

pANI  
Interim Assignment  
Guidelines  
for ESQK

Prepared by the pANI IMG  
for the NANC

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## **Preface**

On October 5, 1995, the Federal Communications Commission (FCC) established the North American Numbering Council (NANC), by filing its charter with Congress, to provide advice and recommendations to the FCC and other governments (including Canada and Caribbean countries) on numbering issues.

Since its inception, the Council has provided the Commission with critically important recommendations regarding numbering issues. These recommendations have addressed a myriad of issues, including wireline/wireless integration for local number portability, abbreviated dialing arrangements, the neutrality of toll free database administration, the feasibility of local number portability for 500/900 numbers, methods for optimizing the use of numbering resources, the assignment of Feature Group D Carrier Identification Numbers to switch-less resellers, and technical specifications for a National Pooling Administrator and the North American Numbering Plan Administrator.

Recently the Council has been reviewing the issue of integrating the numbering resource needs of IP enabled service providers, commonly referred to as Voice over Internet Protocol (VoIP), into the existing numbering resource rules and regulations. The council has recently provided recommendations to the FCC on VoIP Service Providers' Access Requirements for NANP Resource Assignments.

On June 3, 2005 the FCC issued the First Report and Order under FCC docket 05-196 that requires VoIP providers to supply enhanced 9-1-1 (E9-1-1) service capabilities to their customers. When evaluating the access of VoIP users to Public Service Answering Points (PSAPs) several parallels to the access of wireless users to PSAPs can be seen; primarily the users can be nomadic and the telephone number assigned to the user may be foreign to the PSAP the call should be directed to. The wireless industry has traditionally addressed these issues through the use of pseudo ANIs (pANI) to establish access for a nomadic user with a foreign telephone number to the correct PSAP. It is anticipated that VoIP will use a similar methodology to provide VoIP user's access to PSAPs.

On July 25, 2005 the Alliance for Telecommunications Industry Solutions (ATIS) Emergency Service Interconnection Forum (ESIF) submitted to the industry and to NANC a set of "Routing Number Authority (RNA) for pANIs Used for Routing Emergency Calls -- pANI Assignment Guidelines and Procedures"<sup>1</sup>. On August 5, 2005 the NANC Future of Numbering Working Group established the pANI Issue Management Group (IMG) to address the request by ESIF and provide a recommendation to NANC.

The IMG concurs with the basic recommendations of the ESIF to establish an Interim 9-1-1 Routing Numbering Administrator (Interim 9-1-1 RNA) to administer pANI numbering resources and envisions this to be a two stage process.

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<sup>1</sup> © 2005 by Alliance for Telecommunications Industry Solutions) created by the Emergency Services Interconnection Forum (ESIF).

Stage I consists of this document (which incorporates concepts and information from the ESIF document and uses it along with ATIS Industry Numbering Committee (INC) document templates) to provide interim guidelines for the issuance of resources from the North American Numbering Plan (NANP) to enable VoIP services providers to comply with the requirements of FCC Order 05-196.

Stage II will be the development of complete guidelines and administrative procedures by INC, in cooperation with the ESIF, for the use of pANIs in all modes of communication.

The interim guidelines will apply to the Interim 9-1-1 RNA and any entities that seek to obtain numbers from the Interim 9-1-1 RNA until such time as the INC in cooperation with the ESIF can develop and publish complete guidelines and administrative procedures concerning pANIs.

NANC members include representatives from local exchange carriers (LECs), inter-exchange carriers, wireless providers, manufacturers, state regulators, VoIP providers, consumer groups, and telecommunications associations.

## **1 Disclaimer and Limitation of Liability**

The information provided in this document is directed solely to professionals who have the appropriate degree of experience to understand and interpret its contents in accordance with generally accepted engineering or other professional standards and applicable regulations. No recommendation as to products or vendors is made or should be implied.

## **2 Purpose and Scope of This Document**

In an effort separate from this IMG, the ESIF, a technical committee of ATIS, has been evaluating the need to standardize the specific numbers used in the implementation of pANIs, specifically Emergency Service Query Keys (ESQKs) for use during VoIP 9-1-1 calls. The purpose of this document is to define the interim guidelines that shall be used by any entity that is assigning ESQKs for VoIP. The duration of this interim period shall be decided separately by NANC.

