NANC
Recommendations
For
Permanent pANI Administration

Prepared by the pANI IMG

November 30, 2006

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1. Executive Summary

This document identifies and recommends the guiding principles and policy framework associated with permanent Pseudo-Automatic Number Identification (pANI) administration. Routing of emergency calls requires a pANI if an End User is using a non-fixed location service, or has a telephone number which is foreign to their service address. For the latter case, if the rate center of the telephone number does not match the rate center of the service address, the caller requires pANI routing.

The Alliance for Telecommunications Industry Solutions' Industry Numbering Committee (ATIS INC) is assigned to write the Permanent pANI Guidelines. The ATIS INC is to incorporate the requirements of this document and the Interim pANI Assignment Guidelines into the permanent guidelines. The ATIS INC should ensure that the permanent guidelines give no Eligible User an advantage or disadvantage but maintains competitive neutrality in the acquisition of pANI codes from the Permanent pANI Administrator.

2. Background

The present goal of the pANI IMG is to finalize its permanent pANI administration recommendation as described below and in the November 30, 2005 pANI IMG's report to the NANC. The permanent pANI administration recommendation includes the development of complete guidelines and administrative procedures by ATIS INC in cooperation with the ATIS Emergency Services Interconnection Forum (ATIS ESIF), using the FCC approved NANC policies and guiding principles included in this document for the use of pANIs in all modes of communication.

On September 8, 2006, the FCC's Wireline Competition Bureau (Bureau) issued a letter addressing the NANC recommendation that NeuStar, the current Pooling Administrator (PA), serve as the Interim Routing Numbering Authority (Interim RNA) to administer pANI numbering resources. The Bureau concluded that the pANI administration falls with the broad scope of the PA's current pooling contract and instructed the current PA to perform the pANI administration function in accordance with the NANC's December 5, 2005, pANI Interim Assignment Guidelines for ESQK (Initial Interim Guidelines) until a permanent pANI solution is in place or until the expiration of the contract for the current pooling administrator, whichever comes first.

In addition, the Bureau required the interim RNA to comply with the NANC's Initial Interim Guidelines, except for Section 3.3 which stated that the Interim RNA did not need to comply with the FCC rules that govern numbering. The Bureau directed the Interim RNA to ignore Section 3.3 of the guidelines and to comply completely with the FCC's Part 52 numbering rules. The FCC clarified that an entity seeking pANIs from NeuStar must have appropriate authority to access numbering resources in general and, thus, must be licensed or certified by the FCC or a state commission to operate as a

telecommunications carrier and must provide to the Interim RNA evidence of such authority.

As further background, a version of the permanent pANI administration recommendation was included in the November 30, 2005, pANI IMG's report to the NANC and also in a January 5, 2006, letter from Bob Atkinson, NANC Chair, to Tom Navin, Chief, Wireline Competition Bureau at the FCC. The IMG recommendation for the permanent pANI Administrator states that:

1. the pANI administration should be managed under a federal (i.e., FCC) procurement similar to procurements which led to the current NANPA and PA contracts;

2. the pANI Administrator responsibilities should be included in the FCC's next Number Administration procurement so that a permanent administrator can be selected as quickly as possible. (The basis of this recommendation is that industry participants in the IMG believe that the level of work involved in pANI administration doesn't require a third administrator and that it would therefore be much less costly to add the pANI function to an existing administrator's responsibilities.); and

3. the pANI Administrator responsibilities should be discharged by the entity selected to be the Pooling Administrator. (The basis of this recommendation is that the assignment of pANIs is functionally more like number pooling than number administration.)

On July 25, 2005, ATIS ESIF submitted to the industry and to NANC a set of "pANIs Used for Routing Emergency Calls -- pANI Assignment Guidelines and Procedures"[1]. On August 5, 2005, the NANC Future of Numbering Working Group established the pANI Issue Management Group (pANI IMG) to address the request by ATIS ESIF and provide a recommendation to NANC.

