

**Before the
Federal Communications Commission
Washington, D.C. 20554**

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

**JOINT PETITION FOR CLARIFICATION OF
THE NATIONAL EMERGENCY NUMBER ASSOCIATION AND
THE VOICE ON THE NET (VON) COALITION**

The National Emergency Number Association (“NENA”)¹ and The Voice on the Net (VON) Coalition (“VON Coalition”),² by their attorneys and pursuant to Section 1.429 of the Commission’s rules, 47 C.F.R. § 1.429, hereby jointly petition the Commission for clarification of the rules adopted in the above-captioned proceeding for E9-1-1 Requirements for IP-Enabled Service Providers. *IP-Enabled Services; E911 Requirements for IP Enable Service Providers*, WC Docket No. 04-36; WC Docket No. 05-196, First Report and Order and Notice of Proposed

¹ NENA's mission is to foster the technological advancement, availability, and implementation of a universal emergency telephone number system. In carrying out its mission, NENA promotes research, planning, training and education. The protection of human life, the preservation of property and the maintenance of general community security are among NENA's objectives. With more than 7,000 members in 46 chapters across the U.S. and Canada, NENA serves as “The Voice of 9-1-1” through policy advocacy, the establishment of national standards, certification and testing programs, and a wide variety of educational offerings. More information can be obtained at <http://www.nena.org>.

² The VON Coalition consists of companies that are developing and offering voice products and services for use on the Internet and IP networks, including Acceris Communications, Accessline Communications, AT&T, BMX, BT Americas, CallSmart, Convedia, 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. Largely through the efforts of VON Coalition members, packet-switched voice services are emerging as an exciting new technology benefiting consumers throughout the world. More information about the VON Coalition can be obtained at <http://www.von.org>.

Rulemaking, 20 FCC Rcd 10245 (2005) (“*Order*”). The *Order* required Interconnected VoIP providers to (1) deliver all 9-1-1 calls to the customer’s local emergency call taker as a standard feature of the service; (2) 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; and (3) inform new and existing customers of the E9-1-1 capabilities and limitations of the service. *Id.* Additionally, the *Order* reiterated the requirement that incumbent LECs provide access to their E9-1-1 networks to any requesting telecommunications carrier, including access to trunks, selective routers, and E9-1-1 databases. *Id.* ¶ 38.

As the Commission is aware, NENA and the VON Coalition have been working together since 2003 to find solutions to issues raised by VoIP E9-1-1. *Order* ¶ 21. The landmark VON-NENA agreement was the first widespread public acknowledgement of the need for VoIP service providers to offer 9-1-1 dialing capabilities. This relationship has continued, with NENA and the VON Coalition working diligently and expeditiously to implement the requirements of the *Order*. Most recently, on July 7, 2005, NENA and the VON Coalition jointly organized the VoIP E9-1-1 Solution Summit (“Solutions Summit”) to expand and focus the dialogue on VoIP and E9-1-1, and to identify both action items and any need for interpretation or clarification of the *Order*. Commissioner Abernathy and several members of the FCC staff attended this meeting, which included representatives from the VoIP provider community, E9-1-1 system service providers, Congressional staff, and other groups involved in this national effort. Questions and issues that arose out of that Solutions Summit comprise the body of this Petition.

In addition to the efforts already undertaken, NENA and the VON Coalition believe that the filing of this Petition is another important step necessary to further the Commission’s public

policy goals. Specifically, as discussed herein, several fact-specific aspects of the *Order* require further clarification by the Commission so that consumers can receive the most effective E9-1-1 service from VoIP providers. NENA and the VON Coalition believe that the resolution of these issues by the Commission will accelerate deployment of this important service to the public.

NENA and the VON Coalition express their full and complete support of the Commission's efforts to accelerate VoIP providers' deployment of Interconnected E9-1-1 services. This Petition merely seeks clarification of several technical and conforming aspects of the new requirements to ensure that Interconnected VoIP providers are capable of complying with the *Order* as the Commission intended. Overall, NENA and the VON Coalition wholly agree with the Commission that the *Order* 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." *Order* ¶ 5. Importantly, this Petition does not seek reconsideration of the fundamental substantive findings and requirements of the *Order*.