ESIF has recommended<sup>2</sup>, and the INC has concurred<sup>3</sup> that ESQKs

- Should be in the format of NPA-NXX-XXXX and that they should be from the number sets of NPA-211-XXXX and NPA-511-XXXX if the NPA-211-XXXX is exhausted.  
and

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<sup>2</sup> ESIF Issue 25 on the Use of Pooled or Ported Numbers as ESRKs

<sup>3</sup> INC Issue 429 Non-Dialable ESRDs or ESRKs

- Should be from the pools of NPA's that are valid for the Selective Router they will be used for.

These guidelines recommend that ESQKs (pANIs utilized for VoIP) should be from the pools of NPA-211-XXXX or NPA-511-XXXX with 211 being utilized before 511.

This document specifies interim guidelines developed with ESIF for the assignment of ESQK to those Eligible Users complying with the FCC order requiring VoIP customers to have access to enhanced 9-1-1 (E9-1-1). The designated interim ESQK Numbering Administrator (referred to as "Interim 9-1-1 RNA").

These guidelines apply only to the assignment of ESQKs within geographic numbering plan areas (NPAs) under the jurisdiction of the FCC. This does not preclude a future effort to address non-geographic NPAs in the same guidelines. ESQKs are assigned for use at a Selective Router for which the VoIP Service Provider (VSP) has approval from the 9-1-1 Governing Authority<sup>4</sup> to route E9-1-1 traffic for termination to a PSAP. While the ultimate delivery of any call to a PSAP must be based upon the geographical location of the originating caller, by necessity the association of the geographical location of the originating telephone number and the ESQK is typically made at an Emergency Routing Data Base (ERDB).

In areas where E9-1-1 System Service Providers (E9-1-1 SSPs)<sup>5</sup> had performed this function prior to the establishment of the Interim 9-1-1 RNA, that role may continue until such time as a permanent 9-1-1 RNA is determined. In developing these guidelines, ESIF and the pANI IMG foresee that these entities should only exist during the transition period until a permanent 9-1-1 RNA is established.

### **3 Assumptions and Constraints**

The development of these guidelines includes the following assumptions and constraints:

- 3.1 pANIs (and specific to these guidelines, ESQKs) in the format NPA-NXX-XXXX are by definition<sup>6</sup> in the format of a Central Office code and are therefore administered by the North American Numbering Plan Administrator<sup>7</sup> under Guidelines developed by the INC<sup>8</sup>.
- 3.2 In Stage II the NXX-211-XXXX and NXX-511-XXXX should be identified in 47 C.F.R. § 52.13.(d) as a unique sub-set of NANP resources known as pANIs.

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<sup>4</sup> The term "9-1-1 Governing Authority" means "an entity designated under state law or regulation to have decision-making and oversight responsibilities for a 9-1-1 Emergency Number System for one or more PSAPs."

<sup>5</sup> Generally speaking, an E9-1-1 SSP is in the majority of cases an ILEC but there are other entities that perform that function.

<sup>6</sup> 47C.F.R. § 52.7(c)

<sup>7</sup> 47C.F.R. § 52.15(a)

<sup>8</sup> 47C.F.R. § 52.15(d)

