

**PENNSYLVANIA
PUBLIC UTILITY COMMISSION
Harrisburg, PA 17105-3265**

Investigation into Voice Over Internet)
Protocol As a Jurisdictional Service) Docket No. M-00031707

COMMENTS OF THE VOICE ON THE NET COALITION

The Voice on the Net (“VON”) Coalition¹ files these Comments in the above-captioned proceeding, in which the Pennsylvania Public Utility Commission (the “Commission”) requests comment on whether the Commission has jurisdiction to regulate Voice over Internet Protocol (“VoIP”) service in the Commonwealth and, if so, whether the Commission should exercise it.²

The development of VoIP is having a gradual but profound and beneficial impact on the United States and the world. Use of VoIP is drastically reducing the cost of international communications and creating a foundation for broadband communications that have much greater capacity and functionality than is offered by the public switched telephone network. Since the inception of VoIP, the Federal Communications Commission (“FCC”) has consistently declined to regulate. On the international stage, the FCC has consistently and repeatedly voiced its support for the non-regulation of advanced technologies, including IP telephony. For the

¹ The VON Coalition consists of companies that are developing and offering voice products and services for use on the Internet and Internet Protocol (“IP”) networks. Largely through the efforts of VON Coalition members, including Intel, Microsoft, iBasis, ITXC, pulver.com, Sonus Networks, Sylanro, and Texas Instruments, packet-switched voice services are emerging as an exciting new technology benefiting consumers throughout the world. Since its inception, the VON Coalition has consistently advocated that federal and state regulators maintain current policies of refraining from extending legacy regulations to Internet services, including VoIP.

² *Investigation into Voice over Internet Protocol as a Jurisdictional Service*, Docket No. M-00031707, Order (May 1, 2003) (PA Bulletin, Doc. No. 03-965, 33 Pa.B. 2449).

reasons stated herein, the Commission should follow the FCC's lead and decline to take any action that would subject VoIP products and services to regulation.

Background

Voice is an application. The development of VoIP products and services is tied closely to the deployment of the Internet generally, as voice is essentially just another application being deployed on these networks, often in combination with other applications.

Transmission Control Protocol/Internet Protocol ("TCP/IP" or "IP") is a set of rules that facilitates the communication of data among computers operating on a wide variety of networks with differing hardware configurations and operating systems, deploying different protocol-independent applications. IP is a nonproprietary standard agreed on by a consortium of hardware and software developers, and is free to be used by anyone. As such, it permits entrepreneurial firms to develop new hardware and software applications that can seamlessly fit into the network. This flexibility, and the creativity of the millions of people who have made use of it, has made IP the common element in and the foundation for the phenomenal growth of the Internet, an interconnected group of thousands of computer-based networks.

On IP networks, all data, whether voice, text, video, computer programs, or numerous other forms of information, travel through the network in packets.³ Each destination in the system has a unique IP address, and packets are routed to their destination according to the address contained in a header. Data may be transmitted at the same time from one user to many users and data addressed to various users can share the same line.

³ IP networks trade increased use of computer processing for a decreased use of transmission facilities. IP networks also offer the potential of higher reliability than the circuit-switched PSTN, since IP networks automatically re-route packets around problems such as malfunctioning routers or damaged lines and do not rely on a separate signaling network.

Initial VoIP applications attempted to reproduce speech as accurately as possible under the worst possible conditions, involving little bandwidth and high error rates. Since then, VoIP applications have been developed that permit users with a personal computer to combine speech with other forms of data, including video, text, and graphics. Thus, for instance, two people can see each other while they talk and can trade text, jointly process a document, or draw and review diagrams on an electronic whiteboard.⁴ More advanced collaborative applications take advantage of the flexibility of packet-switching to permit all of this information transfer to be shared simultaneously by many different users. The potential of these VoIP applications for education, business, and consumer use is extraordinary and goes far beyond what is practical in a circuit-switched environment using the public switched telephone network (“PSTN”) alone.

