

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matters of)	
)	
IP-Enabled Services)	WC Docket No. 04-36
)	
E911 Requirements for IP-Enabled Service Providers)	WC Docket No. 05-196
)	

To: The Secretary
The Commission

**COMMENTS OF
THE VOICE ON THE NET COALITION**

Glenn S. Richards
Tony Lin
PILLSBURY WINTHROP SHAW PITTMAN LLP
2300 N Street, N.W.
Washington, D.C. 20037
(202) 663-8000

Counsel for the VON Coalition

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Summary

Dialing 9-1-1 may be the most important call a person ever makes. That is why the Voice on the Net Coalition (“VON Coalition”) is working closely with other organizations, such as the National Emergency Numbering Association, to accelerate the deployment of emergency services and fulfill the vision of a fully IP-compatible 9-1-1 network that will provide a major improvement in public safety. Indeed, VoIP providers are working to provide E9-1-1 services as soon as technologically possible and to advance the transition of the nation’s emergency network to an IP-based network.

In the *NPRM*, the Commission asks generally whether it “should expand the scope and requirements of the [E9-1-1] Order.” The VON Coalition strongly believes that additional regulatory action, in general, is not only unnecessary at this time, but also would be counterproductive to the Commission’s goal of rapid implementation of E9-1-1 capabilities in VoIP services.

Indeed, the FCC just established VoIP E9-1-1 requirements, and industry and others are diligently working to meet those requirements within the accelerated 120-day deadline. Rather than adopting more onerous rules that could potentially stifle VoIP innovation and decrease broadband deployment and voice competition, the FCC should wait until the requirements have been in effect for awhile and then determine whether there is a need for further regulation. At present, there is no reason to think that the rules are inadequate.

Moreover, the imposition of additional VoIP E9-1-1 regulations is likely to be counterproductive. In the *E9-1-1 Order*, the Commission achieved a delicate balance among the expectations and needs of all parties. Additional regulations would likely upset this balance, and

jeopardize the substantial benefits that the VoIP industry makes possible today and will make possible in the future – including E9-1-1 advancements.

In addition, the Commission should not expand the scope or requirements of the *E9-1-1 Order* in the specific ways that the *NPRM* contemplates, for the following reasons:

Automatic location information. The FCC should not require all terminal adapters or equipment used in the provision of interconnected VoIP service sold as of June 1, 2006 to be capable of providing caller location information automatically. Such a specific technology mandate would be counter to the FCC's technology neutral goals. The VoIP industry is actively researching various technological E9-1-1 solutions. Imposing a specific technology mandate or unrealistic deadlines will only jeopardize industry progress. Such rules also would raise serious questions regarding consumer privacy.

Non- or partially-interconnected VoIP providers. The Commission should not impose E9-1-1 obligations on non-interconnected or partially-interconnected VoIP providers. VoIP customers are sophisticated, early adopters of state-of-the-art technology and do not purchase such limited services as replacements for standard telephone service and, accordingly, would not reasonably expect to have E9-1-1 services.

Wireless VoIP providers. The FCC should not impose additional obligations on VoIP providers if their subscribers use a wireless broadband connection. VoIP providers do not control and, in many cases, do not even know which type of broadband connection their subscribers use. To the extent that providers offer dual mode VoIP/CMRS services, they should be able to choose on which service they will provide E9-1-1.

Performance standards and redundant systems. The Commission should not require VoIP providers to adopt performance standards or create redundant systems for providing E9-1-1

services. Such requirements would drastically increase costs and alter the structure and nature of the VoIP industry, possibly slowing its development. Also, Internet communications are already very resilient, and industry standards efforts will ensure that services will continue to be provided in a highly reliable manner.

Persons with disabilities. No additional requirements are necessary to ensure that persons with disabilities can use interconnected VoIP services. Indeed, the industry is already moving forward to ensure that interconnected VoIP services are compatible with TTYs/TDDs, and there are already IP-enabled software programs interoperable with TTYs/TDDs.

Role of states. The Commission should exclusively administer and enforce the new VoIP E9-1-1 rules, and should ensure, as in *Vonage*, that VoIP providers are not subject to 50 different E9-1-1 regulatory regimes. In this regard, the FCC should consider preempting state laws and creating tort liability immunity for VoIP providers in their provision of E9-1-1 services, equivalent to that enjoyed by wireline and wireless carriers. Such action would create parity among voice service providers and facilitate the growth of competitive VoIP services. The FCC also should encourage states to focus on transitioning PSAPs to an IP-enabled emergency network.

Fees. The Commission should not adopt rules governing the payment of 9-1-1 fees. Interconnected VoIP providers are already paying 9-1-1 fees either directly or indirectly to the appropriate administrators.

Areas with no selective router. The FCC should not impose E9-1-1 requirements on providers of interconnected VoIP service in geographic areas served by PSAPs that are not connected to a selective router. Instead, the FCC should work with the E-911 Implementation

Coordination Office or Congress to accelerate the transition to an IP-enabled 9-1-1 network that eliminates the need for selective routers.

In sum, in order to make VoIP E9-1-1 capabilities available as soon as possible and transition to an IP-based nationwide emergency network, the VON Coalition respectfully urges the Commission not to impose additional E9-1-1 obligations on VoIP providers or otherwise expand the scope of its present VoIP E9-1-1 requirements.

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The Voice on the Net Coalition (“VON Coalition”), by its counsel, hereby submits these comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.¹ The VON Coalition consists of companies on the cutting edge of developing and delivering voice applications and services for use over the Internet and Internet Protocol (“IP”) networks.² The VON Coalition believes that Americans benefit from a generally “hands off” regulatory approach to Internet and Internet-based services like Voice over the Internet Protocol (“VoIP”).

The VON Coalition knows that dialing 9-1-1 may be the most important call a person ever makes. For this reason, the VON Coalition is committed to making E9-1-1 capabilities available as soon as possible and is working to advance the transition to an IP-based emergency

¹ See *In the Matters of IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, FCC 05-116 (June 3, 2005) (hereafter, “*E9-1-1 Order*” or “*NPRM*” as appropriate). The *NPRM* was published in the Federal Register on June 29, 2005. See 70 F.R. 37307 (June 29, 2005).