The IMG concurred with the basic recommendations of the ATIS ESIF to establish an Interim 9-1-1 Numbering Administrator to administer pANI numbering resources and envisioned this to be a two phase process. Phase I consisted of interim guidelines (which incorporates concepts and information from the ATIS ESIF document and uses it along with ATIS INC document templates) 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. The interim guidelines apply to the Interim 9-1-1 pANI Administrator and any entities that seek to obtain numbers from the Interim 9-1-1 pANI Administrator until such time as the INC in cooperation with the ESIF can develop and publish complete guidelines and administrative procedures concerning pANIs. Phase I, completed on September 14, 2005, consisted of the interim guidelines and a recommendation that the Pooling Administrator be the Interim pANI Administrator.   The

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[1] © 2005 by Alliance for Telecommunications Industry Solutions) created by the Emergency Services Interconnection Forum (ESIF).

FCC letter of September 8, 2006, that is referenced above addresses the pANI IMG's Phase I recommendation for an Interim 9-1-1 Numbering Administrator.

3. Administration

A version of the permanent pANI administration recommendation was included in a January 5, 2006, letter from Bob Atkinson, NANC Chair, to Tom Navin, Chief, Wireline Competition Bureau at the FCC.

> "As you know, the North American Numbering Council (NANC) has established an Issues Management Group (IMG) to develop recommendations to facilitate implementation of the Commission's requirement that VoIP service providers provide enhanced 9-1-1 (E9-1-1) service. On September 6, 2005, I forwarded to you the IMG's initial recommendation which was that a "pseudo ANI" (pANI) should be utilized to accomplish the Commission's objective and that a neutral organization, similar to North American Numbering Plan Administrator (NANPA) or the Thousand Block Pooling Administrator (PA), would be needed to administer the pANIs."
>
> "The purpose of this letter is to advise you that at it's November 30, 2005 meeting, the NANC adopted additional recommendations from the IMG concerning the procurement of *permanent* pANI administration in the FCC's next number administration procurement, presumably for a new Pooling Administrator contract since the current PA contract expires in June 2006.

The September 6, 2005 letter also recommended immediate appointment of the Pooling Administrator as the _interim_ pANI Administrator.

4. Policy Framework

The following policies are for use by the ATIS Industry Numbering Committee (INC) for the development and ongoing management of the Permanent pANI Administration Guidelines.

4.1   The pANI Resource Management Approach

The following points form the basis of a pANI code assignment, deployment and forecasting process that is similar to existing Numbering Resource Optimization principles in use today, but will vary as a result of the unique application and use of pANI resources:

1.   The Permanent pANI Administrator is responsible for correlating pANI consumption, deployment and forecasts to ensure the timely availability of pANI resources.

2. The NANPA is responsible for aggregating input from the Permanent pANI Administrator; including pANI code 'current and forecasted' consumption, in NPA and NANP exhaust forecasting.

3. Recipients of pANIs are responsible for providing a 'forecast' in a uniform format for use by the Permanent pANI Administrator. The issue can be referred by ATIS INC to ATIS ESIF.

4. Recipients of pANIs are responsible for providing 'deployment' status/Eligible User Annual Report in a uniform format for use by the Permanent pANI Administrator. The issue can be referred by INC to ESIF.

5. Applicants of pANIs are responsible for ensuring the Permanent Administrator possesses a current 'forecast' and 'deployment' before applying for pANIs.

6. Applicants for additional pANI assignments, which raise the aggregate pANI's assigned to the Eligible User above the ESIF threshold, are required to provide supporting documentation.

7. pANI assignments shall be returned by Eligible Users if they are not in use or be subject to reclamation by the Permanent pANI Administrator in accordance with Section 4.8.

4.2   What constitutes an Eligible User?

The Permanent pANI Administrator shall grant pANI resources for the purpose of assigning routing keys to an Eligible User as defined in the Glossary.

4.3   Should pANI NXX codes be shared or separated based upon the technology (wireless, wireline, VoIP, or new technology) used by the Service Provider?

All pANI NXX codes will be shared among Eligible Users on a technology neutral basis.