Enterprise deployment is an area in which VoIP is making significant strides. Corporations and other large institutions are adding voice capability to their Internet connections and data networks in order to save money and increase efficiency. VoIP provides additional benefits, as well; we understand that the U.S. Department of Commerce recently added voice capability to its data network in part to acquire the ability to provide emergency alerts to its employees. Deployment in the enterprise environment ranges from point solutions, which involve the installation of key applications to address pressing problems, to network upgrades

⁴ Video relay service (“VRS”) for the deaf and hard-of-hearing is one type of innovative service that VoIP makes possible. In March 2000, Sorenson Vision introduced the first Internet-based video interpreting service for the deaf and hard-of-hearing. Today, callers using the Sorenson VRS may use the Sorenson VP-100 (a videophone appliance which includes a web camera) or Sorenson EnVision SL (video relay software for sign language users, which requires use of a separate web camera). Information about Sorenson VRS is available at <http://www.s-vision.com/>. Other providers of VRS include AT&T (<http://www.relaycall.com/vrs/>) and Sprint, which in May 2002 launched its VRS in conjunction with Communications Service for the Deaf, Inc. (“CSD”) (www.usavrs.com); as of May 2003, USAVRS offered nine video interpreting centers nationwide, employing more than 300 video interpreters.

and more global solutions intended to establish a unified network capable of carrying data and voice traffic.

VoIP has lowered the cost of international calling. IP networks are widely-recognized by foreign governments as value-added networks that are not subject to accounting rate settlements applicable to traditional telephony. Indeed, IP traffic helps put pressure on foreign governments to reform their accounting rate structures and move them closer to true costs. In this respect, the FCC has championed the development of IP voice networks, with consumers as the beneficiaries of this policy.⁵

VON Coalition members have persuasively invoked the U.S. regulatory model in lobbying overseas governments, such that in many instances, even in telecom monopoly markets, the first steps toward deregulation have included implementing Internet telephony services. In fact, Internet telephony provides an unusually effective procompetitive message: it enables overseas carriers to use existing infrastructure while saving costs and introducing a new technology to be used with future applications. For example, one VON Coalition member enabled a local carrier in Bolivia to take advantage of the recent deregulation and, with no capital expenditure, become a domestic and international long distance carrier on November 28, 2001, the day Bolivia deregulated its telephony markets. That carrier now has over 40% market share in several regions of the country and averages 10-15% market share country-wide. Consumer rates in Bolivia have been reduced 40% in a year. This competition and resulting rate reduction, and such phenomena in a lengthy list of countries, would not have happened without the use of

⁵ The FCC has found that “in the international realm, . . . IP telephony serves the public interest by placing significant downward pressure on international settlement rates and consumer prices.” *Federal-State Joint Board on Universal Service*, Report to Congress, 13 FCC Rcd 11501, 93 (1998) (“*Stevens Report*”), citing *Rules and Policies on Foreign Participation in the U.S. Telecommunications Market and Market Entry and Regulation of Foreign-Affiliated Entities*, Report and Order and Order on Reconsideration, 12 FCC Rcd 23, 891 (1997).

voice over the Internet, as emerging entities do not have the money to build out a circuit-switched network. Similarly, rates to and from India have come down almost 50% since that country's April 2002 deregulation. Much of the voice traffic now coming and going from India to the rest of the world is traveling over the Internet. India was able to accomplish this because of the rapid deployment, low capital expenditures and flexibility afforded by voice over the Internet.

VoIP is encouraging broadband deployment. The FCC has identified as its "primary policy goal" the encouragement of the ubiquitous availability of broadband to all Americans. *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Notice of Proposed Rulemaking, FCC 02-42 (rel. Feb. 15, 2002) at ¶ 3 (launching a thorough examination of the appropriate legal and policy framework for broadband access to the Internet); *see also Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, FCC 02-77 (rel. March 15, 2002) at ¶4 (concluding that cable modem service is an interstate information service, not a cable service, and initiating a proceeding to determine, *inter alia*, whether cable modem service should be regulated). Increasing deployment of VoIP promotes this goal by spurring the demand for broadband. Satisfying that demand creates incentives for all carriers to invest in their networks and extend their broadband capabilities.

Deployment of consumer broadband is encouraged by personal computers that increasingly offer VoIP capability. For instance, Microsoft's most recent operating systems include an application that enables VoIP. A new group of entrepreneurs has begun offering innovative new voice applications to residential and small business consumers who have broadband connections, including unlimited local and long-distance calling and on-line call logs.

