

APCO's principal concern in this proceeding is with the impact of VoIP services on E9-1-1 capability, *i.e.*, the selective routing of a 9-1-1 call to the correct PSAP with a call-back number and accurate location information. Absent E9-1-1 capability, emergency responses will be delayed, and PSAP personnel and operations will be strained by the need to divert scarce resources to VoIP calls.

The Commission Should Separate E9-1-1 from Other Issues in the NPRM

As an initial matter, APCO is deeply concerned that the critical public safety issues raised by the rapid deployment of VoIP will be lost within the policy maze created by the *NPRM*. We can appreciate the Commission's desire to address all IP-enabled service issues in a comprehensive fashion, with detailed analyses of wide-ranging technology, policy, and legal questions. However, by the time that the Commission resolves all of the issues in the nearly 100-page *NPRM*, VoIP will have proliferated without any E9-1-1 requirements. That could leave large portions of the public without access to effective and efficient access to emergency response capability, and further strain the limited resources of PSAPs.

Therefore, we urge the Commission to separate the many issues raised in this proceeding, and to give top-priority to adopting targeted regulation to require VoIP providers, or at least those that connect to the Public Switched Telephone Network (PSTN), to offer E9-1-1 capability. Such priority for the E9-1-1 issue in this proceeding is consistent with the Commission's statutory obligation, contained in Section 1 of the

Communications Act of 1934, to promote “the safety of life and property through the use of wire and radio communication.”²

VoIP should be allowed to develop, but with a “light touch” of regulation that includes E9-1-1.

APCO appreciates the need to encourage the development of IP-enabled technologies and the Commission’s desire to avoid unnecessary regulation that could stymie that development. VoIP and other IP-enabled technologies do hold great promise for improving communications for business, consumers, and government (including public safety services). However, VoIP cannot be allowed to proliferate and substitute for wireline telephone service unless it provides full E9-1-1 capability. Otherwise, VoIP would represent a major step *backwards* in the provision of emergency services.

The Commission needs to act now while VoIP is still in its infancy and before it proliferates to a degree that “retrofitting” and “reprogramming” to provide E9-1-1 becomes a major stumbling block. That is what occurred with wireless E9-1-1, and it must not be repeated with VoIP. Indeed, the danger of acting too late is even greater with VoIP, which is likely to spread much faster than did wireless as it does not require construction of entirely new networks or infrastructure.

The Commission must not succumb to the temptation to defer entirely to voluntary standards and guidelines to address the E9-1-1 problem. We support the efforts of some in the VoIP industry to work with the public safety community to identify technical solutions for E9-1-1. However, the Commission must do more than encourage those efforts. It must adopt enforceable regulation to ensure that all VoIP providers (at

² 47 USC §151.

least those that connect to the PSTN) deploy E9-1-1 solutions and work with PSAPs to accomplish rapid implementation. The nascent VoIP industry is attracting a wide assortment of enterprises, many of which recognize the need for E9-1-1, but also others that lack the knowledge, resources, or desire to address E9-1-1 in an effective manner. Regulation is necessary to ensure that *all* relevant providers comply and provide the public with the same access to emergency services.

VoIP, without full E9-1-1 capability, will endanger public safety.

The public has come to expect that their “telephone” will provide immediate access to emergency services by dialing “9-1-1,” that their call will be answered by local personnel who can dispatch first responders to the scene, and that their location and phone number will be provided automatically. The public does not expect any different level of service just because the “telephone” over which the call is made is IP-enabled. From the perspective of the 9-1-1 caller, all telephones are *functionally equivalent* and the expectation is that the level of 9-1-1 service will be the same.

While VoIP can be functionally equivalent to basic wireline telephone service, its level of 9-1-1 service is a far different story. Some VoIP services provide no 9-1-1 access at all, others provide 9-1-1 but no selective routing to PSAPs based upon the actual location of callers, and yet others attempt to route calls, but only to PSAPs’ ten-digit numbers. The result is that 9-1-1 calls can be sent to a PSAP hundreds of miles from the site of the emergency with no ability to dispatch first responders to the scene. A recent example is a VoIP service 9-1-1 call made in Houston, Texas that was routed to a PSAP in Nashville, Tennessee.