² VON Coalition members include Acceris Communications, Accessline Communications, AT&T, BMX, BT Americas, CallSmart, Conveda, Covad, EarthLink, iBasis, Intel, Intrado, Level 3, MCI, Microsoft, Mobilepro, Multi-Link, New Global Telecom, PointOne, pulver.com, Skype, Switch Business Solutions, T-Mobile USA, USA DataNet, and VocalData. More information about the VON Coalition can be obtained at <http://www.von.org>.

network. Indeed, VoIP providers are diligently working to meet the FCC's ambitious November 28 deadline for providing national E9-1-1 service.

Given the effort and commitment by the VoIP industry and others to develop and implement E9-1-1 solutions, the VON Coalition believes that there is no legitimate basis for the FCC to implement additional E9-1-1 regulations at this time. Moreover, onerous new requirements are likely to be counterproductive – stifling innovation at the expense of consumers, who will be deprived of the new services, increased choices, and lower prices that VoIP can deliver. Accordingly, the VON Coalition respectfully urges the Commission not to impose additional E9-1-1 obligations on VoIP providers or otherwise expand the scope of its present E9-1-1 rules at this time.

I. BACKGROUND AND INTRODUCTION

Largely through the efforts of VON Coalition members, Internet voice services are emerging as a transformational new technology benefiting consumers, businesses, and governments throughout the world.³ The VON Coalition believes that with the right policies – including those for E9-1-1 – VoIP technologies can accelerate the next wave of the information revolution, spark a powerful new cycle of job creation and economic growth, and unleash extraordinary new consumer benefits.

A. Joint E9-1-1 Efforts of the VON Coalition and NENA

The VON Coalition and the National Emergency Numbering Association (“NENA”) share the common goals of accelerating the deployment of emergency services and fulfilling the

³ See Comments of the Voice on the Net Coalition, WC Docket No. 04-36, at 12 (May 28, 2004).

vision of a fully IP-compatible 9-1-1 network. The groups have been working together for nearly two years on technical and policy solutions to VoIP E9-1-1 issues.⁴

On December 1, 2003, at the first FCC hearing on VoIP and IP-enabled services, the VON Coalition highlighted its commitment to providing 9-1-1 services by joining NENA in forging a voluntary agreement (“VON-NENA agreement”) to develop technical and operational mechanisms for providing VoIP users with effective access to emergency services. The VON-NENA agreement recognized “the growing potential of VoIP and the universal need for consistent and reliable access to emergency services.”⁵ It also proactively supported solutions which ensure that 9-1-1 calls are routed for emergency response and provide more robust services than today’s wireline 9-1-1 network.

Under the VON-NENA agreement, the signing organizations committed to: (i) provide, within three to six months after the signing of the agreement, 9-1-1 access to the Public Safety Access Point (“PSAP”), for VoIP services which have the functionality and appearance of conventional telephone voice service; (ii) support current NENA and industry efforts towards reaching long-term solutions for delivering E9-1-1 calls to the proper PSAP and providing the PSAP with a callback number, contact information, and caller location; and (iii) educate consumers about capabilities and issues associated with VoIP E9-1-1.

In early July 2005, in the wake of the FCC’s *E9-1-1 Order*, the VON Coalition and NENA jointly organized the VoIP E9-1-1 Solutions Summit to accelerate E9-1-1 solutions for VoIP, expand and focus the dialogue on VoIP E9-1-1 solutions, and identify future goals and

⁴ *E9-1-1 Order*, at ¶ 21.

⁵ See VON-NENA Agreement, available at <http://www.fcc.gov/voip/comments/NENA-VON.doc> (last visited July 31, 2005).

technical solutions for the industry. More recently, on July 29, 2005, the VON Coalition and NENA jointly filed a Petition for Clarification of the *E9-1-1 Order*, based on issues raised at the Solutions Summit.⁶ The Petition seeks clarification of several technical aspects of the new requirements to ensure that interconnected VoIP providers are capable of complying with the *E9-1-1 Order*.

B. The VoIP Industry's E9-1-1 Vision

The VON Coalition believes that VoIP and the transition to IP communications make possible a set of potentially life-saving advances in emergency services. The VoIP industry is focused on achieving faster E9-1-1 solutions for today and working to advance better and more reliable emergency solutions for tomorrow. If done right, VoIP can be the accelerator for modernizing the nation's 9-1-1 network.

To this end, the VON Coalition, NENA, the Next Generation 9-1-1 Forum, the Network Reliability and Interoperability Council ("NRIC"), the Internet Engineering Task Force ("IETF"), and America's other emergency service leaders are actively working toward the development of a feature rich, IP-enabled emergency response system. By migrating to such an IP-based emergency network, 9-1-1 calls could include:

- *Automatic language preferences.* By pre-selecting a user's language preference, an emergency call could be automatically routed to a call taker who speaks the caller's preferred language.
- *Information on a caller's medical status.* If consumers choose to pre-enter vital medical information on a VoIP provider's web page (*e.g.*, whether an Alzheimer patient lives at the registered location; the heart medicine a subscriber uses), call takers and emergency responders could access personal information that could make the difference between life and death.

⁶ See Joint Petition for Clarification of the National Emergency Number Association and the Voice on the Net (VON) Coalition, WC Docket No. 04-36 (July 29, 2005).

- *Maps and other location specific information.* Call takers could access maps of commercial buildings or notes about hazardous on-site chemicals – data that could prove critical to emergency responders.
- *International emergency number compatibility.* New technology standards and architectures could enable global solutions for users who purchase a service in the U.S. but travel internationally (where different emergency dialing sequences are required).⁷

None of these capabilities are possible with today’s 9-1-1 network. But, thanks to VoIP industry efforts, advanced E9-1-1 capabilities could be available in the future.