- 3.3 Although pANIs are believed to be a North American Numbering Plan resource the existing requirements of “47 C.F.R. § 52 Numbering” do not apply unless specifically indicated in these interim guidelines. The specific sections of 47 C.F.R. § 52 that should apply to pANIs will be determined in Stage II.
- 3.4 These interim guidelines are for use in cooperation with various North American Numbering Plan numbering guidelines developed by the INC and the recommendations of ESIF and NANC.
- 3.5 The Interim 9-1-1 RNA will work with other entities administering ESQKs to transition administrative functions to the Interim 9-1-1 RNA according to a mutually agreeable timetable for transition.
- 3.6 ESQK numbering resources shall be assigned to permit the most effective and efficient use of a finite numbering resource in order to prevent premature exhaust. Efficient resource management and number conservation are necessary due to the industry impacts of expanding the numbering resource.
- 3.7 If at any point the FCC rules require regulatory certification, the applicant must be able to demonstrate that regulatory authorization has been obtained for the issuance of ESQK numbering resources.
- 3.8 These guidelines do not address the issue of who will fulfill the role of Interim 9-1-1 RNA. The NANC pANI IMG developed these interim guidelines with ESIF without any assumption on who should be the Interim 9-1-1 RNA.
- 3.9 The NANC developed these interim guidelines as a temporary guide for the industry pending development of permanent INC guidelines in cooperation with ESIF. .
- 3.10 Administrative assignment of the ESQK numbering resource to an ESQK holder does not imply ownership of the resource by the Interim 9-1-1 RNA, nor does it imply ownership by the ESQK holder to which it is assigned.
- 3.11 Interim 9-1-1 RNA and numbering resource administrators are responsible for managing numbering resources in accordance with these guidelines and the orders of applicable regulatory authorities.
- 3.12 An applicant is not required to provide any additional explanation or justification of items to which he/she has certified. However, that explanation/justification alone may not provide the Interim 9-1-1 RNA with sufficient information upon which to make a decision regarding pANI number assignment, and additional dialog and written documentation may be required. The Interim 9-1-1 RNA is still obligated to reply within five business days. [
- 3.13 Should the FCC delegate authority to state commissions, state commissions shall have access to Eligible Users’ inventory assignments and their use of ESQKs in each Selective Router for the purpose of ensuring the correct application of these numbering resources. Should the FCC delegate authority to state commissions, state commissions may request an accounting of inventories from the Eligible Users operating within their states, and Eligible Users must comply with such state commission requests. Entities that fail to comply with a state commission request for ESQK information shall be denied ESQKs should the FCC delegate such authority to state commissions.

- 3.14 The Interim 9-1-1 RNA will survey existing usage to ensure that unique ESQKs are being assigned.
- 3.15 These guidelines do not describe the method by which the unique ESQKs as identified in this document are transmitted across and processed by networks. Such arrangements may be contained in other standards, documents, or business agreements.

## **4 Assignment Principles**

The assignment principles defined below will be used by any entity assigning ESQKs during the interim period.

- 4.1 An Eligible User is any entity that provides the appropriate documentation identified in these guidelines for the need for ESQKs to perform routing or data retrieval functions associated with emergency services. In the context of these guidelines, an Eligible User shall include a VSP or an entity providing VPC service acting on behalf of VSP(s). An entity that has not obtained approval from the 9-1-1 Governing Authority will not be considered an Eligible User.
- 4.2 ESQKs are assigned for use at a Selective Router for which the Eligible User has approval to route E9-1-1 traffic for termination to a PSAP or an Emergency Service Zone (ESZ) within a PSAP.
- 4.3 ESQK NPA-211-XXXX should be used before ESQK NPA-511-XXXX unless ESQKs from NPA 211 have been assigned and are being used where the NPA will coincide with the NPA of the Selective Router. These ESQKs shall be considered non-dialable in the Eligible User's network.
- 4.4 ESQKs are assigned uniquely to individual Eligible Users.
- 4.5 At the discretion of the 9-1-1 Governing Authority, a VPC operator that processes 9-1-1 calls originating from various VSP networks is not required to acquire and use separate ESQKs for each VSP as long as the VPC enables clear identification of the originating VSP in the display of the caller's information at the PSAP.
- 4.6 ESQKs will be assigned in contiguous ranges (where possible), and in quantities requested by the applicant. However, the Interim 9-1-1 RNA does not guarantee that all ESQKs will be assigned in contiguous ranges.
- 4.7 Any entity assigning ESQKs will:
  - 4.7.1 Assign ESQKs in a fair, timely and impartial manner to any Eligible User.
  - 4.7.2 Assign ESQKs on a first come, first served basis from the available pool.
  - 4.7.3 Make all ESQK assignments in conformance with these guidelines.
  - 4.7.4 Treat all information received from applicants as proprietary and confidential. The Interim 9-1-1 RNA is permitted to provide the contact information for the assigned user of any given ESQK(s) to law

enforcement agencies, PSAPs, and E9-1-1 SSPs as well as any state or federal agency that has direct regulatory responsibilities over E9-1-1.

- 4.8 Information that is requested of an Eligible User in support of an ESQK application shall be uniform and kept to a minimum.

## **5 Criteria for the Assignment of ESQK Numbers**

The assignment criteria in the following sections shall be used by the Interim 9-1-1 RNA in reviewing an ESQK assignment request from an Eligible User for initial and/or additional ESQKs.