4.4   Who should assign pANI codes upon approval of the Permanent pANI Administrator?

Upon approval of the Permanent pANI Administrator, the procurement, management and assignment of all pANI's will be the sole responsibility of the Permanent pANI Administrator. All pANI administration being performed by an Interim Routing Numbering Authority and/or ILEC will be transitioned to the Permanent pANI Administrator based upon a mutually coordinated migration plan that is project managed by the Permanent pANI Administrator. After that transition, only the Permanent pANI Administrator will assign pANI's for the use

of emergency call routing and/or for the retrieval of an emergency caller's location.

Immediately after the Permanent pANI Administrator has assumed and/or migrated the pANI assignment responsibilities, only pANI's of the NPA-211 or 511 format, from the industry assigned NPA/NXX's will be assigned for emergency call routing and/or for the retrieval of an emergency caller's location.

As new pANI codes are allocated for use the Permanent pANI Administrator will make the assignment for ESQKs and ESRKs.

4.5 Resource Management Tools

Description of Resource Management Tools

The following descriptions provide high level guidance into the qualities and attributes of each tool for potential use by the ATIS INC when further developing the approach needed to ensure efficient use and management of pANI resources:

- Permanent pANI Administrator Consumption
    - Measures 'rate and quantity' of pANIs "assigned" over time
    - Reveals activity variance from forecast or anticipated consumption
- Eligible User Annual Report
    - Measures 'use' of allocated and activated pANIs
    - Identifies pANIs not in use (allocated) but pending activation (use)
    - Is used to determine whether assignment of additional pANIs is warranted
    - A 'current forecast report' must be on file with the pANI Administrator before an applicant can apply for additional pANIs
- Eligible User Forecast Report
    - Measures 'anticipated' need by individual pANIs, ranges of pANIs and (unlikely) codes of pANIs
    - Updated by pANI Eligible User at some established frequency
    - Updated by pANI Eligible User whenever its forecast changes. Would it be possible to quantify this by saying something to the effect of: "An eligible user should update their forecast when they have been assigned X% (95% may be a good threshold comparable to the 75% threshold established for replenishing NANP numbers) of their existing forecast?
    - Poor/inaccurate forecast may delay assignment if pool insufficiency is due to applicants need for non-forecasted pANIs

- o A 'current forecast report' must be on file with the administrator before an Eligible User can apply for initial/growth pANIs. This means a forecast that is reflective of the Eligible User's anticipated resource requirements.

- Permanent pANI Administrator Input to NANPA

  - o Required to contribute to NANPA's analysis of NPA and NANP exhaust.

  - o Aggregate forecast, deployment and consumption of ranges of pANIs.

  - o The pANI Administrator will request a new NXX code from NANPA for use when existing pANI codes are reaching exhaust within an NPA.

- Permanent pANI Administrator tracks Application Data

  - o An Eligible User's current forecast report and Eligible User Annual Report must be on file.

- Permanent pANI Administrator has responsibility for Return/Reclamation of unused/unneeded pANIs

  - o The pANI Administrator will send a notice of reclamation to the pANI Eligible User. If a pANI Eligible User disputes the reclamation, the reclamation process will be suspended until resolved.

4.6.   **Should the Permanent pANI Administrator use the Numbering Resource Utilization/Forecast (NRUF) reporting and reclamation process?**

No. The NRUF reporting process is not appropriate for this situation. Not only do we expect that many Eligible Users will ultimately be using pANIs from within a common NPA-NXX-X thousands block range, but pANIs are also generally not assigned at the thousands block level. The pANIs are generally allocated to the Eligible Users in the exact quantity of numbers that they require and therefore, the NRUF reporting structure is not an appropriate method to keep track of the usage "within" an open NPA-NXX or NPA-NXX-X range used for pANI assignments. Requiring eligible users to follow the NRUF process could delay receipt of information by the Permanent pANI Administrator when a simple summary of the pANIs in use would provide the information necessary to administer the codes.