II. THE COMMISSION GENERALLY SHOULD NOT EXPAND THE SCOPE OR REQUIREMENTS OF THE *E9-1-1 ORDER*

In the *NPRM*, the Commission asks generally whether it should “expand the scope and requirements of the [E9-1-1] Order.”⁸ The VON Coalition strongly believes that the FCC should *not* expand the scope or requirements of the *E9-1-1 Order* at this time. Such regulatory action is not only unnecessary, but also would be counterproductive to the Commission’s goal of “encourag[ing] and facilitat[ing] the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure’ for public safety.”⁹

A. The Imposition of Additional E9-1-1 Obligations on VoIP Providers Is Unnecessary

The Commission only recently established VoIP E9-1-1 requirements – and industry and others have been hard at work on developing and implementing E9-1-1 solutions. Thus, rather than rushing ahead with additional regulations that could potentially stifle innovation and

⁷ For example, Britain uses emergency sequences 112 and 999; Japan uses 119 and 110; in Argentina, users dial 101 for an ambulance or police, but 107 for a fire; in the Yukon Province of Canada, users dial three digits plus 3333 for an ambulance, three digits plus 2222 for a fire, and three digits plus 5555 for police. Future IP-based technologies could help route all 9-1-1 calls to the proper authorities, regardless of location.

⁸ *NPRM*, at ¶ 56.

⁹ *E9-1-1 Order*, at ¶ 4 (citation omitted).

decrease competition, the FCC should wait until the rules have been in effect for a sufficient period of time such that it can effectively assess their impact and then determine whether there is a problem that justifies further regulation. At present, there is no reason to think that the VoIP rules are inadequate. So the VON Coalition believes that the imposition of any additional E9-1-1 obligations on VoIP providers is unnecessary at this time.

1. Industry is Working Diligently Toward the FCC's VoIP E9-1-1 Goal

The *E9-1-1 Order* requires interconnected VoIP providers: (i) by July 29, 2005, to inform new and existing customers of the E9-1-1 capabilities and limitations of the service; (ii) by November 28, 2005, to deliver all 9-1-1 calls to the customer's local emergency call taker as a standard feature of service; and (iii) by November 28, 2005, to provide emergency call takers with the call back number and location information of their customers where the emergency call taker is capable of receiving such information and provide its customers a means of updating their location information.¹⁰

VoIP providers are striving to meet the Commission's customer notification deadline, and the industry is working diligently to meet the ambitious November deadline for providing national E9-1-1 service. Moreover, individual VON Coalition members are working voluntarily to find ways to expand E9-1-1 capabilities beyond the requirements of the *E9-1-1 Order*. Intel Corporation, for example, has been researching ways to triangulate a user's location using Wi-Fi and cellular networks like GSM.¹¹ Similarly, with the help of a U.S. Commerce Department

¹⁰ On July 26, 2005, the Commission issued a public notice stating that it would delay enforcement of the July 29, 2005 notification and acknowledgement deadline until August 30, 2005. See Public Notice, DA 05-2085 (July 26, 2005).

¹¹ Michael Kanellos, "Intel experiments with Wi-Fi as GPS substitute," CNET News.com (July 12, 2005), available at http://news.com.com/Intel+experiments+with+Wi-Fi+as+GPS+substitute/2100-7351_3-5785565.html (last visited August 13, 2005).

grant, Cisco Systems has been working with Columbia University, Texas A&M University, and NENA to develop a prototype of an IP-enabled emergency 9-1-1 system and establish IP-based 9-1-1 workstations in Brazos County and College Station, Texas.¹² Moreover, numerous companies have been engaged in NENA's Next Generation 9-1-1 Forum and the FCC's own efforts through the NRIC to advance a next generation 9-1-1 network.

Such efforts are driving VoIP providers to make the fastest transition to E9-1-1 of any communications medium in history. Indeed, despite 40 years of work, there are 150 counties throughout the country that still do not have E9-1-1 service on their wireline phones. And, despite more than a decade of progress on wireless E9-1-1, emergency responders in only eighteen states can find wireless E9-1-1 callers from a majority of places within the state.¹³ Similarly, despite over a decade of service, satellite phones do not yet support E9-1-1 and were only recently required to provide any emergency calling capability at all.¹⁴ And the FCC did not mandate even basic 9-1-1, choosing instead to permit satellite operators to implement emergency call centers. Thus, even with an ambitious 120-day timetable, the VoIP industry is stepping forward with E9-1-1 solutions that will equal or surpass the wireline and wireless industries.

Given the level of effort and commitment demonstrated by the VoIP industry to develop and implement reliable E9-1-1 solutions, the VON Coalition believes that there is no legitimate basis for the FCC to implement additional E9-1-1 regulations at this time. Indeed, such additional regulations are unnecessary.

¹² W. David Gardner, "Consortium demos its solution for emergency 911 failures," TechWeb News (May 26, 2005), available at <http://www.techweb.com/article/printableArticleSrc.jhtml?articleID=163701473> (last visited August 9, 2005).

¹³ See <http://nena.ddti.net/Reports/report6.asp> (last visited August 15, 2005).

¹⁴ *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340 (2003).

2. Congress is Actively Engaged on the VoIP E9-1-1 Issue

In addition to the FCC, Congress is actively engaged on the VoIP E9-1-1 issue and has already taken important steps to enable VoIP innovation and investment in IP technologies by encouraging the development of Internet services and applications. Congress' generally "hands off" policies (following the lead of the FCC) have been an enormous success – making the U.S. a leader in the development of IP services and providing an influential policy model that has been emulated by countries around the world.

Last year, Congress adopted and the President signed the ENHANCE 911 Act of 2004 which authorized \$250 million per year to upgrade the E9-1-1 network and created the E-911 Implementation Coordination Office to help facilitate improvements in the network.¹⁵

Moreover, Congress is currently considering legislation – The IP-Enabled Voice Communications and Public Safety Act of 2005¹⁶ – which would further accelerate the transition to an IP-enabled 9-1-1 network. The legislation would require the E-911 Implementation Coordination Office to develop a plan for migrating to a national IP-enabled emergency network, which would include identifying the potential benefits of such a migration, barriers that must be overcome, a proposed timetable, costs and potential savings, and specific regulatory and legislative language for achieving the plan. Given this ongoing Congressional activity – the impact of which cannot yet be assessed – the VON Coalition believes that additional FCC regulations would be premature at this time.

