

**BEFORE THE CONNECTICUTCONNECTICUT DEPARTMENT OF PUBLIC  
UTILITY CONTROL**

Petition of the Office of Consumer Counsel  
for Enforcement of Quality of Service  
Standards for the Southern New England  
Telephone Company D/B/A AT&T  
Connecticut

Docket Number 08-07-15

**COMMENTS OF THE VON COALITION**

November 11, 2008

The VON Coalition<sup>1</sup> (“VON”) respectfully files these comments in this proceeding to urge the Connecticut Department of Public Utility Control (“DPUC” or “Department”) to refrain from imposing service quality standards on “Internet-based service providers” such as Voice Over Internet Protocol (“VoIP”) providers that currently operate in Connecticut. Not only are such rules unnecessary, impractical, and potentially counterproductive, but the Federal Communications Commission (“FCC”) has preempted state regulation of VoIP providers,<sup>2</sup> therefore the DPUC does not have jurisdiction to impose standards on VoIP providers. Moreover, the FCC is currently considering if, whether, and what service quality standards should apply to VoIP providers. It would be premature to act at this level before the FCC renders its determination. In addition, to the extent the Department attempts to regulate VoIP, it should in no way attempt to establish regulatory categories different from those established by the FCC or to apply any rules to unregulated non-Interconnected VoIP services.

In Question 13, the Department asks:

*“If the current Retail Service Quality Standards were to apply only to the ILEC and certified telecommunications service providers offering noncompetitive and competitive services that are circuit switched-based, comment on why such an application of these standards would not be discriminatory vis a vis Internet-based service providers. How should these standards apply to carriers offering Internet-based services? Elaborate on the service quality information, if any, that should be filed with the Department from Internet-based service providers. What*

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<sup>1</sup> The Voice on the Net or VON Coalition consists of leading VoIP companies, on the cutting edge of developing and delivering voice innovations over Internet. The coalition, which includes AT&T, BT Americas, CallSmart, Cisco, CommPartners, Covad, EarthLink, Google, iBasis, i3 Voice and Data, Intel, Microsoft, New Global Telecom, PointOne, Skype, T-Mobile USA, USA Datanet, and Yahoo! works to advance regulatory policies that enable Americans to take advantage of the full promise and potential of VoIP. The Coalition believes that with the right public policies, Internet based voice advances can make talking more affordable, businesses more productive, jobs more plentiful, the Internet more valuable, and Americans more safe and secure.. <http://www.von.org>.

<sup>2</sup> *In re Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211 (November 12, 2004), *NASUCA v. FCC*, Docket No. 05-1122 (8<sup>th</sup> Cir.).

*remedies does the Department have before it to enforce compliance by Internet-based service providers with these directives?”*

The VON Coalition applauds the Department’s desire to update its rules. Since the Department’s rules were initially developed, there have been dramatic developments in telecommunications, broadband, and other technologies that serve to offer competitive choices to consumers for telecommunications, broadband, and video services. However, simply because time has lapsed and there are additional technologies that provide voice services to customers, it does not mean that the historic regulatory framework, such as service quality standards, should be applied to newer and different technologies. VoIP is an excellent example of an evolving technology that can significantly boost the opportunities for consumers in Connecticut. However, given that the FCC has established a regulatory structure regarding VoIP and continues to exam additional relevant issues, the VON Coalition respectfully submits that the Department should not take any action to impose service quality regulation on VoIP providers.

**1. The DPUC Does Not Have Jurisdiction to Impose Service Quality Requirements on VoIP Providers.**

The VON Coalition submits that extending any service quality standards to VoIP services, as discussed in Question 13, is prohibited under federal law. In November 2004, the FCC released the *Vonage Order*<sup>3</sup> in which it pre-empted an order of the Minnesota Public Utilities Commission applying its intrastate “telephone company” regulations to VoIP services offered by Vonage because it found that VoIP is a jurisdictionally mixed service that cannot be practically separated into its inter and