4.7.   **User Reporting Requirements**

Users of pANIs must report annually which pANIs and/or pANI ranges are in use via an annual report transmitted to the Permanent pANI Administrator. The Permanent pANI Administrator will use this data to identify which pANIs are assigned, but not in use. Unused resources will trigger reclamation as indicated in the Permanent pANI Guidelines.

Any pANI resources that no longer meet the requirements for such an assignment will be subject to reclamation by the Permanent pANI Administrator. This includes any assigned and or allocated resource that does not have its current confirmation on file with the Permanent pANI Administrator. The Permanent pANI Administrator will maintain these reports filed by pANI Users.

The spreadsheet below is an example of the annual pANI Usage Report referred to above.

2006 pANI Annual Report		Range				
User	NPA-NXX	Low	High	In Use (Y/N)	Shared W/OCNs	Remarks
Examples						
"XYZ" Co.	303-211	1100	1140	Y	1234, 4567, 8901	None
"XYZ" Co.	212-211	2000	2020	N	1234, 4321	Pending

4.8   What method of reclamation of pANI codes should be required if any.

The Permanent pANI Administrator should perform the reclamation of available pANI values (both individual and consecutive number ranges) for the NPA-NXX combinations that it administers.

Examples of situations that may warrant the initiation of reclamation may include, but aren't limited to:
1) the designated assignee is no longer an Eligible User or,
2) has transitioned to the use of another pooled resource.

4.8.1   Should the Permanent pANI Administrator Be Responsible for Reclamation of pANI codes?

Yes, if the codes are administered by the Permanent pANI Administrator. Reclamation should be done after completion of the yearly audit.

4.8.2   Reclamation Process

The ATIS INC will develop an appropriate reclamation process for the Permanent pANI Administrator.

4.9   Impact on NXX's 211 & 511 for pANI Code assignments and number exhaust.

NANPA will monitor and report annually on the impact of pANI NXX codes that could drive exhaust in an NPA or overlay NPA(s) within three years.

The ATIS INC will develop the process for selecting a new NXX code(s) for NANPA to use when existing pANI codes exhaust within an NPA or overlay NPA(s).

4.10   Transition from Dialable pANIs

4.10.1 At what point should carriers be required to move off non-pANI codes?

Users shall develop a plan to convert their existing dialable pANIs to pANIs in the format of NPA-511-XXXX, NPA-211-XXXX, or other pANI NPA NXX codes that may be assigned by the North American Numbering Plan Administrator (NANPA). ESIF recognizes that a migration is a business decision for each User. Migration to NPA-211 or 511 formatted pANIs can be a delicate process, and can impose significant burdens on Users, service providers, and PSAPs, thus should be done in a deliberate and judicious manner. Until a specified timeframe or triggers occur, Users should be able to leave existing pANIs in place.

4.10.2 What are the technical issues that may prevent this move?

The pANI IMG anticipates that ATIS INC and ATIS ESIF to provide answers to any technical issues raised.

4.10.3 Should the move from non-pANI codes to NANPA assigned pANI codes be voluntary and based upon specific triggers, or mandatory with a set future date, or some combination of requirements?

Because a User is the best entity to determine when it should migrate its pANIs to NPA-211 or 511 formatted pANIs, the plan should include either specific timeframes or business/technology triggers to initiate conversion. Such triggers may include technology deficiencies that adversely affect 9-1-1 service (e.g., those that generate erroneous calls to PSAPs), retesting of PSAPs, re-homing of selective routers, changes in technology that drive PSAP level testing, etc.

Migration of existing pANIs to NPA -211 or 511 pANIs should be handled by the User in partnership and close coordination with the public safety community and E9-1-1 service providers to ensure an efficient and timely use of resources with minimal impact on existing service.

The following matrix provides an summary of the transition functions envisioned at this time. The transition from dialable numbering resources being used as pANIs will present the greatest challenge during transition, especially numbering resources that are from resources not directly assigned by the NANPA or PA to the actual user of the pANI.