¹⁵ See 108 Pub. L. No. 494, 118 Stat. 3986 (2004).

¹⁶ See H. R. 2418, 109th Cong. (2005) and S. 1063, 109th Cong. (2005).

B. The Imposition of Additional E9-1-1 Obligations on VoIP Providers Would Be Counterproductive

The imposition of additional VoIP E9-1-1 regulations at this time is likely to be counterproductive. In the *E9-1-1 Order*, the Commission achieved a delicate balance among the expectations and needs of all parties. Additional regulations would likely upset this balance, and jeopardize the substantial benefits that the VoIP industry makes possible now and is working to make possible in the future – including E9-1-1 advancements.

1. Additional Regulations Would Jeopardize the FCC’s Balanced Approach to VoIP E9-1-1 Regulation

In imposing the obligations in the *E9-1-1 Order*, the Commission stated that its decision reflects a “balanced approach that takes into consideration the expectations of consumers, the need to strengthen Americans’ ability to access public safety in times of crisis, and the needs of entities offering these innovative services.”¹⁷ Taking new action so soon in the wake of the *E9-1-1 Order* could upset the careful balance the FCC has already achieved.

In order to maintain this balanced approach that the FCC so carefully orchestrated in the *E9-1-1 Order*, the VON Coalition believes that the FCC, Congress, the new E-911 Implementation Coordination Office, the industry and innovators developing new 9-1-1 advancements, national standards bodies (like IETF and ATIS), the nation’s 6,000+ PSAPs, local communities, and incumbent network providers must all work together to advance emergency solutions. Such coordinated effort is necessary to successfully implement nationwide VoIP E9-1-1 service. FCC rules alone simply cannot achieve this goal; without allowing time for coordinated action and a national plan to take hold, the imposition of additional FCC regulations could stall, stifle, or even stop the promising E9-1-1 advancements already underway.

¹⁷ *E9-1-1 Order*, at ¶ 5.

2. Additional Regulations Could Have Harmful Effects on the VoIP Industry Nationally and U.S. Competitiveness Globally

The U.S. is in the midst of a great digital transition that will forever change how we work, learn, and communicate. Ubiquitous IP networks are expected to generate an estimated \$500 billion in growth and deliver an estimated 1.2 million new high-wage jobs to the American economy, as well as advance new industries and breakthroughs unimaginable today.¹⁸

Additional burdens on VoIP would not only jeopardize the substantial benefits (*e.g.*, increased competition, consumer cost savings, advanced features, and accelerated broadband deployment)¹⁹ currently made possible by VoIP, but also slow America's digital migration and put the country at a competitive disadvantage. There already are signs that America is falling behind in this transition. The International Telecommunication Union earlier this year found that the United States has dropped to 16th in the world among industrialized countries in broadband penetration.²⁰

The nation must improve its broadband penetration. VoIP can continue to play two very unique and important roles in accelerating the nation's transition to IP networks and global broadband competitiveness – so long as the FCC promotes a competitive environment in which VoIP can flourish:

First, in order to help meet the President's goal of making affordable broadband access available to all Americans by 2007, the VON Coalition believes that the FCC must remove barriers to innovation, thereby enabling VoIP-driven broadband investment. Although

¹⁸ The Brookings Institution estimates that universally available broadband could add \$500 billion to the economy by 2010. A TechNet sponsored study found it could create an additional 1.2 million jobs.

¹⁹ See Comments of the Voice on the Net (VON) Coalition, WC Docket No. 04-36, at 6-15 (May 28, 2004).

²⁰ See <http://www.itu.int/osg/spu/newslog/ITUs+New+Broadband+Statistics+For+1+January+2005.aspx> (last visited August 13, 2005).

consumers across the country are flocking to broadband in order to take advantage of the benefits of VoIP,²¹ the right FCC VoIP policy can further boost broadband demand by putting new tools in the hands of American consumers and businesses to enhance productivity and better manage daily affairs. In fact, VoIP may be the long awaited application needed to drive broadband in both the residential and business markets.

Second, VoIP can continue to play a unique role as the technology that bridges the gap between yesterday's PSTN and tomorrow's IP network. As Metcalfe's law states, the power of any network is increased by the square of the number of people connected to it. Thus, a regulatory framework that encourages both the application that drives adoption of broadband IP networks and the interconnection of those networks with the legacy PSTN can exponentially increase the value of all communications networks. Additional regulatory burdens are likely to slow that progress.

III. THE COMMISSION SHOULD NOT EXPAND THE SCOPE OR REQUIREMENTS OF THE *E9-1-1 ORDER* IN THE SPECIFIC WAYS THE *NPRM* CONTEMPLATES

In this section, the VON Coalition provides responses to some of the FCC's specific inquiries in the *NPRM* regarding expansion of the scope and requirements of the *E9-1-1 Order*. For the general reasons discussed in the prior section, as well as the specific rationales provided in this section, the VON Coalition believes that that the Commission should not expand the scope or requirements of the *E9-1-1 Order* in the specific ways the *NPRM* contemplates.

²¹ See, e.g., Gary Kim, "U.S. VoIP Revenue \$1 Billion in 2005," VoIP Business Weekly (July 25-29, 2005) (reporting that by the end of 2005 there will be four million paying U.S. VoIP subscribers).