- 5.1 ESQKs are assigned to entities for use at a Selective Router for which the Eligible User has approval from the 9-1-1 Governing Authority to route E9-1-1 traffic for termination to a PSAP.
- 5.2 The potential Eligible User must self-certify that it is able to route traffic to the appropriate Selective Router before receiving its first grant of ESQK numbering resources.
- 5.3 The potential Eligible User must submit an ESQK request form certifying that a need exists for the assignment for use with a specific Selective Router.
- 5.4 The Interim 9-1-1 RNA will not issue ESQKs to an Eligible User without an Operating Company Number (OCN)<sup>9</sup>. The OCN cannot be shared with another Eligible User.
- 5.5 All applications for numbering resources must include the company name, company headquarters address, OCN, parent company's OCN(s), and the primary type of business in which the numbering resources will be used.<sup>10</sup>
- 5.6 All applications for numbering resources must include a National Emergency Number Association (NENA) provided Company ID to be associated with the ESQKs
- 5.7 ESQKs will not be reserved.
- 5.8 Information that is requested of an Eligible User in support of an ESQK application shall be maintained by the Interim 9-1-1 RNA.

## **6 ESQK Assignment Functions**

The Interim 9-1-1 RNA (s) shall:

- 6.1 Produce and make available upon request information regarding ESQK Administration processes, guidelines, interfaces and services.
- 6.2 Provide, upon request of the ESQK applicant, information on how to obtain documents related to pANI Numbering Administration by either referring the applicant to web sites where it will be possible to download electronic copies or

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<sup>9</sup> FCC 01-362, 47 C.F. R. § 52.15 (g)(4).

<sup>10</sup> FCC 00-104, 47 C.F.R. § 52.15 (g) (1).



- providing paper copies if the ESQK applicant cannot obtain the document via the Internet.
- 6.3 Receive and process applications (ESQK Assignment Request Form) for ESQKs within the geographic NPA(s) for which the Interim 9-1-1 RNA is responsible.
  - 6.4 Receive ESQK application from Eligible Users and validate the entire application to determine if the request is in compliance with ESQK assignment policies and guidelines. If one or more errors are identified, the Interim 9-1-1 RNA will notify the applicant with a list of all errors on the application. Upon notification, the application is suspended and the applicant has up to two business days to respond with the corrections back to the Interim 9-1-1 RNA. If the application is returned within the two business days with all errors corrected, the Interim 9-1-1 RNA will lift the suspension and proceed with the assignment process. If the errors identified by the Interim 9-1-1 RNA are not corrected by the applicant within two business days, the Interim 9-1-1 RNA will issue a denial.
  - 6.5 Respond within five business days from the date of receipt of an error free application form by completing the response portion of the form that is part of these guidelines.
  - 6.6 Maintain records on ESQKs assigned plus those available.
  - 6.7 The Interim 9-1-1 RNA will track and monitor ESQK assignments and assignment procedures to ensure that all assignments of ESQKs are being used in an efficient and effective manner. Ongoing ESQK administrative procedures that foster conservation shall include, but not be limited to, the following:
    - a) Strict conformance with these guidelines by those using ESQKs.
    - b) Appropriate and timely recommended changes to these guidelines, if they are found to result in inefficient or inappropriate use or assignment of ESQKs.. However, any changes to these guidelines must be forwarded to the INC for review and action.

## **7 Responsibilities of ESQK Number Applicants and Holders**

Incomplete/inaccurate number request forms will delay the start of the assignment process.

ESQK applicants and holders are responsible for obtaining a current copy of the pANI Interim Assignment Guidelines for ESQK.<sup>11</sup> ESQK applicants and ESQK holders shall comply with the following responsibilities:

- 7.1 Provide an OCN that uniquely identifies the applicant. The OCN cannot be shared with another service provider. In addition, the applicant's parent company

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<sup>11</sup> ESQK applicants can obtain a current copy of the pANI Interim Assignment Guidelines for ESQK at the following website:  
<http://www.atis.org/inc/docs/finaldocs/ESQK-Interim-Assignment-Guidelines-Final-Document.doc>