Transition Function Summary

pANI Scenario	Role of Permanent pANI Administration	Process Overview
Voluntary pANI Administrator(s) transfer of the NPA-211 /NPA 511 pANI resources functions inclusive of the inventory of assigned and available pANIs to the Permanent pANI Administrator employing a mutually agreed to timeline.	The Permanent pANI Administrator will Project Manage the mutually agreed transition plan to ensure quality and timeliness, as well as to make certain that the industry is aware of the implementation schedule and where to apply for pANI resources during transition.	1. Permanent pANI Administration initiates organizational meeting to establish mutually agreed transition plan details. 2. A mutually agreed timeline with milestones is drafted and adopted as are work plan details. 3. The Voluntary pANI Administrator prepares inventory of assigned and available pANIs. 4. Voluntary pANI Administrator transfers records and duties/responsibilities to the permanent pANI Administrator.
Directory/Dialable pANIs from a Code / Block that is assigned to the user and are being used and planned by the assignee to be replaced with NPA-211 /NPA-511 pANI.	When a User applies for and meets all the requirements to be assigned pANIs, the Permanent pANI Administration will provide NPA-211 /NPA-511 pANIs per pANI administration guidelines. See NANC Recommendation of Permanent pANI Administration Section 4.10 titled: Transition *from Dialable pANIs*.	Not Applicable
Directory/Dialable pANIs that are planned by the assignee to be replaced with NPA-211/NPA-511 pANI but **_are_** being used by the an entity other than the numbering resource assignee, e.g., LERG and/or NPAC owner.	When a User applies for and meets all the requirements to be assigned pANIs, the Permanent pANI Administration will provide NPA-211 /NPA-511 pANIs per pANI administration guidelines. See NANC Recommendation of Permanent pANI Administration Section 4.10 titled: Transition from Dialable pANIs.	Not Applicable

5. Guiding Principles

The recommendations contained within this report are based on the following principles, which should provide guidance for any future pANI Administration guideline development by the ATIS INC.

5.1 General Principles

The following general principles apply to pANI assignment and administration:

- As pANI are used for the routing of emergency calls, the pANI IMG encourages all participants in the numbering process to exercise special care in the policy and administration of pANI and to follow a "first, do no harm" principle.
- They are a shared numbering resource warranting neutral third-party administration
- They require similar assignment and resource management as does number pooling
- They will utilize the 10 digit NPA-N11-XXXX NANP format
- These NANP resource numbers are non-dialable

5.2 Regulatory Mandates

Administration and assignment of pANI's will comply with all mandated and required number resource assignment and optimization requirements, such as the following:

Section 251 of the 1996 Telecommunications Act

(e) Numbering Administration-
    (1) Commission Authority and Jurisdiction - The Commission shall create or designate one or more **impartial** entities to administer telecommunications numbering and to make such numbers **available on an equitable basis**. The Commission shall have exclusive jurisdiction over those portions of the North American Numbering Plan that pertain to the United States. Nothing in this paragraph shall preclude the Commission from delegating to State commissions or other entities all or any portion of such jurisdiction."
    (2) Costs – The cost of establishing telecommunications numbering administration arrangements and number portability shall be **borne by all telecommunications carriers** on a competitively neutral basis as determined by the Commission.

6.   Technical Requirements

The following are technical administrative and management details that are to be included in the pANI Administrative Guidelines to be developed by ATIS INC.

6.1.   9-1-1 Selective Router CLLI™ Code Use

The COMMON LANGUAGE® Location Identification Code (CLLI™ Code) is typically used within the telecommunications industry to uniquely identify network locations, access, intermediate and/or end points, as well as telecommunications switching equipment. Most Selective Routers already possess a unique CLLI Code assigned by Telcordia for use in establishing interconnection to other network elements. To ensure the appropriate 9-1-1 Selective Router is identified on the pANI Request Form, the CLLI Code identifier of the Selective Router must be entered in the appropriate CLLI Code field.

If the pANIs requested will be used in a dual Selective Router environment, a separate pANI Request Form must be submitted for each Selective Router that the eligible user is seeking pANI assignments.