A. The FCC Should Not Adopt a June 2006 Automatic Location Information Requirement

The Commission asks whether it should “require all terminal adapters or other equipment used in the provision of interconnected VoIP service sold as of June 1, 2006 to be capable of providing location information automatically, whether embedded in other equipment or sold to customers as a separate device.”²² The VON Coalition supports a voluntary industry process to develop the technological and operational solutions for migrating to a system that could enable automatic location information. The VON Coalition opposes any mandatory requirement for interconnected VoIP providers to provide caller location information automatically to PSAPs or, similarly, for equipment manufacturers to install such a feature in all terminal adapters or other similar equipment by June 1, 2006.

The VON Coalition points out that adopting this type of specific technology mandate would be counter to the Commission’s technology neutrality goals. As the Commission has stated, “consumers are entitled to competition among network providers, application and service providers, and content providers,”²³ and “[c]onsistent regulatory treatment of competing broadband platforms will enable potential investors in broadband network platforms to make market-based, rather than regulation-driven, investment and deployment decisions.”²⁴

Moreover, as technology is increasingly outpacing regulation, such a mandate would be unwise. It would likely stifle the very innovation necessary for achieving new emergency

²² *NPRM*, at ¶ 57.

²³ Public Notice, “FCC Adopts Policy Statement” (August 5, 2005)

²⁴ Public Notice, “FCC Eliminates Mandated Sharing Requirement on Incumbents’ Wireline Broadband Internet Access Services” (August 5, 2005).

solutions.²⁵ For example, in the wireless E9-1-1 proceeding, the FCC mandated tower-based automatic location information but, before the new mandate could be implemented, the industry discovered a newer and more accurate technology (*i.e.*, GPS), making the FCC's requirement inefficient and obsolete.²⁶ Accordingly, the VON Coalition firmly believes that the FCC should not mandate any specific type of location technology(ies), but instead should let the industry and other stakeholders continue to pursue the best E9-1-1 solution(s).

Furthermore, even though the industry is actively pursuing E9-1-1 solutions for VoIP, the June 1, 2006 timetable suggested in the *NPRM* is highly unrealistic. And it is inconsistent with – and years less than – the amount of time the Commission has typically afforded industry to meet sweeping new technology goals. For example, the FCC has afforded more than a decade for wireless providers to implement E9-1-1 technologies and, similarly, for broadcast stations to transition to digital television.

In addition, it is unclear which technology(ies) are appropriate. The types of GPS solutions that have worked for the wireless industry are unlikely to work indoors, where many VoIP phones are used, because of weak satellite signal strength. The industry is already researching other ways to achieve the desired emergency solutions, such as triangulation based on known positions of Wi-Fi access points or cellular networks like GSM.²⁷ Moreover, industry will likely develop new automatic location technologies as Wi-Fi, WiMAX, and other network technologies are deployed nationwide in the near future. It may turn out that no single technology works best, but that it takes multiple coordinated technologies. The industry

²⁵ As discussed above, the industry is hard at work on E9-1-1 solutions for VoIP services.

²⁶ See *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 14 FCC Rcd 17388 (1999).

²⁷ See *supra* notes 11 - 12 and accompanying text.

standards process already underway is looking at how to accommodate such solutions. The FCC should not upset this process.

And, as the Commission makes clear, its present VoIP E9-1-1 requirements apply to interconnected VoIP service providers only – and not to manufacturers of PCs, laptops, or of any internal or external hardware.²⁸ Such a conclusion is eminently reasonable; the FCC has not identified any specific statutory authority by which it is authorized to impose a broad technical requirement on manufacturers, including general computer and laptop manufacturers, producing equipment “used in the provision of interconnected VoIP.”²⁹ And, in light of the recent decision by the U.S. Court of Appeals for the D.C. Circuit in *American Library Association v. FCC*, there are serious questions regarding the authority of the Commission to do so.³⁰

Moreover, any rule that would require VoIP providers to be able to track the precise location of users would raise substantial subscriber privacy concerns and would be fundamentally inconsistent with the statutory mandate of Section 222 of the Communications Act. Recognizing the importance of consumers’ privacy, Congress amended Section 222 of the Communications Act in 1999 specifically to protect the unauthorized disclosure of the location information of a CMRS user.³¹ The FCC itself acknowledged that “the privacy of information

²⁸ *E9-1-1 Order*, at ¶ 1 (“In this Order, we adopt rules *requiring providers of Voice over the Internet Protocol (VoIP) service* to supply enhanced (E911) capabilities to their customers.”) (emphasis added).

²⁹ See *NPRM*, at ¶ 24 n. 77, ¶ 57.

³⁰ 406 F.3d 689, 703 (D.C. Cir. 2005) (Commission does not have general ancillary authority under Title I of the Communications Act to impose technical requirements on any apparatus associated with communications); see also *La. Pub. Serv. Comm’n v. FCC*, 476 U.S. 355 (1986) (a federal agency “literally has no power to act . . . unless and until Congress confers power upon it.”).

³¹ See 47 U.S.C. § 222(f).

concerning consumers' location while using mobile wireless services is critically important.”³²

Users may not want to disclose location information, and unlike customer proprietary network information obtained by telecommunications carriers, there are no statutory safeguards to protect VoIP subscribers, as the Commission has acknowledged.³³ The VON Coalition urges the FCC to consider whether there are any technological impediments to applying the privacy provisions of Section 222 as they apply in the wireline and wireless contexts – to VoIP. The VON Coalition believes that it is technologically possible for consumers to be able to choose whether they want to disclose their location information,³⁴ and that VoIP consumers should have the same privacy rights as wireline and wireless consumers.

B. The FCC Should Not Apply E9-1-1 Obligations to Non-Interconnected or Partially-Interconnected VoIP Service Providers

The Commission asks whether it should “apply [the E9-1-1 obligations] to services that are not fully connected to the PSTN.”³⁵ The VON Coalition opposes the Commission’s tentative conclusion to apply E9-1-1 obligations to VoIP providers that are only partially-interconnected or not at all interconnected to the PSTN. VoIP customers are sophisticated, early adopters of state-of-the-art technology. Such individuals would not reasonably have expectations that

³² *Request by Cellular Telecommunications and Internet Association to Commence Rulemaking to Establish Fair Location Information Practices*, 17 FCC Rcd 14832, at ¶ 1 (2002).