With Free World Dialup (“FWD”) 3.0, for example, users of different broadband technologies (cable, DSL, Ethernet, satellite, etc.) can place calls over the Internet to other FWD members without ever accessing the PSTN. Unlike a traditional calling arrangement in which long-distance calls generate usage-sensitive charges, in some cases the consumer pays for a broadband connection and VoIP capability but then is able to make calls for free. The extraordinary success of Yahoo Japan’s voice over broadband service is confirmation of the potential for voice applications to drive the deployment of broadband and for broadband customers to use their high-speed connections for voice communications.⁶

Current federal law and policy exempt VoIP services from regulation. To date, the FCC has declined to classify any VoIP service as a regulated “telecommunications service.” Aware of the “wide range of services that can be provided using packetized voice and innovative [customer premise equipment],” the FCC has chosen to proceed cautiously. *Federal-State Joint Board on Universal Service*, Report to Congress, 13 FCC Rcd 11501 at ¶ 90 (1998) (*Stevens Report*). It has expressly deferred any definitive pronouncement regarding even those offerings, such as phone-to-phone IP telephony, that bear many of the characteristics of regulated, telecommunications services until it has more facts and is confident that its definition of a particular service “is not likely to be quickly overcome by changes in technology.” *Id.* (“[W]e recognize the need, when dealing with emerging services and technologies in environments as dynamic as today’s Internet and telecommunications markets, to have as complete information and input as possible.”).

⁶ See, e.g., “Japan’s Yahoo! BB Tops 2 Million ADSL Users, VoIP Reaches 1.8 Million,” available at <http://www.convergedigest.com/DSL/lastmilearticle.asp?ID=6658> (last visited June 6, 2003).

The FCC has expressed continuing support for its decision not to regulate advanced services, including IP telephony, when describing the U.S. model to international regulators. *See, for example, Remarks of FCC Chairman Michael K. Powell, ITU 2nd Global Symposium for Regulators, Geneva, Switzerland (December 4, 2001)* (“In the United States we have yet to choose to regulate IP telephony and are confident of that decision. We do not assume it is simply a new form of an old friend.”); *see also Welcoming Remarks by Commissioner Kevin J. Martin to the African VoIP Conference, Supercomm 2002, Atlanta, Georgia (June 5, 2002)* (“As you know, in the United States, we have not chosen to regulate IP telephony, but are continuing to monitor marketplace developments.”).

A handful of states have begun to examine whether it is appropriate to regulate VoIP services and, as a general rule, have declined to do so. Most recently, Florida has adopted legislation finding that the provision of unregulated VoIP is in the public interest and amending Section 364 of its Code to exempt VoIP from state regulation. *See Florida S.B. 654*. Over the last several years, proceedings examining VoIP have been terminated without action by state regulators in Colorado, Nebraska, and South Carolina. *But see NY PSC Case 01-C-1119, Complaint of Frontier Telephone of Rochester against US DataNet Corporation, Order Requiring Payment of Intrastate Carrier Access Charges (May 31, 2002)* (“*DataNet*”) (concluding that providers of retail intrastate phone-to-phone IP telephony services are required to pay intrastate access charges on calls that originate and terminate in New York).⁷

⁷ The *DataNet* decision on its face is limited to a specific complaint concerning DataNet’s services and does not address VoIP generally. *DataNet* at 9. Moreover, it is not apparent that the VoIP aspect of DataNet’s service was relevant to the NY PSC, since, as the state commission noted, DataNet’s use of IP “is only incident to its own private network,” and a “substantial portion of its traffic uses no IP conversion at all and is handled by interexchange carriers.” *Id.* at 8. Nonetheless, to the extent the NY PSC decision is viewed as imposing regulation on a VoIP service, the VON Coalition would oppose such a policy, for many of the reasons described

Discussion

I. State action that is inconsistent with federal law or policy is subject to preemption

It may be fitting for the Commission to consider the full ramifications of any action that may be proposed as a result of this proceeding. Specifically, it may not be the best use of scarce Commission resources to examine a matter that is likely to be pre-empted by the FCC.