6.2.   pANI Assignment

The pANI Administrator will need to have tools available to guide them in determining appropriate pANI assignment elements. These elements and a formula to assist the Administrator in making any determination will be provided by ATIS ESIF and INC such that formula requirements will not provide any particular Eligible User an advantage or disadvantage over another. Thus pANI administration will maintain competitive neutrality in the acquisition and assignment of pANI codes.

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7.   Recommendation

The pANI IMG recommends that the NANC adopt this document which identifies and recommends the guiding principles and policy framework associated with permanent Pseudo-Automatic Number Identification (pANI) administration. Routing of emergency calls requires a pANI if an End User is using a non-fixed location service, or has a telephone number which is foreign to their service address. The pANI IMG also recommends that the NANC forward this document to the FCC and to the ATIS INC.

At the September 20, 2005 NANC meeting, the ATIS INC accepted the assignment to write the Permanent pANI Guidelines. As a part of the NANC recommendation, the ATIS INC is to incorporate, to best of its ability, the requirements of this document, along with the Interim pANI Assignment Guidelines into the permanent guidelines. During the development of the permanent guidelines ATIS INC should also give consideration to any "lessons learned" by the Interim RNA and/or changes to the existing rules and regulations. The ATIS INC should ensure that the permanent guidelines give no Eligible User an advantage or disadvantage but maintains competitive neutrality in the acquisition of pANI codes from the Permanent pANI Administrator.

As requested of the NANC for its report and recommendation to the FCC, the pANI IMG expended an estimated 839 hours of meeting time working on this document. The time does not include sub-teams hours or that of multiple individual contributor hours.

8. Appendices – Glossary & Participants

Appendix – A 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.
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)	An E9-1-1 System Service Provider (E9-1-1SSP), typically but not always an ILEC, provides systems and support necessary to enable 9-1-1 calling for a single or group of Public Safety Answering Points (PSAPs). In relation to the jurisdictional boundary of the PSAP and the system provider's scope of authority, this includes: 1) A method of interconnection for all telecommunications providers including but not limited to the wireline, wireless, and VoIP carriers 2) A method for routing a 9-1-1 call to the correct PSAP with no degradation in service regardless of the technology to originate the call 3) A method to provide accurate location information for an emergency caller to a PSAP and if required, other emergency response agencies 4) Installation and training of PSAP call handling equipment and other related systems when required 5) Coordinating with PSAP authorities on issues involving contingency planning, disaster mitigation and recovery 6) A conduit and necessary oversight for providing cost remittance to the PSAP authority when needed. Note: It is likely that in the future this role will not always be performed by an ILEC.

Eligible User	An "Eligible User" is an entity: 1. That demonstrates that it is permitted under applicable law to access pANI resources in the area for which the pANI resources are sought, AND 2. Has been assigned a valid Operating Company Number (OCN) by the National Exchange Carrier Association, Inc. (NECA); AND 3. Has been assigned a valid company identification number by NENA; AND 4. Self-certifies that it has the technical and functional capability to route traffic or provide routing instructions to a public service answering point (PSAP)
Emergency Services Interconnection Forum (ATIS ESIF)	ESIF is a standing committee of the Alliance for Telecommunications Industry Solutions (ATIS)and 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. ATIS 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. ATIS 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) and Emergency Service Routing Key (ESRK)	Emergency Service Query Key (ESQK) and Emergency Service Routing Key (ESRK) are Emergency Service Keys – The Emergency Service Key identifies a call instance at a Eligible User, and is associated with a particular Selective Router and PSAP combination. The Emergency Service Key is delivered to the E9-1-1 Selective Router and as the calling number/ANI for the call to the PSAP. The Emergency Service Key is used by the Selective Router as the key to the Selective Routing data associated with the call. The Emergency Service Key is delivered by the Selective Router 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 Emergency Service Key in location requests sent to the Eligible User. The Emergency Service Key is used by the Eligible User as a key to look up the location object and other call information associated with an emergency call instance. The Emergency Service Key is expected to be a ten-digit North American Numbering Plan Number.
Fixed Location Service	A device or service that can only operate from the registered address or location
Industry Numbering Committee (ATIS INC)	INC is a standing committee of the Alliance for Telecommunications Industry Solutions (ATIS) and 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.
North American Numbering Plan (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).