VoIP providers' increasing common diversion of "9-1-1" calls to ten-digit numbers as an "interim solution" also poses dangers to the public. Some VoIP providers have sent notices to every PSAP across a wide area informing them that they will soon be receiving emergency calls from VoIP subscribers, and that the calls will be sent to the PSAPs' published ten-digit number. However, in many cases the ten-digit numbers identified by the VoIP provider are incorrect. Moreover, whether, when, and how ten-digit calls are answered at PSAPs varies greatly. Ten-digit numbers at PSAPs are often answered by administrative personnel, not by a trained emergency telecommunicator. In some PSAPs there are times of the day when the ten-digit number is not answered at all or routed into voice-mail with instructions for emergency callers to hang-up and dial 9-1-1. This routing of calls to ten-digit numbers is forcing some PSAPs to consider diverting scarce resources to handle the potential new volume of "9-1-1" calls from VoIP providers.³

Finally, even when a VoIP "9-1-1" call finds its way to the correct PSAP and a trained 9-1-1 telecommunicator, it generally arrives without any call-back number or location information.⁴ The telecommunicator must then devote precious time to obtain that information verbally, assuming that the caller even knows their location and is able to describe it accurately and in a coherent fashion (a problem, for example, if the caller is a child, has a medical emergency, is a traumatized witness, or victim). Emergency personnel sometimes have to be dispatched without accurate or precise location information, delaying the emergency response and often requiring the diversion of

³ Unless and until VoIP is subject to 9-1-1 service fees, these additional costs are borne by traditional telephone customers, or charged against local governments' general funds.

⁴ Call-back numbers are critical in the event of a accidental disconnection and to prevent fraudulent calls.

additional personnel to search for the actual location of the 9-1-1 call. This problem is real and will get worse as VoIP expands and more calls arrive at PSAPs without E9-1-1 information.

These serious issues with VoIP/9-1-1 calls have led some APCO members to suggest that the best course may be for PSAPs not to accept VoIP calls until such time as the calls provide full E9-1-1 capability.⁵ Such views are not made lightly, as PSAP personnel are devoted to the principle of accepting and responding to all calls for assistance to the best of their ability. However, many fear that taking VoIP calls at the present time could disrupt PSAP operations and the ability of public safety agencies to continue responding in an effective and efficient manner to other 9-1-1 calls.

E9-1-1 should be required of VoIP services that are the “functional equivalent” of wireline service and provide interconnection with the PSTN.

There are a plethora of diverse telecommunications products and services that are “IP-enabled,” and even the narrower term “VoIP” encompasses a wide variety of telephone-related technologies. Thus, the Commission, at ¶37, wisely attempts to distinguish between these various services, as not all should be subject to the same level of regulatory scrutiny. From the E9-1-1 perspective, we believe that the most relevant criteria is whether a VoIP service (a) is the “functional equivalent” to traditional telephony; (b) can be “substituted” for traditional telephony; and (c) interconnects with the PSTN and uses the North American Numbering Plan. These are the characteristics of a service that might reasonably be expected to provide access to 9-1-1. Thus, such services must be required to provide E9-1-1 capability to ensure the rapid deployment of

⁵ This might take the form of requiring attempted 9-1-1 calls from non-compliant VOIP providers to result in a “fast busy” or an automatic message informing the caller that the telephone will not connect to 9-1-1.

emergency responders regardless whether the 9-1-1 call is transmitted through traditional telephony or with VoIP.

The Commission, ¶55, also looks at VoIP through the lens of the *E911 Scope Order*,⁶ where it had identified four criteria for determining whether particular services should be subject to E9-1-1 requirements:

- 1) the entity offers real- time, two- way switched voice service, interconnected with the public switched network, either on a stand- alone basis or packaged with other telecommunications services;
- 2) customers using the service or device have a reasonable expectation of access to 911 and enhanced 911 services;
- 3) the service competes with traditional CMRS or wireline local exchange service; and
- 4) it is technically and operationally feasible for the service or device to support E911.

