN can call that number to reach Vonage subscribers.<sup>113</sup> While traditional PSTN phone numbers are associated with an exact location, a Vonage phone number is associated only with the subscriber’s computer.<sup>114</sup> Therefore, a Vonage subscriber can place and receive calls using the service from any location, as long as they have a high-speed Internet connection.<sup>115</sup> Thus, “Vonage is not capable of determining the geographic location from which its customers access its service.”<sup>116</sup>

In resolving the motion, the court looked to FCC decisions on the subject as a means of beginning to accurately classify the services that Vonage offered.<sup>117</sup> The court first noted “that the backbone of Vonage’s service is the Internet,” which Congress has unquestionably stated should be left unregulated.<sup>118</sup> Then, the court adopted the FCC determination that “Congress intended the categories of 'telecommunications service' and 'information service' to parallel the definitions of 'basic service' and 'enhanced service.’”<sup>119</sup>

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<sup>112</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 995.

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

<sup>115</sup> *Id.*

<sup>116</sup> *Id.*

<sup>117</sup> *Id.* at 997.

<sup>118</sup> *Id.*

<sup>119</sup> *Id.* at 998 n.7.

The court then discussed the FCC's four requirements that must be met in order for a VoIP service to be considered a phone-to-phone VoIP service.<sup>120</sup> The court determined that Vonage did not provide phone-to-phone VoIP service.<sup>121</sup> Specifically, Vonage's services fail to meet the second and fourth requirements established by the FCC.<sup>122</sup> The second requirement states that the service must not "require the customer to use CPE different from that CPE necessary to place an ordinary touch-tone call over the [PSTN]."<sup>123</sup> Here, Vonage requires users to have different CPE for the translation of their voice data, than what is necessary for a person to make a traditional call over the PSTN.<sup>124</sup> Furthermore, the fourth requirement states that the service must "[transmit] customer information without net change in form or content."<sup>125</sup> A net change occurs when Vonage subscribers place a phone call to a customer using a traditional phone service and PSTN.<sup>126</sup> The voice transmission from a Vonage subscriber must be converted from the format used when it passes over the Internet, IP, to the format necessary to communicate effectively with the PSTN.<sup>127</sup>

In relation to computer-to-computer VoIP, the court stated that "Vonage's service effectively carves out a role in the communications scheme that distinguishes it from

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<sup>120</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 1000. For a list of the four requirements *see infra* part IV(B).

<sup>121</sup> *Id.*

<sup>122</sup> *Id.*

<sup>123</sup> *Federal-State Joint Board on Universal Service*, *supra* note 78 at 1543-44.

<sup>124</sup> *Vonage*, 290 F. Supp. 2d at 1000.

<sup>125</sup> *Federal-State Joint Board on Universal Service*, *supra* note 78 at 11544.

<sup>126</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 1000.

<sup>127</sup> *Id.*

telecommunications services.”<sup>128</sup> This occurs because of the change in form that the voice data makes as it passes over the Internet, and only the Internet.<sup>129</sup> The data never comes in contact with the PSTN.<sup>130</sup>

The major argument advanced by the MPUC was the “simplistic quacks like a duck argument, essentially holding that because Vonage's customers make phone calls, Vonage's services must be telecommunications services.”<sup>131</sup> But, congressional intent on the subject of the regulation of information services is clear; information services should not be regulated simply because they provide services that use telecommunications.<sup>132</sup> Nor should they be regulated because they provide enhanced features that are built on top of telecommunications services.<sup>133</sup> Consequently, the court determined that Vonage was, indeed, an information service based on the clear expression of Congress and the FCC on the definition and capability of such services.<sup>134</sup> Although the court sided with Vonage, it was sympathetic to the MPUC’s argument because Vonage subscribers are basically making phone calls.<sup>135</sup>

This case illustrates the difficulties that arise when current federal law and FCC policies are attempted to be applied to VoIP services. The definitions of telecommunications and telecommunications service act as a barrier preventing VoIP from being classified as either. This

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<sup>128</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 1000.

<sup>129</sup> *Id.*

<sup>130</sup> *Id.*

<sup>131</sup> *Id.* at 1001.

<sup>132</sup> *Id.* at 1003 (quoting *In Federal-State Joint Board on Universal Service*, *supra* note 77 at 11546).

<sup>133</sup> *Id.*

<sup>134</sup> *Id.*

<sup>135</sup> *Id.* at 1001.

shows “the impact of emerging technologies evolving ahead of the regulatory scheme intended to address them.”<sup>136</sup> Therefore, a regulatory scheme must embrace the inherent differences between traditional phone services and VoIP, while focusing on the relative sameness of the services provided from the consumer perspective.