³³ *See NPRM*, at ¶ 62.

³⁴ The VON Coalition believes that it is technologically feasible to calculate the location of a device *locally* (*i.e.*, on the endpoint) and then allow the user to determine whether (s)he wants to share this location information (*i.e.*, transmit the information to the PSAP). For example, automatic location detection (or manual location entry) could occur as part of the start-up process, but it would be left to the user to determine whether (s)he wants to send this information to the PSAP. Such an approach would also allow for innovation at the device/platform level, as different vendors could experiment with different location technologies and different levels of automation for end-user interaction.

³⁵ *NPRM*, at ¶ 58.

partially- or non-interconnected VoIP services would provide traditional 9-1-1 capabilities, and these services are not offered to the public as a replacement for standard telephone services.

In cases where customers can make calls to (but not receive calls from) the PSTN, customers are not provided telephone numbers, making it extremely difficult, if not impossible, to offer E9-1-1.³⁶ In cases where customers can only receive calls from the PSTN, there is no logical reason why a VoIP subscriber would expect to be able to make any outgoing call, much less a 9-1-1 call.³⁷ The FCC should be wary of creating expectations of 9-1-1 access, where none would otherwise exist.

Skype, for example, offers two distinct voice applications that permit subscribers to communicate in limited ways with PSTN users. SkypeOut generally permits subscribers to use a computing device to originate calls to the PSTN for a fee.³⁸ Subscribers who purchase only SkypeOut cannot receive calls from the PSTN. Skype separately offers SkypeIn, an application (currently in beta form) that allows users to receive calls from the PSTN using traditional numbering resources for a fee. The software programs are tailored to meet different subscriber needs and designed to operate independently from each other.

In other cases, such as Free World Dialup (“FWD”), subscribers are not assigned NANPA numbers, but use numbers that only work within the specific network. It is highly unlikely that anyone uses a Skype or FWD application as a replacement for conventional telephone service. Indeed, FWD, SkypeOut, and SkypeIn were developed and are offered and

³⁶ See *infra* note 38.

³⁷ Even if such services are combined by the end user, they are separately offered by the VoIP provider and the subscriber would not reasonable believe that the services are linked or could provide E9-1-1 access.

³⁸ Where a subscriber purchases only SkypeOut, no numbering resources are used, and no ANI can be transmitted. Therefore, compliance with existing E9-1-1 rules is impossible.

marketed separately as advanced software applications that are downloaded, rather than phone services that are purchased as part of a retail consumer transaction. Thus, a subscriber who uses these software applications is unlikely to have an expectation that he or she can place a 9-1-1 call.

In some instances, such services are provided without charge; imposing costly regulatory obligations would cripple the ability for entities to offer those services. Further, the Commission has already concluded that non-interconnected VoIP services, such as Skype and FWD, are unregulated information services, and there is no reason to deviate from that conclusion by taking inconsistent action here.³⁹

Moreover, it follows that market and technological factors, and not regulatory fiat, are best suited to determine when additional mobile or portable devices operating from a single residential VoIP service are offered with full E911 service. For example, if a residential VoIP service provides full E9-1-1 access to the members of the family located at home, there is no additional regulatory imperative to require E9-1-1 to apply to a portable laptop computer connected to that residential VoIP service. Indeed, this is far beyond the scope of what was ordered in the *E9-1-1 Order*, which presumed a single device and terminal adaptor, a single “registered location” for that telephone and terminal adaptor, and an ALI database solution that is, while challenging enough, at least confined to location information of one device. Further, requiring E9-1-1 for all laptops with VoIP capability will not only drive up the costs of such devices, but it may also create affirmative public safety risks or complexities if “registered locations” for a single service are transposed and emergency assistance is sent to the wrong

³⁹ See *In the Matter of Petition for Declaratory Ruling that pulver.com’s Free Work Dialup is Neither Telecommunications Nor a Telecommunications Service*, 19 FCC Rcd 3307 (2004).

location. Of course, even without regulatory mandate, the Commission can be assured that competitive VoIP providers looking for market advantage will introduce emergency features as soon as is economically and technically feasible to meet evolving consumer demands.

C. The FCC Should Not Adopt E9-1-1 Obligations Specific to Wireless VoIP

The Commission asks how “the use of wireless broadband connections such as Wi-Fi or WiMAX impact the applicability of the [recently adopted VoIP] obligations.”⁴⁰ The VON Coalition believes that there should be not be any additional obligations on VoIP providers if their subscribers use a wireless broadband connection. VoIP providers do not control and, in many cases, do not even know which type of broadband connection their subscribers use. Moreover, at the present time, Wi-Fi and WiMAX systems and VoIP equipment are not capable of offering true mobility, only portability. Thus, the CMRS 9-1-1/E9-1-1 rules are not analogous or appropriate. And providers of dual mode VoIP/CMRS services should have the option of choosing on which service they will provide E9-1-1 capabilities to their customers.

D. The FCC Should Not Require Redundancy Requirements or Performance Standards for VoIP E9-1-1 Services

The FCC asks “what performance standards ... the Commission [should] adopt regarding the length of time between when an end user updates Registered Location information and when the service provider takes the action necessary to enable E9-1-1 from that location.”⁴¹ Similarly, the FCC also asks whether “the Commission [should] require VoIP service providers to create redundant systems for providing E911 services.”⁴² The VON Coalition believes that the FCC

⁴⁰ *NPRM*, at ¶ 59.

⁴¹ *NPRM*, at ¶ 59.

⁴² *NPRM*, at ¶ 59.

should not require VoIP providers to adopt performance standards or create redundant systems for providing E9-1-1 services. VoIP is an Internet voice application, and most VoIP providers have no physical communications facilities. Imposing such requirements would drastically increase costs and alter the structure and nature of the VoIP industry, possibly slowing its development.