North American Numbering Plan Administration (NANPA)	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.
North American Numbering Plan(NANP)	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.
Non-Fixed Location Service	A device or service that can operate from more than one location.
Numbering Plan Area (NPA)	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. Geographic NPAs are NPAs which correspond to discrete geographic areas within the NANP Area. Non-geographic NPAs 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.

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.
Roaming	Roaming occurs when a wireless End User is away from the rate center's assigned geographic number's normal Public Safety Answering Point (PSAP).
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 service (FCC 00-104, § 52.5 (i)).

Participants in pANI IMG
September 22, 2006 – November 30, 2006

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Cansler, Mike	ATT
Carpenter, Jay	1800AFTA
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Carroll, James	Qwest
Castagna, Jim	Verizon
Cerrati, Kathleen	Verizon
Contillo, Nicole	T-Mobile
Cummings, John	Vonage
Dalton, Laura	Verizon
Deleon, Conrad	SBC
Del Sesto, Ron	Vonage
Dickinson, Dick	TCS
Emard, Jean-Paul	ATIS
Emmer, Rosemary	Sprint Nextel
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Jones, Marilyn	FCC
Jones, Rick	NENA
Jordan, Debbie	Bell South
Kimbro, Percy	ATT
Koutsky, Tom	NANC
Lancaster, Mark	ATT
Lee, Jason	Verizon
Lott, Sandra	Embarq
Manning, John	NeuStar NANPA
McNamer, Natalie	T-Mobile
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Putnam, Amy	NeuStar Pooling
Retka, Mary	Qwest
Ripenkroger, Karen	Sprint Nextel
Ryan, Fran	Sprint Nextel
Saeaglio, John	ATT
Sevigny, Shannon	NeuStar Pooling
Sharp, Mary	Intrado
Shaughnessy, Bill	Bell South
Shepard, Jim	HBF Group
Sherwood, Susan	Verizon Wireless
Smith, Dana	Verizon Wireless
Smith, Robin	Verizon
Stork, Maureen	Verizon
Struthers, Brent	NeuStar
Swett, Beth	Cingular
Tiffany, Sue	Sprint Nextel
Weber, Florence	NeuStar Pooling
Whaley, Mike	Qwest
Williams, Marty	Level 3
Williamson, Bob	WA UTC

Previous Participants in pANI IMG

Atkinson, Robert	NANC Chair (Ret)	(Participated in original pANI IMG)
Balch, Mike	IUB	(Participated in original pANI IMG)
Bishop, Barry	NeuStar	(Participated in original pANI IMG)
Blue, Deborah	FCC	(Participated in original pANI IMG)
Booth, Tim	NeuStar	(Participated in original pANI IMG)
Brown, Regina	FCC	(Participated in original pANI IMG)
Davis, Richard	Cingular	(Participated in original pANI IMG)
Guerra, George	AT&T	(Participated in original pANI IMG)
Hilquest, Hank	ATT	(Participated in original pANI IMG)
Hunter, Dena	Level 3	(Participated in original pANI IMG)
Jefferson, John C.	AT&T	(Participated in original pANI IMG)
Kerrington, Jennifer	MCI	(Participated in original pANI IMG)
Knox, Hoke	Sprint (Ret)	(Participated in original pANI IMG)
Mamakos, Louis	Vonage	(Participated in original pANI IMG)
McGarry, Tom	NeuStar	(Participated in original pANI IMG)
McHugh, John	OPASTCO	(Participated in original pANI IMG)
Napolitano, Maureen	Verizon	(Participated in original pANI IMG)
Newman, Julie	Cingular	(Participated in original pANI IMG)
Stoffels, Paul	AT&T	(Participated in original pANI IMG)
Sullivan, Douglas P.	Verizon	(Participated in original pANI IMG)