#### *D. Texas v. Vonage Holdings Corp. and other Recent Developments*

VoIP providers are facing new challenges to maintain their viability and position in the marketplace. With increasing subscribers and widespread use, there have been a variety of consumer complaints regarding their respective VoIP services. The most pressing issue that has generated the most publicity is the connectivity of VoIP to local emergency 911 services. These complaints and resulting lawsuits underscore the need for a comprehensive VoIP regulatory scheme that will assist in protecting consumers.

In late March 2005, the state of Texas filed a lawsuit against Vonage Holding Corporation.<sup>137</sup> The lawsuit alleged that Vonage misrepresented the type of emergency telephone services that it offers.<sup>138</sup> Texas maintained that the misrepresentation included “the fact that the 911 dialing feature is not automatically included when a customer signs up for telephone service.”<sup>139</sup> The lawsuit requested injunctive relief under the Texas Deceptive Trade Practices Act.<sup>140</sup>

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<sup>136</sup> *Vonage Holdings Corp.*, 290 F. Supp. 2d at 994.

<sup>137</sup> Plaintiff’s Original Petition, *Texas v. Vonage Holdings Corp.*, (200th Tex. Dist. 2005) (No. GV500657), <http://www.oag.state.tx.us/newspubs/releases/2005/032205vonagepop.pdf> (last visited Mar. 27, 2005).

<sup>138</sup> Press release, Attorney General of Texas, Texas Attorney General Abbott Takes Legal Action to Protect Internet Phone Customers (Mar. 22, 2005), *available at* <http://www.oag.state.tx.us/oagnews/release.php?id=850> (last visited Mar. 27, 2005).

<sup>139</sup> *Id.*

<sup>140</sup> *Id.* See also TEX. BUS. & COM. CODE § 17.46 (2004).

The case primarily arose because of an incident involving a family in Houston, Texas.<sup>141</sup> During a home invasion involving a family that subscribed to a Vonage VoIP service, two family members were shot multiple times while the victims' daughter repeatedly and unsuccessfully tried to call 911.<sup>142</sup> The family was unaware that in order to receive connection to a local 911 service they would have to sign up for the service, which they did not do.<sup>143</sup>

At that time, VoIP providers were not required to provide connection to emergency 911 services.<sup>144</sup> However, many companies, including Vonage, provided subscribers with connectivity to the emergency service.<sup>145</sup> The complaint first alleged that Vonage misrepresented the functionality and availability of their 911 service.<sup>146</sup> In so doing, subscribers allegedly are led to believe that the functionality of this service will be identical to using the service with a traditional connection.<sup>147</sup> In fact, the functionality is much different with calls being routed through a number of unreliable channels before reaching the emergency personnel.<sup>148</sup>

Second, the complaint alleged that Vonage misrepresented the availability of the 911 service.<sup>149</sup> Specifically, connection to the service is not automatic; the subscriber literally must

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<sup>141</sup> Press release, *supra* note 138.

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> *Texas, supra* note 137.

<sup>147</sup> *Id.* at 7.

<sup>148</sup> *Id.*

<sup>149</sup> *Id.*

sign-up separately in order to receive 911 connectivity.<sup>150</sup> The state believed that Vonage did not adequately notify subscribers that they must sign-up for the emergency service.<sup>151</sup> Rather, subscribers must actively research whether 911 connectivity is included within their plan.<sup>152</sup>

Next, the complaint alleged that Vonage did not adequately notify subscribers that the availability of the 911 service was contingent on several factors, including the availability of power when the call is made.<sup>153</sup> Generally, the availability of power when making an emergency call is not an issue with traditional telephone services because traditional services have back-up power sources in the event of an outage.<sup>154</sup> Vonage does not have a back-up power source to ensure that its subscribers can make and receive phone calls during a power outage.<sup>155</sup> Thus, when Vonage subscribers lose power, they also lose the ability to place phone calls, even in the event of an emergency.<sup>156</sup> This case illustrates the need for a regulatory scheme that focuses on protecting VoIP subscribers. Absent regulation, VoIP providers will continue to put their consumers at risk.

In response to this case and others with eerily similar fact patterns, the FCC exercised its regulatory authority over the VoIP industry for the first time. On May 19, 2005, the FCC issued an order requiring VoIP providers to connect their customers to emergency 911 services.<sup>157</sup> The

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<sup>150</sup> *Texas*, *supra* note 137 at 7.

<sup>151</sup> *Id.* at 9.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.* at 8.

<sup>154</sup> *Id.*

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

<sup>157</sup> Commission Requires Interconnected VoIP Providers to Provide Enhanced 911 Service; Order Ensures VoIP Customers Have Access to Emergency Services, 2005 FCC Lexis 2801 (May 19, 2005).



order gave VoIP providers 120 days from the effective date of the order to comply with the requirement.<sup>158</sup> The FCC stated that connection to 911 services should be a standard feature of VoIP packages rather than an optional one.<sup>159</sup> In addition, the FCC imposed an Aug. 29, 2005 deadline on VoIP providers to provide notice to their customers of the many problems that could be experienced in relation to emergency 911 services.<sup>160</sup> In its order, the FCC was careful not to suggest the means by which VoIP providers should comply with the 911 requirement.<sup>161</sup> FCC Chairman Kevin J. Martin stated that the Commission was attempting to avoid “undue regulation on these services” by allowing them to decide the proper means to comply with the requirements.<sup>162</sup> Although this was an important first step toward a comprehensive regulatory scheme, there are still a variety of security issues that remain. The FCC must become proactive in its regulation in order to provide VoIP subscribers with adequate safeguards.