Moreover, Internet communications are already very resilient and industry standards efforts (*e.g.*, through NENA and NRIC) will ensure that 9-1-1 services will continue to be provided in a highly reliable manner. The Internet, originally designed by the Defense Department, has some inherent advantages over traditional communications systems in an emergency. A decentralized network with multiple paths between any two points, a packet-based communications protocol, and enhanced network capabilities enable the Internet to automatically and efficiently withstand single points of failure.

These network efficiencies were critical on September 11, 2001, prompting the National Academies of Science to find that the Internet held up better than all other communications technologies.⁴³ On that day, 95 percent of cell phone calls placed at 11 AM failed to get through; television stations were knocked off the air; and police and fire department radios failed. Yet, the impact to Internet addressed communications was only modest.⁴⁴ Accordingly, as this example illustrates, there is no need for redundancy requirements or performance standards.

⁴³ National Research Council, “The Internet Under Crisis Conditions: Learning from the Impact of September 11,” available at <http://www.nap.edu/books/0309087023/html/1.html> (last visited August 8, 2005).

⁴⁴ *See id.* at 61-70.

E. The FCC Does Not Need to Adopt Additional Regulations to Ensure That Disabled Persons Can Use VoIP E9-1-1 Services

The FCC asks whether “there [are] any steps the Commission needs to take to ensure that people with disabilities who desire to use interconnected VoIP service obtain access to E911 services.”⁴⁵ The VON Coalition believes that additional regulations to ensure that persons with disabilities can use interconnected VoIP services are premature. Indeed, the industry is already moving forward to ensure that interconnected VoIP services are compatible with TTYs/TDDs capable of interfacing with a standard analog RJ11 telephone jack and that IP-enabled software programs are interoperable with TTYs/TDDs.⁴⁶ Thus, the VoIP industry through voluntary efforts is already serving persons with disabilities.⁴⁷

If the Commission wants to accelerate emergency solutions for people with disabilities, it should permit the industry-led evolution to an IP-enabled emergency network proceed without undue regulation. For example, with an IP-enabled emergency network, the deaf could sign to emergency call takers over a VoIP-enabled video connection, and the blind could text message call takers for help. In fact, when the FCC’s Internet Policy Working Group held its VoIP disability summit in early May 2004, participants noted that VoIP’s ability to integrate voice, video, and data over one network would be especially advantageous for the disabled and particularly in emergencies.

⁴⁵ *NPRM*, at ¶ 63.

⁴⁶ See Cisco Systems, “TTY and TDD Over VoIP: Dispelling the Packet Loss Myth” (May 2004), available at http://www.cisco.com/wwl/regaffairs/images/pdf/Dispelling_the_Packet_Loss_Myth.pdf; <http://www.versiontracker.com/dyn/moreinfo/win/30037>.

⁴⁷ Should the FCC receive comments identifying concerns, it should then put together a task force of interested parties to more fully discuss and address those concerns. Consistent with its policy, the FCC should not legislate in an area where there is no evidence of a problem *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, 18 FCC Rcd 25340, at ¶ 31 (2003) (declining to mandate specific 9-1-1 procedural requirements where satellite providers were already operating with “apparent success”).

At the FCC's disability summit, VON Coalition member T-Mobile described a converged wireless, voice, and data device and its impact on the community. T-Mobile's Sidekick, a color PDA, offers e-mail, text messaging, Web browsing, and voice. Although considered a phone, around 10 percent of Sidekick's users are hearing-impaired.⁴⁸ Technological innovation and the convergence of voice, video, and text over a single network can offer the disabled unprecedented new capabilities – especially when the emergency network becomes IP-enabled and is capable of receiving the type of information that VoIP combined with video and data can offer.

F. The FCC Should Not Impose Additional VoIP E9-1-1 Customer Notice or Reporting Obligations

The Commission asks “whether the Commission should impose additional or more restrictive customer notification requirements relating to E911 on VoIP providers”⁴⁹ or “impose reporting obligations on VoIP service providers other than the compliance letter.”⁵⁰ In the *E9-1-1 Order*, the FCC adopted specific notice requirements for VoIP providers to disclose any limitations concerning their 9-1-1 service. The Commission also required the filing of an initial compliance report. The VON Coalition believes that these initial requirements will more than suffice to inform customers about any limitations of their VoIP 9-1-1 service. Moreover, burdensome, ongoing filing requirements would serve no clear regulatory purpose. Indeed, companies that are not in compliance will have to seek waivers or risk FCC enforcement action.

⁴⁸ Suzanne Robitaille, “Innovation That Leaves No One Behind: As technology advances, companies can allow the disabled to benefit with creative solutions that attract the able-bodied, too,” *Business Week* (May 2004).

⁴⁹ *NPRM*, at ¶ 59.

⁵⁰ *NPRM*, at ¶ 60.

G. States Should Foster PSAP Capabilities Rather Than Administer or Enforce VoIP E9-1-1 Rules

The FCC “seek[s] comment on what role states can and should play to help implement the E911 rules.”⁵¹ In the *Vonage Order*, the Commission was reluctant to subject VoIP to the possibility of 50 different regulatory regimes, and found that certain interconnected VoIP services are interstate in nature and not subject to state regulation.⁵² This rationale should extend to the VoIP E9-1-1 context.⁵³ Indeed, the FCC alone should administer and enforce the new VoIP E9-1-1 rules.

However, states have an important role to play in the transition to an IP-enabled emergency network. In some states, VoIP is hindered in providing E9-1-1 because the local PSAP is not yet capable of providing E9-1-1 for even their wireline customers, and nomadic VoIP users are hindered where the local PSAP has not yet upgraded their facilities to become wireless E9-1-1 compliant.⁵⁴ Also, in some states, there may be PSAPs which are unwilling or unable to receive VoIP E9-1-1 calls because of liability limitations, statutory limitations, or technological limitations.

Thus, states can play an important role in advancing solutions in various ways. They can remove restrictions on the use of the wireless E9-1-1 infrastructure for anything other than wireless E9-1-1 calls. States can provide the estimated 1.5 million Americans that lack wireline

⁵¹ *NPRM*, at ¶ 61.