Issues for Clarification

PSAP Inability to Receive Automatic Location Information Data

The Order requires Interconnected VoIP providers to route all 9-1-1 calls, including a call back number ("Automatic Number Identification" or "ANI") and the user's registered location ("Automatic Location Information" or "ALI"), through the dedicated wireline E9-1-1 network, to the PSAP that serves the caller's registered location. *Order* ¶ 37. This obligation is qualified to the extent that the PSAP is unable to utilize the data, such as ALI or ANI, associated with those requirements. In the case where the PSAP cannot utilize the data, the interconnected VoIP provider still must transmit the 9-1-1 call to the appropriate PSAP via the wireline E9-1-1 network. *Order* ¶ 42.

In the limited cases where an emergency call is being delivered using a non-native telephone number, certain PSAPs may not be able to receive the ALI because they do not have access to a dynamic data update capability necessary to process a dynamic pseudo-ANI. NENA and the VON Coalition understand paragraph 42 of the *Order* to mean that an Interconnected VoIP provider would not be obligated to provide ALI data in such instances.

For true fixed VoIP subscribers, ALI is always required for any subscriber in a location supported by PSAPs with E9-1-1 ALI capability. When the subscriber is using non-native telephone numbers, pANI and dynamic data update would be required to support ALI delivery. For non-native/nomadic VoIP providers, two conditions may affect the interpretation of when ALI support is required. First, if the PSAP adds dynamic data update capability, then an Interconnected VoIP provider is required to support ALI. Second, if there is a change in a subscriber's location from a PSAP that does not have dynamic data update capability to a location where the PSAP does have dynamic data update capability, supporting pANI and ALI, then an Interconnected VoIP provider is required to provide ALI data. In either case, the requirement for ALI can change overnight. This suggests that the VoIP provider must always be prepared to support ALI provision to the PSAP.

Given that thousands of PSAPs are in the process of updating their facilities in order to dynamically process location information for non-native wireless telephone numbers and thus may not yet have dynamic update capabilities, this is an important issue for Interconnected VoIP providers delivering emergency calls for non-native VoIP telephone numbers. In the example of a non-native telephone number and a PSAP that does not have dynamic data update capability, it is technically not possible for the caller to have true E9-1-1. NENA and the VON Coalition stress that Interconnected VoIP providers may still provide valuable public safety services, even

in regions of the country without dynamic data update links. For example, in such regions, an Interconnected VoIP provider that utilizes a local NPA-NXX would deliver E9-1-1. In cases where ALI is supported for fixed subscribers but not for non-native/nomadic subscribers because of a lack of dynamic data update infrastructure, NENA and the VON Coalition ask for clarification as to the level of 9-1-1 service that a VoIP provider must provide to non-native/nomadic subscribers. NENA and the VON Coalition respectfully suggests that for non-native telephone numbers, routing to the appropriate PSAP meets the Commission's obligations where the PSAP is not yet capable of processing the dynamic data necessary for delivering E9-1-1.

Address Validation

Ensuring that the PSAP is provided an accurate and unambiguous location of an emergency is critical to the functioning of the E9-1-1 system. Public safety utilizes an addressing validation method called the Master Street Address Guide (MSAG). For the E9-1-1 system to work properly from end to end, any address registered by the subscriber must be validated against the MSAG, an Emergency Services Number (ESN) must be identified for routing and the valid MSAG address must be transmitted to the PSAP. NENA and the VON Coalition ask that the Commission clarify the *Order* by specifying that MSAG address validation is required. Additionally, in order for VoIP Service Providers to meet the requirements of the *Order*, they, or their third party providers, must have access to the MSAG data. NENA and the VON Coalition believe that it is thus critical that VoIP providers have access to MSAG data, and the Commission should err on the side of public safety by clarifying that such access is required.