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<sup>3</sup> *Id.*

intrastate components for the purpose of complying with state regulatory requirements. Recognizing that innovative and evolving services such as VoIP should not be subject to a patchwork of regulations that would directly conflict with the goals of the federal Act and the FCC's pro-competitive deregulatory rules, the FCC preempted state regulation of VoIP services. In doing so, the FCC also made clear that pre-empting state regulation of VoIP services was essential to "*increase investment and innovation in [VoIP services] to the benefit of American consumers.*" The FCC has recently confirmed that nothing in its subsequent decisions to apply limited federal rules to VoIP services undermines its holding in the *Vonage Order*. In March 2007, the 8th Circuit Court of Appeals affirmed the FCC's Vonage Jurisdictional Order, which preempted state regulation of VoIP services. Given the nature of VoIP as established by the FCC's Vonage order, any application of state service quality standards to VoIP necessarily would apply to interstate service – and would be preempted under federal law.<sup>4</sup> Accordingly, it would be unlawful for the Department to impose any service quality regulation on VoIP providers.

In addition, the DPUC lacks statutory authority to apply service quality standards under state law. VoIP does not fall within the categories of entities or services subject to the Connecticut service quality standards under Conn. Gen. Stat. §16-247a(6) which only applies to "providers of telecommunications services" The FCC has not resolved the threshold question of whether VoIP services are "telecommunications services" or "information services." The Connecticut statute does not allow the DPUC to evade this threshold classification issue.

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<sup>4</sup> See, e.g., *AT&T Corp. v. Public Utility Com'n of Texas*, 373 F.3d. 641 (5th Cir. 2004) and *AT&T Communications, Inc. v. Eachus*, 174 F.Supp.2d 1119 (D.OR. 2001).

In addition, even if the Department did have the authority to apply the service quality rules, many of the existing rules simply do not make sense for “Internet-based service providers.”<sup>5</sup> Conn. Agencies Regs. §16-247g-2 Quality of Service Standards, outline the performance measures with which telecommunications carriers offering services in Connecticut must abide. These standards for example measure the number of installation appointments missed. However, one of the many benefits of several of the different nomadic Interconnected VoIP service offering, for example, is that no installation appointment is necessary to use the service. The service is self-installed by the users merely by plugging a telephone adapter box into any available Internet connection. Other types of VoIP services, like the more than two dozen different VoIP applications now available on Facebook, are installed with the click of a mouse and also do not require an appointment. Illogically, application of service quality standards to “Internet-based service providers” would appear to require that installers and maintenance personnel be on the customers presence within a certain period of time.

Furthermore, the Connecticut service quality rules also require reporting on quality – which may not be controllable by the VoIP provider. By disconnecting voice from the underlying network, VoIP allows consumers to benefit in a variety of new ways. For example, the ability to use a VoIP service over any network from any location allows people to communicate in geographically dispersed locations in the event of a major emergency. Because an “over the top” or nomadic VoIP provider often does not dictate the type of broadband service a user chooses and has no ability to control the quality of the underlying broadband connection. As the FCC has previously found, “*an over-the-*

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<http://www.dpuc.state.ct.us/DPUCinfo.nsf/f17596944e54b1f985256b5100704d92/f8011f6a3c8960a585256b870053d691?OpenDocument>

*top VoIP provider's ability to assure a particular quality of service could vary depending upon whether it has its own IP switches and long-haul fiber (or a virtual private network (VPN)), or whether it relies on the public Internet to carry subscribers'*

*communications.”*<sup>6</sup> This is because VoIP service quality is dependent upon the amount of latency and packet loss in the underlying network. Network capabilities and the resulting packet loss and latency can vary significantly depending on provider, type of Internet access (DSL, cable, T1, wireless, satellite, etc), the amount of traffic on the network at any moment in time, and whether the broadband network utilizes available quality of service (“QoS”) technologies. This is very different than traditional wireline service (for which the DPUC’s service quality rules were designed) where the carrier owns/controls/manages its phone network, and barring a catastrophic event, ensures a high quality of service. It means that an over-the-top VoIP provider has no independent ability to guarantee the quality of the broadband connection and can provide no assurances that the underlying broadband provider’s network will have sufficient quality of service at all times – including in the event of a network or power failure. Because of this limitation, the FCC already requires Interconnected VoIP providers to affirmatively obtain the customers consent that they understand the limitations of the service in the event of a network or power failure.<sup>7</sup>

Network limitations, however, have not stopped VoIP providers I a competitive market from working to further improve the quality of voice communications in America. Some VoIP providers, for example, are now delivering “wide-band” audio quality which

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<sup>6</sup> Verizon Communications Inc. and MCI, Inc. Applications for Approval of Transfer of Control, Memorandum Opinion and Order, WC Docket No. 05-75 (Oct. 31, 2005).