- OCN must be provided, if applicable<sup>12</sup>. The applicant can get OCN information by calling NECA.<sup>13</sup>
- 7.2 A NENA provided Company ID to be associated with the ESQKs.
  - 7.3 The information associated with ESQK assignment may change over time. Such changes may occur, for example, because of the transfer of an ESQK from a VSP to a VPC.
  - 7.4 The holder of ESQKs assigned by the Interim 9-1-1 RNA, or acquired by merger or acquisition, must use the ESQKs consistent with these guidelines. If the Eligible User no longer provides service in the area, the Eligible User must notify the Interim 9-1-1 RNA.
  - 7.5 The Interim 9-1-1 RNA will retain copies of such notifications and deliver them to the permanent 9-1-1 RNA for use in reclamation proceedings. The Interim 9-1-1 RNA must be immediately notified of any changes to the information contained in the application.

## **8 Assignment Procedures**

Entities requesting initial ESQK assignments and entities already assigned one or more ESQKs shall comply with the following:

- 8.1 An ESQK Applicant requesting resources from the Interim 9-1-1 RNA, shall:
  - a) provide the VoIP ESQK Interim Request Form (attached as an Exhibit to these interim guidelines) that it is an Eligible User;
  - b) complete the ESQK application form per these guidelines.
- 8.2 An applicant must apply to the Interim 9-1-1 RNA (contact details provided below). An applicant should follow all application instructions found on the application form. At a minimum, the form will request:
  - a) The full legal name of the applicant as it appears on the VESA certification, interconnection agreement, letter of certification, or legal documents provided to any regulatory authority having oversight.
  - b) Any names under which the applicant does business (d/b/a's)
  - c) The name and contact information (address, telephone number, and email address) of the individual making the request on behalf of the Applicant;
  - d) A list of the NPAs associated with the relevant Selective Router for which ESQKs are needed;
  - e) A list of the PSAPs to which the ESQKs requests are related, including the state, county, and municipality in which the PSAP is located; and
  - f) The quantity of ESQKs being requested for each NPA.

<sup>12</sup> FCC 01-362, 47 C.F.R. § 52.15 (g)(4).

<sup>13</sup> NECA assigns Company Codes that may be used as OCNs. Companies with no prior CO Code or Company Code assignments may contact NECA (800 524-1020) to be assigned a Company Code(s). Since multiple OCNs and/or Company Codes may be associated with a given company, companies with prior assignments should direct questions regarding appropriate OCN usage to the Telcordia™ Routing Administration (TRA) on 732 699-6700.

- 8.3 Any applicant denied an ESQK assignment under these guidelines has the right to appeal that decision (see Section 11 for procedures).

## **9 Interim 9-1-1 RNA Responsibilities**

- 9.1 The Interim 9-1-1 RNA will track and monitor ESQK assignments and assignment procedures, and recommend appropriate and timely changes to these guidelines, if they are found to result in inefficient or inappropriate use or assignment of ESQKs. However, any changes to these guidelines must be approved by the INC with guidance by ESIF if appropriate.
- 9.2 The Interim 9-1-1 RNA will not engage in audits or reclamation.
- 9.3 Initial Implementation: Before it begins assigning ESQKs, the Interim 9-1-1 RNA must ensure that the ESQKs it assigns are not presently in use. Because it is believed that few ESQKs have been assigned from the 211 NXXs, the Interim 9-1-1 RNA will assign ESQKs only from the 211 NXX unless extenuating circumstances exist. To avoid duplication, the Interim 9-1-1 RNA will first perform the following steps in order until it can determine what numbers are available to be assigned:
1. Ask existing mobile position center (“MPC”) and VPC vendors to provide a list of all the entities that have been assigned pANIs in the 211 NXX, and the entity (and contact information) that assigned the pANI.
  2. Ask each wireless service provider to respectively identify the entity that provides pANIs to it.
  3. Ask each E9-1-1 SSP to identify any pANI and entity that it has assigned a p-ANI to from the 211 code. In addition, ask each E9-1-1 SSP to identify any other entities that may perform pANI assignments within its territory (including independents).
- 9.4 Once it has compiled a list of entities that assign numbers, the Interim 9-1-1 RNA will canvass those entities to determine what, if any, pANIs they have assigned from the 211 NXX. The remaining available pANIs in the 211-NXX in all NPAs will constitute the available pool from which the Interim 9-1-1 RNA will assign ESQKs.
- 9.5 The Interim 9-1-1 RNA will ensure the completeness of each application and accompanying documentation before it assigns resources.
- 9.6 The Interim 9-1-1 RNA will process each application within 5 business days, on a first in, first out basis, and inform the applicant of the result by an identifiable email form. If the application is denied, the Interim 9-1-1 RNA will provide a detailed explanation of the denial.