Ability to Access Selective Router Via the PSTN

Some Selective Routers across the country may not have the capacity, or be readily expandable, to terminate the additional trunk quantities that may become necessary as Interconnected VoIP providers begin providing E9-1-1 service pursuant to the *Order*. Older or smaller Selective Routers operated by smaller telecommunications providers or government agencies are likely to lack such capacity. Based on the aggressive timeline of the *Order*, in certain instances, direct trunking may not be able to be installed before the November 28 deadline. In such cases, there is an interim solution to address this issue within the 120 day timetable proposed by the *Order*. Specifically, technology exists to permit routable, non-dialable access to Selective Routers via a Public Switch Telephone Network (“PSTN”) access method.³ Routable and non-dialable PSTN numbers providing access to the SR are accessible only through PSTN network interconnection, limited to 9-1-1 use, and cannot be accessed by direct dialing the number. This method allows traffic to be presented to most types of Selective

³ This PSTN solution requires the assignment and termination of a local exchange telephone number on specific selective routers (SR) that will enable termination of VoIP E9-1-1 calls routed over the PSTN. By placing this number in the called party number field of an SS7 message from the VoIP gateway, the specific selective router may be accessed via the PSTN and E9-1-1 processing may occur. To enable E9-1-1 processing to occur on calls terminated to the SR over the PSTN, it will be necessary for the ILEC to perform unique translations on the PSTN number assigned for emergency call routing. The required translations are defined in translation documents for the Lucent 5ESS and the Nortel DMS 100/200, which are primarily used for 9-1-1 selective routing purposes throughout the United States. Similar translations and related access arrangements have already been tested elsewhere, including a recent field trial in King County, Washington on a DMS.

These unique translations enable replacement of the PSTN number as the called party number with “9-1-1”, before processing the call through the 9-1-1 SR application. The calling party number field is populated with an Emergency Service Query Key (ESQK) when passing the emergency call through the PSTN. The translations permit the emergency call to be sent from the local exchange side of the switch to the 9-1-1 partition of the switch, so that a selective routing database query may be invoked using the ESQK that was delivered in the original call set up message. *See* Letter to FCC Secretary from James R. Hobson on behalf of NENA, May 11, 2005, WC Docket 04-36, with Exhibit and Appendix.

Routers via the PSTN for conversion to native 9-1-1 traffic, which is then delivered to the PSAP within the existing 9-1-1 framework. The PSTN access method in some cases may be implemented more quickly than a solution that requires direct trunking to the SR. PSTN access is viewed as one possible mechanism to assist with the transition, and the basic technology has been successfully demonstrated in several trials around the country. This limited-duration solution will permit 9-1-1 calls from VoIP subscribers to be routed directly to the PSAP serving their registered location and fully complies with the *Order*'s requirements including ALI.

In the *Order*, the Commission reiterated that LECs were required to provide access to 9-1-1 databases and interconnection to 9-1-1 facilities and explicitly noted that “[w]e expect that this include *all* the elements *necessary* for telecommunications carriers to provide 9-1-1/E9-1-1 solutions that are consistent with the requirements of this Order . . .” *Order* ¶ 38 (emphasis added). Ensuring that Interconnected VoIP providers can obtain universal access to the 9-1-1 network using all possible means serves the important public policy goals of increasing access to public safety services and satisfying consumer expectations. To be clear, NENA and the VON Coalition recognize routable, non-dialable PSTN access as an interim solution. Expedited access will help ensure that all areas of the country, including the most rural and remote, can continue to benefit from life saving VoIP E9-1-1 solutions. In light of these facts, the Commission should clarify that as an interim solution, Interconnected VoIP providers are permitted to access the Selective Router via the PSTN. When a VoIP provider wishes to gain access to the Selective Router via the PSTN it will be necessary for the VoIP Provider to work closely with PSAPs and E9-1-1 System Service Providers in doing so.

Specifically, we request that the Commission allow as an interim solution PSTN access to the Selective Router. PSTN access should be limited to 12 months from implementation of the

PSTN routing solution, after which time direct trunk access or Emergency Service Gateway (ESG) access to the Selective Router must be made available. In addition, PSTN access must be limited to routable and non-dialable numbers.

