August 14, 2009

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12th Street, SW, Room TW-A325  
Washington, DC 20554

Re: WC Docket No. 09-109

Dear Ms. Dortch:

Attached please find NeuStar, Inc.’s Response to Telcordia Technologies, Inc.’s Request that NANC Resolve Dispute Concerning Necessity of Adding Certain URI Codes for the Completion of Telephone Calls, a copy of which we ask be placed in WCB Docket No. 09-109.

Sincerely,

Thomas J. Navin
August 14, 2009

VIA OVERNIGHT MAIL

Honorable Betty Ann Kane
Chairman
District of Columbia Public Service Commission
1333 H Street, N.W., West Tower 7th Floor
Washington, DC 20005

Don Gray
Telecommunications Specialist
Nebraska Public Service Commission
1200 N Street
Lincoln, NE 68508

Thomas M. Koutsky
Chairman, North American Numbering Council
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Opposition to Telcordia’s Request that NANC Resolve Dispute Concerning Necessity of Adding Certain URI Codes for the Completion of Telephone Calls

Dear Chairman Kane, Mr. Gray, and Chairman Koutsky:

In 2008, as it had done hundreds of times over the previous decade, the North American Numbering Council’s (NANC’s) Local Number Portability Administration Working Group (LNPA WG) approved three change orders—NANC Change Orders 429, 430, and 435—to include three optional data parameters into the Number Portability Administration Center (NPAC) database. These data—one for Voice Uniform Resource Identifiers (Voice URI), one for Multimedia Messaging Services (MMS) URI, and one for Short Messaging Service (SMS) URI—facilitate IP-IP services and thereby accommodate the technological evolution of the NPAC database as envisioned by Congress and the Federal
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Communication Commission (FCC or Commission).¹ Pursuant to the LNPA WG’s approval, and following standard protocol and procedure for updating the NPAC database, the North American Portability Management LLC (NAPM LLC) and NeuStar, Inc. (NeuStar)—the database’s administrator—recently negotiated Amendment 72 to each of their regional Contractor Services Agreements for NPAC/SMS (the Master Agreements), which authorized implementation of the three data parameters into an already-existing NPAC data field.

Now, in an unprecedented effort to circumvent the standard process followed by the NANC and NAPM LLC in approving new data fields, Telcordia Technologies, Inc. (Telcordia) requests that the NANC strike down Change Orders 429, 430, and 435. Telcordia claims that the Change Orders are “procedurally defective” in that the NANC or the Commission—and not the LNPA WG or the NAPM LLC—must make a formal and explicit finding that “information is necessary to route telephone calls” in order for data to be included in the NPAC.² Telcordia further argues that even if the LNPA WG and NAPM LLC possess such authority, the Change Orders violate 47 C.F.R. § 52.25(f) because the new fields are not “necessary to route telephone calls.”³

These arguments are completely unfounded. In fact, the request to reverse the decision to add these data contradicts more than twelve years of precedent regarding the proper procedure for updating the NPAC database. Moreover, the Change Orders are consistent with Section 52.25(f). Telcordia’s narrow reading of

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¹ In re Telephone Number Requirements for IP-Enabled Services Providers, Local Number Portability Porting Interval and Validation Requirements, IP-Enabled Services, Telephone Number Portability, Report and Order, Declaratory Ruling, Order on Remand, and Notice of Proposed Rulemaking, 22 FCC Rcd 19531, 19544 (2007) (Telephone Number Portability Order) (determining “to ensure that consumers retain [their local number portability (LNP)] benefit as technology evolves” because the Commission “continues[s] to believe that Congress’s intent is that number portability be a ‘dynamic concept’ that accommodates such changes”) (citing Telephone Number Portability; CTIA Petitions for Declaratory Ruling on Wireline-Wireless Porting Issues, CC Docket No. 96-116, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, 18 FCC Rcd 23697, 23708 (2003) (discussing the reasonableness of differences in porting obligations due to differences in the technological feasibility of different types of porting) (Intermodal Number Portability Order)).


³ Id.
the terms “telephone call” and “necessary” is simply incompatible with state and federal case law, Commission practice, and Congressional intent.