## **10 Conflict Resolution and Appeals Process**

- 10.1 Every attempt will be made at the time of assignment to avoid conflicts with existing pANIs.
- 10.2 Disagreements may arise between parties affected by these interim guidelines in the context of the administration and management of these guidelines. In all cases, the parties will make reasonable, good faith efforts to resolve such disagreements among themselves, consistent with the interim guidelines, prior to pursuing any appeal.
- 10.3 If a conflict is determined to exist, the following escalation process should be followed:
  - a) The affected party should contact the entity with whom the conflict exists and attempt a resolution
  - b) If resolution cannot be achieved among the involved affected parties, the issue should be escalated in the following order:
    - i. the Interim 9-1-1 RNA for a recommended solution;
    - ii. The state regulatory authority having oversight, if any;
    - iii. the NANC;
    - iv. the FCC .
- 10.4 Questions regarding interpretation or clarification of these Interim Guidelines may be referred to NANC for resolution. Unless otherwise mutually agreed to by the parties, these questions will be submitted in a generic manner protecting the identity of the appellant.
- 10.5 Reports on any resolution resulting from the above options, the content of which will be mutually agreed upon by the involved parties, will be kept on file by the Interim 9-1-1 RNA. At a minimum, the report will contain the final disposition of the appeal, e.g., whether or not an ESQK was assigned.

## **11 Maintenance of These Guidelines**

- 11.1 These guidelines may be updated to reflect changes in industry practices or national regulatory directives.
- 11.2 Requests for changes to these guidelines should be directed to the appropriate industry forum, currently the INC.

## **12 Future Considerations**

The issues identified in this section will not be the responsibility of the Interim 9-1-1 RNA, however it is imperative that these issues be examined when adopting permanent guidelines.

### **12.1 pANI Number Resource Management**

- a) The Interim VoIP Architecture for Enhanced 9-1-1 Services (i2) currently posted on the NENA web site for public review/comment contains ESQK processing, utilization and administration principles proposed as industry standard. The final i2 standard should be a consideration in the development of permanent guidelines.
- b) With over 6000 PSAPs and an unknown number of Eligible Users, it is vital that the permanent 9-1-1 RNA employ pANI allocation practices that support the efficient and effective use of the pANI numbering resources.

### **12.2 Segregating wireless (ESRKs) and VoIP (ESQK) pANI Numbering Resources**

- a) There are substantial benefits from segregating wireless pANIs (ESRKs) and VoIP pANIs (ESQKs) into separate NXX codes. Accordingly, they should be so segregated wherever possible. As a general matter ESQKs should not be drawn from an NXX that has already been opened for ESRKs, and when a code is exhausted for either ESQKs or ESRKs, it is preferable to open a new code rather than to assign ESQKs and ESRKs from the same code.
- b) Public safety agencies rely on the particular NXX to make important distinctions. For example, where 511 (or 211) is used for ESRKs, 511 on a "No Record Found" query identifies the caller as wireless. If 511 were used in the same area for ESQKs, this distinction would be lost.
- c) Public safety agencies also key on the NXX to create reports. If ESRKs and ESQKs are drawn from the same NXX, creating such reports for wireless-only or VoIP-only will not be possible. In some cases these reports are used to ensure accurate billing.

### **12.3 Other Consideration**

Should the CLLI code associated with the relevant Selective Routers and the appropriate NPAs be identified on the ESQK request form?