<sup>7</sup> FCC E911 rules for Interconnected VoIP providers already require providers to warn and obtain affirmative acknowledgement from the consumer that they understand that the service may not work with a network or power failure.

goes far beyond the PSTN's limited audio quality.<sup>8</sup> And in competitive markets like CMRS, the Department has previously not found the need to apply these same service quality standards. As a result, the VON Coalition submits that it is inappropriate for the Department to implement service quality standards on VoIP providers at this time.

## **2. The Department Should Give Deference to the FCC's Pending Rulemaking on Service Quality Standards for VoIP.**

It also would be premature for the Department to consider any service quality standards on VoIP. The FCC has a pending IP-enabled services proceeding in which it is evaluating whether to apply any traditional common carrier regulations to IP-enabled services, including interconnected VoIP.<sup>9</sup> The Department should allow the FCC to make its determinations on not only whether it will apply such standards, including quality of service, but also, if it determines that it will apply some regulations, what those standards will be, before the DPUC makes any potentially unlawful and inconsistent determinations on this issue.

The FCC has neither acted nor "defined" the state commissions' role in regulation over VoIP. While the FCC has applied limited obligations to "interconnected VoIP"<sup>10</sup> providers, which has not included application of service quality standards, there are numerous innovative VoIP services which are not covered by the FCC's definition of "interconnected VoIP" or regulated at all. These non-interconnected VoIP services

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<sup>8</sup> Two-thirds of the frequencies in which the human ear is most sensitive and 80 percent of the frequencies in which speech occurs are beyond the capabilities of the public switched telephone network.

<sup>9</sup> *In re IP-Enabled Services*, Notice of Proposed Rulemaking, WC Docket No. 04-36 (rel. March 10, 2004).

<sup>10</sup> Interconnected VoIP service means only those VoIP services that are substitutes for traditional telephone services – *e. g.*, only intrastate VoIP services offered to the public for a fee that permit users to receive calls from and terminate calls to the public switched telephone network. In-bound one-way VoIP services, for example, may utilize a telephone number but does not allow the user to make calls to the public switched telephone network.

which may use a telephone number but do not allow a user to call the public switched telephone network are not required by the FCC to provide E911 or to pay universal service. At the very least, state obligations should in no-way extend to non-interconnected VoIP services.<sup>11</sup>

In addition, there is no sign of a consumer problem. In a recent survey, nearly 90 percent of Interconnected VoIP early adopter households claim the same or better voice quality and service reliability than traditional landline service.<sup>12</sup> Another study found 85% of VoIP calls exceed PSTN quality, and that VoIP calls connect quicker than PSTN calls<sup>13</sup>. Likewise according to J.D. Powers, while customer satisfaction with traditional phone providers fell slightly, new entrant cable operators selling VoIP had subscriber satisfaction scores 30 points above the overall industry.<sup>14</sup>

As a result, the VON Coalition submits that it is unlawful and inappropriate for the DPUC to implement service quality standards on VoIP providers at this time.

Instead, the DPUC can foster VoIP benefits by continuing their existing policies. VoIP

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<sup>11</sup> If the DPUC wanted to pursue whether there were appropriate quality of service standards for interconnected VoIP, it will need to conduct additional proceedings and workshops to obtain evidence on the technology, the services provided, and reasonable service standards. There has been no showing the VoIP technologies act in the same manner as wireline technologies, particularly with respect to service provisioning, restoration of service, and other quality of service issues. Specific input would have to be solicited from VoIP carriers (which may or may not be certificated before the Department) to ensure that the DPUC has the full breadth of VoIP offerings and varying methods by which VoIP is operationally provided. It is only at that time, that the DPUC could consider proposing potential standards. Again, however, it is premature for the Department and VoIP carriers to expend such resources until the FCC has definitively ruled on its jurisdiction over VoIP, the role of state regulatory agencies (if any), and whether it will apply service of quality standards on VoIP.

<sup>12</sup> March 2006 survey by Telephia.