The Commission established NANC, in part, to break up the Bell Communications Research (Bellcore) monopoly over numbering databases, and NeuStar owes its existence to the Commission’s effort to interject competition into numbering database administration. Telcordia—the successor-in-interest to Bellcore that still operates the Local Exchange Routing Guide (LERG)—is seeking regulatory protection for the IP-based routing database it is deploying for the Country Code 1 ENUM LLC. Telcordia’s goal, simply stated, is to prevent IP-routing information from being included in the NPAC database in order to eliminate the NPAC as a competitive option for carriers seeking to route traffic using Internet-protocol technology.

In the end, Telcordia’s request fails to offer any compelling reason for the NANC to take the unprecedented step of overturning the reasonable decision of the LNPA WG and NAPM LLC to include the Voice, SMS, and MMS URIs in the NPAC database.

I. THE NANC SHOULD NOT INTERFERE WITH THE LONGSTANDING DATA FIELD APPROVAL PROCESS.

Telcordia argues that the LNPA WG and the NAPM LLC did not possess the authority to add the Voice, SMS, and MMS URIs to the NPAC database. In particular, Telcordia argues that “Change Orders 429, 430 and 435 cannot lawfully be implemented in the NPAC dataset without an express NANC or FCC finding that these URIs are ‘necessary to route telephone calls to telecommunications carriers’.”

However, in approving the implementation of those data parameters, the LNPA WG and NAPM LLC followed the process that they have used—and that has been implicitly approved by the NANC—without complaint for hundreds of change orders over more than a decade since the inception of the NPAC database. There exists no reason to interfere now with this process.

Pursuant to its statutory mandate in Section 251 of the Communications Act of 1934, as amended, the Commission, in its First LNP Order, adopted rules to

4 Id. at 6.
regulate local number portability (LNP) administration. In that order, the Commission delegated certain authority over LNP issues to the NANC. The NANC, as the FCC’s website states, “conducts most of its business” through its working groups. These groups are open to any interested party and operate by consensus just as the NANC does. Moreover, even when the NANC is meeting irregularly, the working groups continue to meet so that any developments can be addressed in a timely manner. In this case, the LNPA WG meets monthly and thus can render decisions quickly and efficiently using the same procedures as the NANC to ensure that the database remains current with technological advancements.

The NANC Operating Manual provides that theLNPA WG’s mission is to be “responsible for the business functionality of the national LNP system and how Service Providers inter-operate with it.” The Operating Manual goes on to state

(Continued ...)


7 Id. at 8401-02; see also In re Telephone Number Portability, Second Report and Order, CC Docket No. 95-116, 12 FCC Rcd 12281, 12289 (1997) (Second LNP Order) (“In the [First LNP Order], the Commission directed the NANC to recommend one or more independent, non-governmental entities that are not aligned with any particular telecommunications segment, to serve as local number portability administrator(s). The Commission also directed the NANC to make recommendations regarding the administration selection process, the duties of local number portability administrator(s), the location of regional databases, the overall national architecture, and technical specifications for the regional databases.”).


10 Id. at 8, 20. As the NANC Operating Manual makes clear, consensus is not the same as unanimity. See id. at 8 (“When a decision must be made and unanimity is not possible, NANC decisions will be made by consensus.”).

11 In general, the LNPA WG meets in person or by conference call every month. In contrast, the NANC meets less frequently and not always at regular intervals. For example, nearly eighteen months passed between the NANC’s two most recent meetings.

12 NANC Operating Manual at 19.
that the “LNPA WG was given the charter by the North American Number Council (NANC) for implementing Local Number Portability on a national level,” and as part of that role “is ... responsible for defining the requirements for the national Number Portability Administration Center (NPAC) Service Management System (SMS) and how it interfaces to each Service Provider’s local LNP system to enable LNP.”

The Commission also established an important role for the NAPM LLC in number portability management. By the time the First LNP Order was adopted, carriers throughout the country already had formed LLCs and begun negotiations on agreements with potential Local Number Portability Administrators (Administrators) (i.e., Master Agreements). As a result, the NANC chose to forego an independent review process, and, based on the LLCs’ recommendations, advised the Commission that Lockheed-Martin IMS (LMIMS) and Perot Systems (Perot) should be selected as the Administrators, subject to completion of negotiations regarding the Master Agreements.