⁵² See *In the Matter of Vonage Holdings Corporation*, 19 FCC Rcd 22404, at ¶ 37 (2004) (“[I]mposition of 50 or more additional sets of different . . . regulations . . . could severely inhibit the development of [VoIP] services.”).

⁵³ See *id.* (The FCC “cannot, and will not, risk eliminating or hampering this innovative advanced service that facilitates additional consumer choice, spurs technological development and growth of broadband infrastructure, and promotes continued development and use of the Internet.”).

⁵⁴ See Joint Petition for Clarification of the National Emergency Number Association and the Voice on the Net (VON) Coalition, WC Docket No. 04-36 (July 29, 2005).

E9-1-1 with such capabilities and can expand the areas of the U.S. capable of receiving wireless E9-1-1.⁵⁵ States can adopt laws, like New Jersey is considering, which would provide PSAPs and VoIP providers with equivalent liability relief.⁵⁶ Or as an alternative, the Commission should consider preempting state laws to ensure, consistent with the Commission’s ruling in *Vonage*,⁵⁷ that such laws do not establish roadblocks to the Commission’s technology neutrality and competition policies.⁵⁸ Without liability relief, VoIP providers will face costs that other E9-1-1 service providers do not, impairing telecommunications competition.⁵⁹

H. The FCC Should Not Adopt Rules Governing the Payment of 9-1-1 Fees to States

The Commission asks whether it should “take any action to facilitate the states’ ability to collect 9-1-1 fees from interconnected VoIP providers, either directly or indirectly.”⁶⁰ The VON Coalition points out that interconnected VoIP providers are already paying 9-1-1 fees directly to the appropriate administrators or indirectly through their third party service providers.⁶¹ Thus,

⁵⁵ The FCC should use its newly created Federal State VoIP E9-1-1 task force to work with the states and PSAPs to improve the availability of wireline E9-1-1 and wireless E9-1-1, thus increasing the number of areas in America where VoIP users can make E9-1-1 calls.

⁵⁶ A. 4135, 211th Legislature (NJ 2005).

⁵⁷ See *In the Matter of Vonage Holdings Corporation*, 19 FCC Rcd. 22404 (2004) (Sec. 230(b) of the Act “expresses a clear preference for a national policy” to preserve the competitive free market for internet services—a form of field preemption.); see also *BellSouth DSL Declaratory Ruling*, 20 FCC Rcd. 6830 (2005) (preempting state regulations that would impose additional obligations on incumbent LECs inconsistent with federal regulations); *Geier v. American Honda Motor Co.*, 529 U.S. 861 (2000) (state tort laws preempted where they conflict with federal regulatory goals).

⁵⁸ See *supra* note 24 and accompanying text.

⁵⁹ Liability disparity also offends the statutory goals of Section 230 of the Telecommunications Act of 1996 because it imposes costs and legal impediments that may limit the growth of voice-based Internet services. See *In the Matter of Vonage Holdings Corporation*, 19 FCC Rcd. 22404, at ¶ 37 (2004).

⁶⁰ *NPRM*, at ¶ 61.

⁶¹ See *E9-1-1 Order*, at ¶ 57 n. 161.

the FCC does not need to adopt additional regulations that would facilitate the states' ability to collect 9-1-1 fees from interconnected VoIP providers. Moreover, the Commission is likely to find it does not have authority to require an information service provider to pay fees into a state or local fund.⁶²

I. The FCC Should Not Require VoIP Providers to Provide E9-1-1 Service in Areas Where a PSAP Does Not Have a Selective Router

The Commission asks whether it should “impose [its E9-1-1 requirements] on providers of interconnected VoIP service in geographic areas served by PSAPs that are not connected to a Selective Router.”⁶³ Indeed, under current rules, where there is not a selective router, the requirement is to provide 9-1-1 service only. At this point in time, there are 150 counties where the PSAP does not have a selective router. The VON Coalition expects that over time, all PSAPs will have selective routers, such that additional rules would not be required. While the VON Coalition may support Commission action to advance the number of PSAPs capable of receiving either wireline, wireless, or IP-enabled E9-1-1 calls – it believes the Commission may find that it does not have jurisdiction. Rather than regulations, the FCC should work in conjunction with the E-911 Implementation Coordination Office and Congress to accelerate the transition to an IP-enabled 9-1-1 network that eliminates the need for selective routers.

⁶² On a related note, the VON Coalition supports the funding of PSAPs that will promote the evolution to an IP-enabled 9-1-1 system. Until that happens, consumers will not be able to take advantage of the enormous benefits that VoIP can offer to providers of emergency services.

⁶³ *NPRM*, at ¶ 59.

IV. CONCLUSION

Although the volume of VoIP 9-1-1 calls is not expected to surpass two percent of all 9-1-1 calls in the next three years, the VoIP industry understands that a 9-1-1 call may be the most important call a person ever makes. Thus, the VON Coalition is committed to ensuring that access to emergency services is “just a phone (or VoIP) call away.”

While the *NPRM* raises a host of issues, the VON Coalition believes the two most important goals for the FCC to bear in mind when contemplating these issues are: (i) accelerating the transition to an IP-enabled emergency network that can handle VoIP calls natively and is capable of delivering improved emergency response technologies; and (ii) ensuring that Americans can enjoy the full promise and potential of VoIP without rules that could stifle innovation, stall important consumer benefits, slow demand for broadband, or stop voluntary efforts already underway to advance the safety of the nation.

In order to achieve these important goals, the VON Coalition respectfully urges the FCC not to impose additional E9-1-1 obligations on VoIP providers or otherwise expand the scope of its present VoIP E9-1-1 requirements. The VON Coalition looks forward to continuing to work with the Commission on this very important matter.

Respectfully submitted,

By: _____ /s/

Glenn S. Richards
Tony Lin
PILLSBURY WINTHROP SHAW
PITTMAN LLP
2300 N Street, N.W.
Washington, D.C. 20037
(202) 663-8000
Counsel for the VON Coalition

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