Automatically Obtained Location Information As “Registered Location”

The Commission should clarify the statement that “Nothing in these rules, however, prevents an interconnected VoIP provider from automatically obtaining an accurate Registered Location if it is capable of doing so.” *Order* n.146. Although Note 146’s language appears clear, it is contradicted by the text preceding Note 148 that states: “The most recent location provided to an interconnected VoIP provider by a customer is the ‘Registered Location.’” *Order* ¶ 46. As Note 146 appears to recognize, some VoIP providers, such as those utilizing converged wireless,⁴ can automatically obtain a consumer’s location. This automatic location information may be more up to date than the “most recent location provided . . . by a customer.” Accordingly, for converged wireless NENA and the VON Coalition ask the Commission to clarify that it is permissible to rely on accurate automatic location information as the “Registered Location” for purposes of the Commission’s rules.⁵

Limiting the Location From Which Service Can Be Used By Contract⁶

The VON Coalition requests that the Commission clarify that when the express terms of consumer’s contract with a VoIP provider only allow the consumer to utilize that service from a

⁴ For example, this would be the case where VoIP over Wi-Fi is offered together on a CMRS phone by the same provider. In one case, a company is planning to use the automatic location information it uses for wireless E9-1-1 for VoIP.

⁵ NENA and the VON Coalition recognize that the issue of automatically obtained address information is the subject of the Notice of Proposed Rule Making in this proceeding. Accordingly, clarification is sought for the interim period during the pendency of that rule making.

⁶ The following issue was raised at the Solutions Summit and thus is included in this joint filing; however, NENA does not take a position on this issue.

single location, the provider has no obligation to provide E9-1-1 service at any other location. Stated differently, the consumer would be contractually prohibited from using the VoIP service from anywhere other than the single, base location. The consumer essentially would have a single registered location and all 9-1-1 calls from that registered location would be delivered pursuant to the *Order's* requirements.

The VON Coalition anticipates that such contractual limits will be utilized in two scenarios. The first situation involves enterprise services that restrict employees use of the CPE to the work location. As is the case currently with traditional PBX phones, there is no consumer expectation that such phones can be utilized outside the office for 9-1-1 or other calls. The second situation involves local or regional Interconnected VoIP providers that would limit E9-1-1 service to a particular locality and region. In this second example, the local or regional VoIP provider would, at least initially, deploy E9-1-1 service to their particular locality or region before allocating resources to provide such service nationally. Users would have E9-1-1 service within that locality or region, but not outside the locality or region. In both cases, the enterprise customer or the local or regional VoIP service provider would of course comply with the *Order's* notification and labeling requirements. Indeed, the express contract provision essentially would be an additional notification or warning to the consumer.

Allowing Interconnected VoIP providers to include contractual limitations in the aforementioned circumstances would support public safety by limiting the use of the VoIP service to the exact location where E9-1-1 is available. Accordingly, the VON Coalition asks that that the Commission clarify that a VoIP service provider offering service in this manner (1) is not providing a service “that can be utilized from more than one physical location,” *Order* ¶ 46; (2) need not provide a consumer with a way to change or update their registered location; and

(3) does not need to provide E-9-1-1 to that consumer/employee to any physical location other than the single registered location specified by the contract.

Testing and Trials of Service⁷

To test new service offerings, Interconnected VoIP providers may offer their services for no fee on a limited time, trial basis without E911/911 capabilities. This serves the important function of testing a new service on a limited basis to ensure its reliability and dependability. VoIP providers offering service on a trial basis would explicitly instruct customers not to disconnect their existing wireline service during the trial period and would notify trial users of the 9-1-1 limitations of the temporary service. In addition, the VoIP provider would provide warning labels stating the CPE was incapable of placing a call to 9-1-1. As the individuals involved in the test would retain their existing wireline service, these trial users would maintain the ability to access public safety through 9-1-1 during the trial period. If the trial user chose to purchase service from the Interconnected VoIP provider, or if the Interconnected VoIP provider chose to roll out the service on a more widely available, commercial basis, the Interconnected VoIP provider would necessarily need to comply with the Commission's rules.

A fully tested VoIP service is more likely to be reliable and dependable in the event of an emergency. The VON Coalition urges the Commission to ensure that VoIP providers can continue to develop robust, tested services. As there will be no loss of the ability to access public safety and no harm to user expectations, the VON Coalition asks the Commission to clarify that the *Order* does not apply to free Interconnected VoIP services offered as part of a test or trial.

⁷ The following issue was raised at the Solutions Summit and thus is included in this joint filing; however, NENA does not take a position on this issue.

Conclusion

NENA and the VON Coalition reiterate their support of the fundamental principles of the *Order* and respectfully request clarification of the *Order* with regard to the specific issues discussed herein.

Respectfully submitted,

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