It is well-established that that a federal agency, acting within the scope of its delegated authority, may preempt inconsistent state regulation. *Louisiana Public Service Comm'n v. FCC*, 476 U.S. 355, 368 (1986) at 368-369. Pursuant to Section 2(b)(1) of the Communications Act of 1934, as amended, the FCC is empowered to preempt state regulation of intrastate communications when state decisions regarding intrastate communications would negate, thwart, or impede the exercise of lawful federal authority over interstate communications. *Id.* at 375; *see also California v. FCC*, 905 F.2d 1217 (9th Cir. 1990) and *Public Utility Commission of Texas v. FCC*, 886 F.2d 1325, 1331 (D.C. Cir. 1989). The FCC has demonstrated that it will exercise its preemption powers in such circumstances. In 1992, for example, the FCC preempted an order of the Georgia Public Service Commission that “froze,” or barred, BellSouth’s offering of voice mail service in Georgia. *Petition for Emergency Relief and Declaratory Ruling Filed by*

below. For one, the decision misconstrues the FCC’s *Stevens Report*. Contrary to the *DataNet* decision, the FCC has not ruled that phone-to-phone VoIP is a telecommunications service and it has not approved the imposition of access charges on IP telephony service providers. Rather, the FCC expressly deferred any decision on those issues. *Stevens Report* at ¶¶ 89-91. For another, continued forbearance on the part of federal and state regulators encourages VoIP deployment, thereby promoting national objectives, such as broadband deployment and increased competition, without any adverse consequences for other policy goals. VoIP is still in an early stage of deployment and attempts at regulation will only stifle innovation and investment. Constructing any actual regulation is also problematic, since it is typically difficult or impossible to distinguish voice from other applications travelling over an IP network or to distinguish jurisdictional boundaries, and these complexities are all the more substantial for such a rapidly-evolving set of technologies.

BellSouth Corporation, 7 FCC Rcd 1619 (1992) (state action preempted as inconsistent with FCC policy to allow enhanced services, such as voice mail, to be provided on an unregulated basis).

In the instant case, the FCC has adopted a policy that excludes VoIP services from telecommunications regulation. A finding by the Commission that VoIP services are subject to state public utility regulation would conflict with this federal policy. Because it would negate, thwart, or impede the exercise of lawful federal authority over interstate communications, such a finding would be subject to federal preemption.

II. Public policy is served by continued forbearance

VoIP offers substantial benefits. IP voice services are providing an opportunity for continued innovation through the use of an open architecture, are having a positive impact on international communications and the U.S. balance of trade, and are facilitating the deployment of broadband for which the public has shown significant and continuing demand. Increasing VoIP deployment promotes these and other national objectives with little or no countervailing costs. At the federal level, VoIP is not threatening universal service support mechanisms or the access revenues of incumbent local exchange carriers.⁸ No disadvantages appear to exist at the state level, either. The Commission has not identified any adverse consequences to Pennsylvania

⁸ One factor contributing to this minimal impact is a *de minimis* penetration rate. AT&T, for example, describes IP telephony services as representing no more than 1% and 5% of all interexchange calling. *Petition of AT&T for Declaratory Ruling that AT&T's Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, AT&T Petition at 27. Purchases of underlying telecommunications inputs by ISPs generate indirect contributions to universal service support mechanisms. Further, much of the deployment of VoIP has focused on international traffic or enterprise deployment, much of which is outside the funding regime for universal service support. Impacts are further minimized by current rules governing access charges and universal service that accommodate information service provider ("ISP") usage. Under an access charge exemption dating to the 1980's, ISPs compensate local exchange carriers through the purchase of business lines, not switched access.

consumers as a result of VoIP activity, nor has it identified any detrimental effects that warrant regulatory review or oversight. Indeed, to the extent the Commission describes VoIP as “a potential facilities-based alternative to both traditional wireline and wireless telecommunications service,” VoIP services would appear to offer substantial benefits. *Order* at 1. Under these circumstances, public policy is best served by continued inaction at both the federal and state levels.