### **13**    **Glossary**

9-1-1 Governing Authority	An entity designated under state law or regulation to have decision-making and oversight responsibilities for a 9-1-1 Emergency Number System for one or more PSAPs.
Applicant	Eligible Users who submit a ESQK Request to the Interim 9-1-1 RNA for the purpose of being assigned ESQKs for their use.
Central Office (CO) Code	The sub-NPA number in a TN, i.e., digits D-E-F of a 10-digit NANP Area address. Central office codes are in the form “NXX,” where N is a number from 2 to 9 and X is a number from 0 to 9. Central office codes may also be referred to as “NXX codes.” (47 C.F.R. § 52.7(c))
Conservation	Consideration given to the efficient and effective use of a finite numbering resource in order to minimize the cost and need to expand its availability in the introduction of new services, capabilities and features.
E9-1-1 System Service Providers (E9-1-1 SSP)	Generally speaking, an E9-1-1 SSP is in the majority of cases an ILEC but there are other entities that perform that function.
Eligible User	An Eligible User is any entity that provides the appropriate documentation identified in these guidelines for the need for ESQKs to perform routing or data retrieval functions associated with emergency services. In the context of these guidelines, an Eligible User shall include a VSP or an entity providing VPC service acting on behalf of VSP(s). An entity that has not obtained approval from the 9-1-1 Governing Authority will not be considered an Eligible User.
Emergency Services Interconnection Forum (ESIF)	ESIF, of the Alliance for Telecommunications Industry Solutions (ATIS), is the primary venue for the telecommunications industry, public safety and other stakeholders to generate and refine both technical and operational interconnection issues to ensure life-saving E9-1-1 services are available for everyone in all situations. ESIF enables many different telecommunications entities to fully cooperate and interconnect with each other to determine the best practices and solutions necessary to effectively and promptly deploy E9-1-1 services nationwide. ESIF's mission is to facilitate the identification and resolution of both technical and operational issues related to the interconnection of telephony and emergency services networks.

Emergency Service Query Key (ESQK)	Emergency Service Query Key (ESQK) – The ESQK identifies a call instance at a VPC, and is associated with a particular SR and PSAP combination. The ESQK is delivered to the E9-1-1 SR and as the calling number/ANI for the call to the PSAP. The ESQK is used by the SR as the key to the Selective Routing data associated with the call. The ESQK is delivered by the SR to the PSAP as the calling number/ANI for the call, and is subsequently used by the PSAP to request ALI information for the call. The ALI database includes the ESQK in location requests sent to the VPC. The ESQK is used by the VPC as a key to look up the location object and other call information associated with an emergency call instance. The ESQK is expected to be a ten-digit North American Numbering Plan Number.
Industry Numbering Committee (INC)	A standing committee of the Alliance for Telecommunications Industry Solutions (ATIS) that provides an open forum to address and resolve industry-wide issues associated with the planning, administration, allocation, assignment and use of numbering resources and related dialing considerations for public telecommunications within the North American Numbering Plan (NANP) area.
North American Numbering Council (NANC)	North American Numbering Council - On October 5, 1995, the Federal Communications Commission (FCC) established the North American Numbering Council (NANC), by filing its charter with Congress, to provide advice and recommendations to the FCC and other governments (including Canada and Caribbean countries) on numbering issues.
NANP (North American Numbering Plan)	A numbering architecture in which every station in the NANP Area is identified by a unique ten-digit address consisting of a three-digit NPA number, a three digit central office number of the form NXX, and a four-digit line number of the form XXXX.
NANPA (North American Numbering Plan Administration)	With divestiture, key responsibilities for coordination and administration of the North American Numbering/Dialing Plans were assigned to NANPA. These central administration functions are exercised in an impartial manner toward all industry segments while balancing the utilization of a limited resource.