<sup>13</sup> According to Minacom's, August, 2006 Standards-Based, North American & Global VoIP Testing Study, VoIP service had an average Mean Opinion Score (MOS) of 4.2, compared to 3.9 for the PSTN - MOS is a scale commonly used to describe speech quality, ranging from 1 (worst) to 5 (best). In addition to superior sound quality, calls over VoIP connected quicker overall - 8.2 seconds on average, compared to 8.9 seconds for those placed over the PSTN.

[http://www.minacom.com/modules/minaweb/download/Internet%20Phone%20Quality%20Increases%20Significantly%20and%20Steadily%20\\_2\\_.pdf](http://www.minacom.com/modules/minaweb/download/Internet%20Phone%20Quality%20Increases%20Significantly%20and%20Steadily%20_2_.pdf)

<sup>14</sup> Customer satisfaction with traditional phone providers fell 3.3% in 2005 to 670 on a 1,000-point scale, according to J.D. Powers. Cable operators entering new markets, many selling broadband and VoIP, had subscriber satisfaction scores 30 points above the overall industry. Comm Daily 7-13-06

can play a critical role in boosting broadband demand, putting new tools in the hands of consumers and small businesses to enhance productivity, manage daily affairs, and enjoy leisure pursuits.

Indeed, with the right policies, VoIP technologies can deliver enormous benefits for Connecticut consumers:

- At a time when consumers are struggling to make their mortgages and pay their bills, VoIP enabled competition can save Connecticut consumers an astounding \$1.1 billion over the next 5 years – putting real money back into Connecticut consumers’ pockets through the power of competition at a time when families really need it.<sup>15</sup>
- And by harnessing VoIP as a broadband driver, just a 7% increase in broadband adoption could create nearly 2.4 million more jobs per year nationwide – and nearly 30,000 new jobs in Connecticut alone.<sup>16</sup> In fact, VoIP is now projected to be the number one job creator of any industry in the country.<sup>17</sup>
- Already businesses are boosting productivity by as much as 15%, and small businesses could save \$16 billion over the next 5 years through VoIP enabled competition. For small businesses in Connecticut, the real engines for job creation, VoIP enabled competition can enable savings of more than \$200 million.<sup>18</sup>

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<sup>15</sup> MICRA report available  
[http://www.micradc.com/news/publications/pdfs/Updated\\_MICRA\\_Report\\_FINAL.pdf](http://www.micradc.com/news/publications/pdfs/Updated_MICRA_Report_FINAL.pdf)

<sup>16</sup> See Connected Nation study:  
[http://www.connectednation.com/documents/2008\\_02\\_21\\_TheEconomicImpactofStimulatingBroadbandNationally\\_AConnectedNationReport\\_001.pdf](http://www.connectednation.com/documents/2008_02_21_TheEconomicImpactofStimulatingBroadbandNationally_AConnectedNationReport_001.pdf)

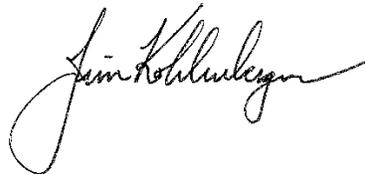
<sup>17</sup> See IBIS study at <http://www.ibisworld.com/pressrelease/pressrelease.aspx?prid=116>.

<sup>18</sup> MICRA report

However, just as VoIP enabled competition can enable broader economic growth, stimulate peer production, and enhance social well-being, so can a critical misstep be highly detrimental and counter-productive to broadband deployment, new ideas and applications, and the growth of Connecticut's economy. To enable consumers to benefit from VoIP enabled competition, the Connecticut Attorney General has previously encouraged the DPUC to take steps to assure access to VoIP.<sup>19</sup>

For these reasons, the VON Coalition looks forward to working with the Department to forge pragmatic solutions that enable consumers, businesses, and the economy to achieve the full promise and potential that VoIP can deliver. However, this proceeding is not the proper time or forum to establish service quality standards for VoIP.

Respectfully submitted,



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<sup>19</sup> See Connecticut Attorney General press release, August 22, 2005 urging the “DPUC to consider specific measures” for among other things “Assuring access to VOIP (voice over internet protocol).” See <http://www.ct.gov/ag/cwp/view.asp?A=1949&Q=300460>