We believe that many VoIP services meet all four criteria. In particular, the increasing transparency of VoIP and traditional telephony to the consumer creates a reasonable expectation that a “9-1-1” call will connect to the proper PSAP and provide necessary location and call-back information. Criteria 4 is also applicable, even though precise methods and procedures for VoIP to support E9-1-1 are still under review. VoIP industry leaders and technologists expressed confidence at the FCC’s recent VoIP Forum that that E9-1-1 can be provided without major hurdles.

Voluntary Consensus is Not Enough

The Commission’s seeks comments regarding the role of voluntary consensus, rather than regulation, in the provision of E9-1-1 through VoIP services. We believe that

⁶ *Report and Order and Second Further Notice of Proposed Rulemaking in CC Docket 94-102*, FCC 03-290 (released December 1, 2003).

joint stakeholder efforts to identify solutions can be invaluable to the Commission as it attempts to address E9-1-1 issues. The Commission should continue to encourage and facilitate such activities. However, the Commission must exercise its responsibility under the Communications Act and take the additional step of adopting reasonable, targeted regulation to ensure universal compliance. The VoIP industry is far too diverse to assume that the good deeds of a few will automatically be adopted by all providers in the marketplace. When public safety is at risk, mere voluntary guidelines are insufficient.

While not addressed in the *NPRM*, we also take this opportunity to address the concept of requiring VoIP providers to inform customers at point-of-sale whether or not the service meets voluntary 9-1-1 requirements.⁷ Such consumer warnings are grossly inadequate to protect public safety. The original VoIP contract disclaimer or package warning label is of no value to somebody desperately seeking emergency assistance. Indeed, the individual purchasing the VoIP service may not be the same person who, months or years later, picks up a telephone device using VoIP service to call 9-1-1. In a residential setting, the person attempting to make the 9-1-1 call could be a child of an injured parent or caretaker, a neighbor unfamiliar with the limitations of the homeowner's VoIP telephone, or even the original purchaser who, in the heat of an emergency, forgets the 9-1-1 disclaimer that they may or may not have read when acquiring the VoIP service. In a business setting, the VoIP/9-1-1 call is likely to be placed by an employee, contractor, or customer who had no role in selecting the non-compliant VoIP service.

⁷ This approach was included in legislation recently introduced by Senator Sununu and Representative Pickering. APCO has written to these and other Members of Congress to express its concerns with the proposal.

The ability to call 9-1-1, with the call routed to the correct PSAP with location and call-back number information, is far too important to leave to voluntary standards and point-of-sale disclaimers.

States must retain discretion to recover the cost of 9-1-1 services from all telephone users, including those connected through VoIP.

PSAP operations are often funded largely through “9-1-1 fees” added to telephone bills. All telephone customers with the ability to connect to 9-1-1, including those connecting through VoIP, should be required to pay their fair share the cost of providing 9-1-1 services. While such fees are beyond the FCC’s jurisdiction, we urge the Commission to refrain from pre-empting states’ from requiring that VoIP customers pay 9-1-1 fees. Otherwise there is a danger that the rapid substitution of VoIP for traditional wireline telephone service will lead to dramatic reductions in PSAP funding.

The FCC needs to consider the international implications of VoIP.

APCO is an international association, with members in 25 countries. Many of our members from outside the United States have expressed concerns about VoIP and its cross-border potential for disrupting emergency telephone number operations.⁸ The Commission needs to take these international factors into consideration in taking appropriate steps to ensure that all telephone services provide VoIP.

The borderless nature of the Internet is such that VoIP service providers could be located anywhere in the world. Regulating “off-shore” providers will thus be difficult, though connection to the PSTN should provide a domestic focal point. Any VoIP

⁸ While 9-1-1 is the universal emergency number in the U.S., other number combinations are used in other parts of the world.

provider, domestic or international, should not be allowed to interconnect to the PSTN unless they provide full E9-1-1 capability.

CONCLUSION

For the reasons set forth above, APCO urges the Commission to adopt appropriate regulatory requirements to ensure that all interconnected VoIP calls provide full E9-1-1 capability.

Respectfully submitted,



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