In its Second LNP Order, the Commission adopted this recommendation, as well as NANC’s recommendation that the NAPM LLCs “provide immediate oversight and management of the [Administrators].” The Commission noted that “the LLCs were responsible for negotiating the contracts with their respective local number portability administrators,” such that neither the NANC nor the Commission took a role in those negotiations or otherwise reviewed or approved the Master Agreements that govern the technical requirements of the NPAC. As the Commission explained, there was no indication that NANC or Commission oversight or review of the agreements “would be preferable to LLC oversight,” as the LLCs are “best able to provide immediate oversight of” the Administrators.
The Commission provided that the NANC should have the more limited role of reviewing and overseeing the LLCs’ management of the Administrators, subject to Commission review.\textsuperscript{20}

This oversight regime was also specifically applied to the change management process governing modifications to the LNP “architectural, technical and operational standards” and “related specifications and processes.”\textsuperscript{21} The FCC adopted the NANC’s recommendation that the NANC be authorized “to approve or disapprove all [NPAC] changes, and that each respective regional LLC manage implementation of these changes with its respective [Administrator].”\textsuperscript{22} The Commission explained that “each LLC is the entity with the greatest expertise regarding the structure and operation of the database for [each] region,” and that, without LLC oversight of “database system enhancements and other modifications,” the LLCs’ expertise would be wasted, running “the risk that necessary modifications to the database system may be delayed.”\textsuperscript{23}

Since the inception of the NPAC, the process for determining whether new fields, parameters, or data elements should be added to the database has remained the same. First, the LNPA WG, on behalf of the NANC, considers the addition of new fields, parameters, elements and other changes to the database. Then, those changes that the LNPA WG approves are forwarded to the NAPM LLC for its consideration. As mentioned supra, this same process has been implemented hundreds of times with respect to Change Orders since national LNP was implemented in the 1990s. This is the procedure that the NANC, through its LNPA WG, has used to determine the information that should be included in the database, as required under FCC rules. Nowhere do the FCC rules require a separate, explicit finding that information is “necessary to route telephone calls.” Rather, the NANC, through its LNPA WG, carries out its role under the rules and makes the requisite findings through LNPA WG approval of additions to the database. Neustar is not

\textsuperscript{20} Id. at 12345; see also 47 C.F.R. § 52.26(b)(2) (stating that the LLCs “shall manage and oversee the [Administrators], subject to review by the NANC”); id. § 52.26(b)(3) (“The NANC shall provide ongoing oversight of number portability administration, including oversight of the regional LLCs, subject to Commission review.”).

\textsuperscript{21} Second LNP Order, 12 FCC Rcd at 12321.

\textsuperscript{22} Id.

\textsuperscript{23} Id. at 12346.
aware of any instance since the inception of the NPAC that either the NANC or its LNPAWG has made the separate finding that Telcordia asserts—without supporting authority—is necessary. Even in an instance when the FCC directly approved of an addition, no entity made the separate explicit finding that Telcordia claims must be made prior to any addition to the database. To accept Telcordia’s arguments would undermine the validity of all of the change orders that added information to the database over more than a decade.

In this instance, the industry and other stakeholders have been considering the inclusion of the Voice, MMS, and SMS URIs in the NPAC database for a number of years. In 2004, the LNPAWG began consideration of Change Order 400, which proposed adding four IP parameters to an already-existing field in the NPAC database, including those enabling Voice, SMS, and MMS data. The working group reached consensus that Change Order 400 should be included in the NPAC database in an “inactive state.” In 2005, the Commission directed that this Change Order be held in abeyance, but in a February 4, 2008 letter, the Chief of the Wireline Competition Bureau—relying on the Commission’s action extending LNP obligations to interconnected VoIP providers—informed the NANC Chair that the “industry could reconsider Change Order 400 rather than continue to hold in abeyance its consideration.” In doing so, the Wireline Bureau Chief gave the “green light” to the industry to include the new IP routing information in the NPAC database if it deemed such action appropriate.

Shortly after the abeyance was lifted, the industry began reexamining these issues. In May 2008, the LNPAWG separated Change Order 400 into four separate orders, one for each IP data parameter. Change Order 429 addresses Voice URI, Change Order 430 addresses MMS URI, Change Order 431 addresses PoC URI, and Change Order 432 addresses Presence URI. A month later, the LNPAWG also added Change Order 435 to address SMS URI. Early this year, the LNPAWG reached consensus that three of the IP data parameters, i.e., Change Orders 429, 430, and 435, should be forwarded to the NAPM LLC for consideration for


26 Letter from Dana R. Shaffer, Chief, Wireline Competition Bureau, to Thomas M. Koutsky, Chair, North American Numbering Council at 1 (Feb. 4, 2008) (Shaffer Letter).
inclusion in the NPAC. The NAPM LLC then approved Change Orders 429, 430, and 435 and asked NeuStar to include them in the NPAC via Amendment 72 to the Master Agreements.