NANP Area	Consists of the United States, Canada and the Caribbean countries (American Samoa, Anguilla, Antigua, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, St. Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Turks & Caicos Islands, Trinidad & Tobago, and the United States (including Puerto Rico, the U.S. Virgin Islands, Guam and the Commonwealth of the Northern Mariana Islands).
Numbering Plan Area (NPA)	<p>Numbering Plan Area, also called area code. An NPA is the 3-digit code that occupies the A, B, and C positions in the 10-digit NANP format that applies throughout the NANP Area. NPAs are of the form N0/1X, where N represents the digits 2-9 and X represents any digit 0-9. After 1/1/95, NPAs will be of the form NXX. In the NANP, NPAs are classified as either geographic or non-geographic.</p> <p>a) <u>Geographic NPAs</u> are NPAs which correspond to discrete geographic areas within the NANP Area.</p> <p>b) <u>Non-geographic NPAs</u> are NPAs that do not correspond to discrete geographic areas, but which are instead assigned for services with attributes, functionalities, or requirements that transcend specific geographic boundaries. The common examples are NPAs in the N00 format, e.g., 800.</p>
Operating Company Number (OCN)	An Operating Company Number is a four place alphanumeric number that uniquely identifies providers of local telecommunications service. OCN assignments are required of all Service Providers in their submission of utilization and forecast data (FCC 00-104, ¶ 41 and Public Notice DA 00-1549). Relative to CO Code assignments, NECA assigned Company Numbers may be used as OCNs. Companies with no prior CO Code or Company Number assignments contact NECA (800 524-1020) to be assigned a Company Number(s). Since multiple OCNs and/or Company Numbers may be associated with a given company, companies with prior assignments should direct questions regarding appropriate OCN usage to the Telcordia™ Routing Administration (TRA) on 732 699-6700.
Pseudo-Automatic Number Identification (pANI) Codes	Used generically in this document to include any of the other more specifically descriptive acronyms associated with numbers used for routing emergency calls today, such as but not limited to: ESRD, ESRK, ESQK, PSAP routing numbers, etc.
Service Provider	The term “service provider” refers to a telecommunications carrier or other entity that receives numbering resources from the NANPA, a Pooling Administrator or a telecommunications carrier for the purpose of providing or establishing telecommunications



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	service (FCC 00-104, § 52.5 (i)).
Unassignable Code	An unassignable number is an NXX code designated by the administrator which will not be made available for assignment to any number applicant. For example, the number “9-1-1” will not be assigned as a central office code so as to avoid potential conflict with emergency services.
VPC	VoIP Positioning Center.
Wireless E9-1-1 ESRD/ESRK Number	A 10-digit number used for the purpose of routing an E9-1-1 call to the appropriate Public Service Answering Point (PSAP) when that call is originating from wireless equipment. The Emergency Services Routing Digit (ESRD) identifies the cell site and sector of the call origination in a wireless call scenario. The Emergency Services Routing Key (ESRK) uniquely identifies the call in a given cell site/sector and correlates data that is provided to a PSAP by different paths, such as the voice path and the Automatic Location Identification (ALI) data path. Both the ESRD and ESRK define a route to the proper PSAP. The ESRK alone, or the ESRD and/or Mobile Identification Number (MIN), is signaled to the PSAP where it can be used to retrieve from the ALI database, the mobile caller’s call-back number, position and the emergency service agencies (e.g., police, fire, medical, etc.) associated with the caller’s location. If a NANP TN is used as an ESRD or ESRK, this number cannot be assigned to a customer.

***VoIP Interim ESQK Request Form***

**Applicant Information**

**\* Required Entries**

Applicant Company () Legal Name	*
DBA Name(s) (if any)	*
Operating Company Number (OCN)	*
NENA ID	*
Contact Name	*
Contact Address1	*
Contact Address2	
Contact City	*
Contact State	*
Contact Zip	*
Contact Telephone Number	*
Contact E-Mail Address	*

**PSAP Information**

PSAP Name	*
PSAP State	*
PSAP County	
PSAP Municipality	
9-1-1 Governing Authority Contact Name	*
9-1-1 Governing Authority Contact Tel#	*
9-1-1 Governing Authority Contact E-mail	

**# ESQKs Requested**

Valid NPAs for the area being served	*
NPA in which ESQK(s) have been requested	*
Total Number of ESQKs Requested	*

**Applicant Certification**

I hereby certify that I have read the "pANI Interim Assignment Guidelines for ESQK " and meet the criteria required to obtain the requested number of ESQKs.

VSP Authorized Electronic Signature, or  
VPC Authorized Electronic Signature

**Assignment (To be Completed by Interim 9-1-1 RNA)**

A list of the ESQKs assigned  
Date Assigned

\*

**Assigned By**

Interim 9-1-1 RNA Contact Name  
Interim 9-1-1 RNA Contact Telephone Number  
Interim 9-1-1 RNA E-mail Address

\*

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**By applying for this resource, the applicant hereby certifies that it has obtained approval from the appropriate 9-1-1 Governing Authority to provide routing or data retrieval for E9-1-1 traffic to the applicable PSAP. Should it later be determined that such authority has not been obtained, the applicant will be reported to the FCC and the appropriate state commission, and may be denied further resources.**