## **V. RECOMMENDATIONS FOR A VoIP REGULATORY SCHEME**

Existing federal law is incapable of being applied to the VoIP industry. A more simplified body of law will not only allow for similar services to be regulated in the same manner, but will also allow for competition to continue thriving in this industry.<sup>163</sup> A regulatory

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<sup>158</sup> Commission Requires, *supra* note 157. (The 120-day requirement means that providers would be required to comply with this order by late November 2005).

<sup>159</sup> *Id.* at 8.

<sup>160</sup> *Id.* at 5.

<sup>161</sup> *Id.* at 6.

<sup>162</sup> *Id.*

<sup>163</sup> See generally Alex Goldman, *Simplifying Telecom Law* (July 9, 2004), at [http://www.isp-planet.com/politics/2004/layers\\_law.html](http://www.isp-planet.com/politics/2004/layers_law.html) (last visited Mar. 27, 2005) (discussing how a simplified regulatory scheme based on the layer model would allow for competition to remain fierce).

scheme that fosters a competitive marketplace is essential. This will assist in the elimination of many of the ongoing problems that have plagued the traditional telephone industry.

Regulation must encompass all forms of VoIP. If a VoIP service offers a product that, from the consumer perspective, is identical in form and function to traditional phone services, then it must be regulated as if it were a traditional phone service. However, this approach will require the FCC to reevaluate its policy of leaving information services unregulated simply because many VoIP services offer functionality greater than just basic telephone service. Although this will likely eliminate the ability of some VoIP services to be provided for free, it will ensure a uniform treatment of similar services. While this does impair consumers' ability to choose an appropriate service, the benefits of blanket regulation will enhance the quality and number of advantages that are provided.

The basis of any scheme must focus on the service provided and not the underlying network. The FCC and the federal government must reevaluate their definitions of basic and enhanced services in order to accomplish this objective. A definitional basis that focuses on the service provided from the consumer perspective is essential. Again, regulation of similar services must be the goal. This will create a pure marketplace existing between traditional telephone services and VoIP.

A comprehensive tax and tariff structure must be developed. If consumers continue to leave behind traditional phone services for VoIP services, both federal and state governments will see a corollary drop in revenue generated. However, a tax structure that inevitably leads to a diminishing of the highly competitive market for VoIP services must be avoided. Millions of people are ridding themselves of traditional phone services for the simple reason that VoIP is a cheaper alternative. This incentive could easily be stifled by too much regulation. The FCC has

already alluded to the fact that states will have some involvement in an FCC-led regulatory scheme. However, allowing states to tax and tariff VoIP services as they do with traditional phone services would inevitably lead to a decrease in competition. Thus, the FCC must cautiously recommend the premise of a tax structure in order to promote further competition rather than stifle it.

Any regulatory scheme must develop a uniform system for levying access fees against VoIP providers. The justification for this is simply that many VoIP services rely heavily on the PSTN during a typical phone call. This will insure that there will continue to be incentive to modernize and maintain the PSTN. Without an adequate PSTN infrastructure, VoIP will be unable to fully thrive as an alternative to traditional phone services.

Consumer safeguards must continue to be implemented. The FCC's first exercise of its regulatory authority was an important step in protecting VoIP subscribers. However, VoIP providers must work to develop a back-up power source for their subscribers since VoIP services are currently unavailable during a power outage. Thus, even if emergency 911 services are available, as the FCC will soon require, a power outage would still prevent subscribers from accessing emergency services. Absent this basic safeguard, consumers will continue to be put at risk. The FCC should continue to press VoIP providers to enhance safety features associated with their services.

ISPs should be left alone – this will require a great degree of oversight. Any regulatory scheme must only touch upon the VoIP services that a particular company provides. Since many providers of VoIP also provide Internet access, this will require cooperation between the providers and the Federal government. Any regulatory scheme that stifles the relatively free ISP marketplace could cause smaller ISPs to lose business and ultimately fail.

## **CONCLUSION**

VoIP has become a viable alternative to subscribing to a traditional phone service. With the ongoing increase in subscribers it has become clear that VoIP cannot continue to be left unregulated. Also clear is that existing law cannot and will not be adequate in being applied to VoIP. Therefore, the federal government must act swiftly and decisively in proffering a regulatory scheme for VoIP that fosters competition and protects the consumer.