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April 21, 2005

Ms. Marlene Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: Docket 04-36, ex parte communication  
pursuant to Section 1.1206 of the Rules

Dear Mrs. Dortch:

The National Emergency Number Association (“NENA”), Greater Harris County 9-1-1 and Tarrant County 9-1-1 hereby submit in the captioned proceeding a follow-up to their ex parte communication of April 15, 2005, reflecting a discussion on April 14<sup>th</sup> with WCB and OET staff of VOIP and VOI access to E9-1-1.

Please direct any questions to the undersigned.

Sincerely,

James R. Hobson

cc: Thomas Navin, Julie Veach, Christi Shewman

RECOMMENDATIONS OF NENA, GREATER HARRIS  
COUNTY AND TARRANT COUNTY  
ON VOIP/VOI AND ACCESS TO E9-1-1

**Implementation Period** A preferred sequence of events to accomplish reasonable and realistic timeframes would be:

- Rapid formation of a multi-party national task group, which could be lead by NENA, to identify factors and clarify implementation approach;
- Action to enable a fast track approach with NARUC members, and with critical corporate executive levels; Specific report to the FCC on above, with recommendations, a national project plan, and scheduling objectives;
- Work on the project plan, which may require identification of a neutral project manager, funded by contributions from the affected parties, such as NeuStar; and
- Periodic reports on progress (at least every two months).

**Issue:** The need to generate “immediate” capabilities for “Voice over Internet” (VOI) providers and certain VoIP providers to access current E9-1-1 systems and provide primary features of Enhanced 9-1-1 emergency call routing, subscriber call back number, and ALI. This access should be direct, that is, not through an intermediate entity. This is a near-term need for both 9-1-1 call-originating providers utilizing IP, and for Public Safety.

**Consideration:** Virtually all fixed application VoIP providers, typically cable service based, are already connecting to E9-1-1 through their -- or a vendor’s -- CLEC or CLEC-like connectivity.

### **Pre-Migratory Solutions**

Prior to the availability of Emergency Service Gateways, which are expected to be a core part of the Migratory (I2) design developed by NENA, for access to E9-1-1 Selective Routing switches, a combination of the options below may be appropriate, depending on circumstances and location of implementation.

Direct Trunking. For instance, in a localized case, such as NYC, direct trunking from VoI provider equipment to Selective Routers may be the best choice. There is no guarantee that VoI equipment will be localized, across all potential VoI providers, of course.

Other Solutions. In more dispersed cases, other methods may be viewed as a better interim choice. Realistic timeframes for VoI providers and other parties to provide for the

transmission and delivery of 9-1-1 calls and related data into E9-1-1 systems and on to the PSAPs are dependent on:

- technical and logistical factors associated with the various interconnection options, and
- whether the subscriber is using the service in a fixed location (including through a fixed base WiFi service), or in a nomadic fashion, and
- whether the subscriber's telephone number is being used in that number's assigned NPA and rate center, or in a 'foreign' NPA and rate center.

We believe that preparation for, and implementation of options can be accomplished quickly. The means to accomplish a fast tracked process for VoI/VoIP direct access to E9-1-1 systems depend, at minimum, on the cooperative priority efforts of the following parties:

- FCC
- NARUC and other state-level authorities
- PSTN network support services providers, such as Telcordia (where applicable)
- Executive levels of ILECs acting as E9-1-1 system service providers
- VON Coalition
- Pilot communities with experience in fast-tracked First Office Applications (FOA's)
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The timeframes within which a given option should be accomplished nationally are necessarily longer than those through which individual local cases can be put into place.

The election of one option versus another is necessarily a balance between availability of E9-1-1 service, and the preference for the most dependable methods to support public safety.

Identified options for VoI service providers and IP based Enterprise service providers:

1. Utilize CLEC connectivity offerings, which are direct trunked or direct networked (though CLEC IP networks) between the VoI provider gateway and the CLEC interconnection switches, and provide data base update channels through the CLEC E9-1-1 data processing.
2. SR-related gateways to provide access via Internet or 'private IP network' connectivity to the SR gateways, with one of various optional data base transfer methods.
3. Literal direct trunking from the VoI provider gateway to the E9-1-1 Selective Router, with one of various optional data base transfer methods. This choice has limited applicability, due to trunking cost factors
4. Routable but non-dialable PSTN access to SRs, to allow more secure delivery using the PSTN infrastructure, with essential data items, with one of various optional data base transfer methods.

5. Open PSTN access numbers on the SRs to allow true PSTN delivery of calls and essential data items (note that this option could, in most cases, be replaced by option 4 above),, with one of various optional data base transfer methods.
- NENA believes that open PSTN access numbers could be a problematic choice, due to easily identifiable weaknesses in call delivery reliability. These include potential for random call blockage at various points in the PSTN, driven by conditions unrelated to 9-1-1 traffic. Additional problems: a lack of backup safeguards, and the potential for negative impacts on PSAP calltaking and operations, such as false 9-1-1 calls from local subscribers..

These options are based on considerations of effectiveness, timeliness, and dependability of service. We must do all we can to safeguard against choosing expediency over reliability, leading to a decline of backup methods, dependability and integrity for E9-1-1 service.

An example – If use of routable but non-dialable numbers requires a couple of front-end arrangements, such as use of the Local Exchange Routing Guide, and this can be accomplished in a reasonable timeframe, and that choice provides a meaningfully more secure and safeguarded option, with better PSAP operational considerations, then that needs to be seriously considered.

Related issues:

- A. Performance parameters
  - Timeliness of user location update to ALI
  - Master Street Address Guide (MSAG) validation<sup>1</sup>
  - default call handling
  - alternate call path use
- B. Limits on use of interim methods, in the interest of moving rapidly to more robust and dependable interface methods that approach the established levels of reliability and dependability of E9-1-1 services
  - for temporary direct access methods
  - propose a requirement that use of 10-digit access to PSAPs, where permitted, be only to designated emergency numbers staffed 24x7
- C. Ways to pursue/encourage better methods of interconnection, during the implementation of interim methods (given that human and business nature is to ease the immediate problem, but wait until sufficient pain exists to move on to known better methods)

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<sup>1</sup> Data base vendors are beginning to offer dynamic crosschecking for subscriber provided addresses and validity against the Master Street Address Guides.

- D. Identification and establishment of needed backup capabilities when foreseeable operational conditions occur.

Example: when calls are sent to a default PSAP, each PSAP must have immediate access to contact information for other PSAPs (for instance, all PSAPs must be aware of and have access to the PSAP registry, and the content of the PSAP registry must be highly accurate)

- E. It is essential that the effective data update options be clearly described (**no faxes!**), and parameters such as speed of update for nomadic users that provide a change of location be identified.

Example: Subscriber location data updates should be active in the E9-1-1 data bases no later than 2 hours after the subscriber has identified their location to their service provider. The service provider should clearly identify to their subscribers that they should provide their literal service address, in the form of street number, full street name, and community name (not a postal address). If the submitted address information does not MSAG-validate when processed for E9-1-1, notification of such should be provided to the subscriber's service provider within one hour, and contact to the subscriber, as necessary, for clarification should happen within one hour on a business day. When updated information is available, the above timeframes should be repeated.

- F. Consumer Protection statements, as to labeling and notification of the true capabilities and limitations of VoI services and E9-1-1