The FCC, which to date has chosen only to monitor VoIP, currently has two pending proceedings involving the continued exemption of VoIP services from the regulatory framework. *See, Petition of AT&T for Declaratory Ruling that AT&T’s Phone-to-Phone IP Telephony Services are Exempt from Access Charges*, WC Docket No. 02-361, and *Petition of pulver.com for Declaratory Ruling that pulver.com’s Free World Dialup is neither Telecommunications nor a Telecommunications Service*, WC Docket No. 03-45. These proceedings offer the FCC the opportunity to consider the diverse viewpoints of interested parties, evaluate the effects of different VoIP services on both intercarrier compensation and universal service, and determine the appropriate regulatory response, if any, to specific VoIP services. Given express national policies and the complexities associated with IP services, including the inseparability of interstate and intrastate IP communications, it is for the FCC – not the individual states – to determine this response. For example, as it did with ISP traffic, the FCC may determine that VoIP traffic is jurisdictionally interstate, thereby placing it under the purview of federal regulators rather than state public utility commissions. *See Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Inter-Carrier Compensation for ISP-Bound Traffic*, 14 FCC Rcd 3689 (1999)(subsequent history omitted); *In the Matter of Starpower Communications v. Verizon South, Inc. (“Starpower IP”)*, 17 FCC Rcd 6873, 6886

(2002) (“ISP-bound traffic is jurisdictionally interstate.”). The FCC may take such action to avoid a patchwork of state regulation, which risks a chilling effect on innovation and competition:

If federal rules governing Internet telephony are problematic, state regulations seem even harder to justify. . . . There is a good argument that Internet services should be treated as inherently interstate. The possibility that fifty separate state Commissions could choose to regulate providers of Internet telephony services within their state[s] (however that would be defined), already may be exerting a chilling influence on the Internet telephony market.

Kevin Werbach, FCC Office of Plans and Policy, *Digital Tornado: The Internet and Telecommunications Policy* (March 1997) at 40.

The FCC’s adoption of its hands-off approach to VoIP is attributable, in part, to the substantial complexities associated with defining individual voice offerings and drawing distinctions between the regulatory classifications of “telecommunications services” and “information services” in the face of this rapidly-evolving technology. As the FCC explained in the *Stevens Report*, “[w]e recognize that new Internet-based services are emerging, and that our application of statutory terms must take into account such technological developments. . . . We do not believe . . . that it is appropriate to make any definitive pronouncements [regarding IP telephony] in the absence of a more complete record focused on individual service offerings.” *Stevens Report* at ¶ 83. That individual focus is required because VoIP includes a wide variety of network architectures, technologies and applications. Complicating these definitional tasks is the fact that all IP traffic travels as indistinguishable packets of digital bits, thereby blurring the lines between traditional services and categories. There currently exists no method to identify or distinguish VoIP from other IP traffic, or to determine the jurisdictional nature of the traffic. Any attempt by the provider to determine the content or jurisdiction of the transmission

necessarily raises significant privacy issues that do not exist in the traditional circuit-switched environment. In addition, one of the inherent characteristics of VoIP, and one of its advantages, is that it is entirely geographically neutral. There is no dedicated transmission facility required, there are no facilities required to be located locally. Internet traffic can travel anywhere in the world with no material difference in cost, and facilities which act on the call can be (and are) located anywhere.

Further, VoIP remains a nascent industry. Premature intervention risks stifling the innovation and competition that are hallmarks of nascent industries, and is at odds with the federal statutory mandate of Section 230(b) 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.*” 47 U.S.C. § 230(b)(2) (emphasis added). As a nascent industry, VoIP has not had a significant impact on the revenues of traditional domestic circuit-switched telephone companies or on the funding of universal service support programs.

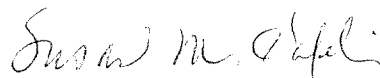
Under these circumstances and in light of the FCC’s pending VoIP proceedings, the Commission’s consideration of VoIP services is unnecessary.

Conclusion

Therefore, based on the foregoing, the VON Coalition urges the Commission to defer to federal law and policy and adhere to the hands-off policy regarding VoIP services adopted by the FCC.

Respectfully submitted,

THE VON COALITION



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CERTIFICATE OF SERVICE

I, Angela Green, hereby certify that on this 30th day of June 2003, a true and correct copy of the foregoing "Comments of the VON Coalition" was mailed via first-class mail, postage prepaid, to the following:

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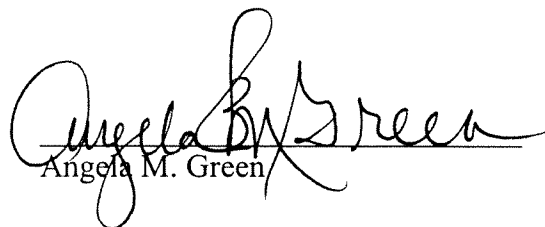
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