The LNPA WG and the NAPM LLC plainly had authority to implement the changes to the NPAC database, and they did so by following procedures used for over a decade. At no time prior to Telcordia’s recent petition to the Commission\(^\text{27}\) has any party complained that the change order approval process was flawed. Only now, while trying to hinder competition by precluding an IP routing option for carriers, does Telcordia raise this process as an issue.\(^\text{28}\)

If the NANC now steps in to recommend overturning the reasonable decisions of the LNPA WG and the NAPM LLC, it would significantly hinder the technological evolution of the database and undermine Congressional intent to make number portability a “dynamic concept” that accommodates new technology. The data field approval process has worked well for over a decade, and there exists no reason to alter that process now.\(^\text{29}\)

II. COMMISSION RULE 52.25(F) DOES NOT FORECLOSE ADDITION OF THE INTERNET ROUTING INFORMATION TO THE NPAC DATABASE.

Telcordia claims that 47 C.F.R. § 52.25(f) renders the addition of the Voice, MMS, and SMS URI parameters to the NPAC database unlawful because they are not “necessary to route telephone calls.” Specifically, Telcordia asserts that at least

\(^{27}\) See Petition of Telcordia Technologies to Reform or Strike Amendment 70, WC Docket No. 07-149 (filed May 20, 2009).

\(^{28}\) Telcordia’s longstanding relationship with the NANC and familiarity with its processes undermine the credibility of its request. As the provider of the Local Exchange Routing Guide and successor to Bellcore, the former administrator of the North American Numbering Plan, Telcordia has been participating in the NANC and the LNPA WG for more than a decade. Yet, at no time in the past did Telcordia assert that the LNPA WG and the NAPM LLC lacked the authority to make changes to the information included in the NPAC database.

\(^{29}\) Although the process has worked well to solve complex technological issues to the benefit of the industry and consumers, if the Commission or the NANC believes that the process should be changed, in order to avoid having to revisit change orders adopted over more than a decade, the process should only be changed prospectively.
two of these parameters, and possibly all three, do not involve “telephone calls” and that they are not “necessary” in the NPAC because traffic can be routed without these data. Telcordia’s proposed restrictive interpretation of Rule 52.25(f) fundamentally misconstrues the Communications Act and Commission precedent and would undermine Commission rules and policy objectives if adopted.

A. The term “telephone calls” is broader than “telecommunications services.”

Telcordia contends that Change Orders 430 and 435 violate Rule 52.25(f) because the rule “does not extend to non-telecommunications services” and “MMS and SMS are not telecommunications services.” This argument is meritless—both Congress and the Commission have used the term “telephone call” when referring to services that could be either “telecommunications services” or “information services” under the 1996 Act definitions. Indeed, the term has been used to mean more than just basic voice transmission service on numerous occasions. For example, the Telecommunications Consumer Protection Act of 1991, which

30 Telcordia Request at 11-12. Telcordia appears to concede that Voice URI falls within its overly restrictive definition of “telephone call.” See id. at 13 (“[S]etting aside any issues of the regulatory classification of VoIP services, with respect to Change Orders 430 and 435, it is difficult to see how they can meet the standard of ‘necessary to route telephone calls to the appropriate telecommunications carriers.’”).

31 See 47 U.S.C. § 153(46) (“The term ‘telecommunications service’ means the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.”); id. § 153(43) (“The term ‘telecommunications’ means the transmission, between or among points specified by the user, of information of the user’s choosing, without change in the form or content of the information as sent and received.”).

32 See 47 U.S.C. § 153(20) (“The term ‘information service’ means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.”).


protects consumers from various telemarketing practices, prohibits “telephone calls” that include the transmission of information services consisting of “artificial or prerecorded voice” messages to residential lines. In implementing the TCPA, the Commission has specifically stated that the TCPA’s prohibition on autodialed telephone calls “encompasses both voice calls and text calls to wireless numbers including, for example, short message service (SMS) calls.” Moreover, Section 223 of the Communications Act makes it unlawful to place “telephone calls” that deliver pre-recorded “dial-a-porn” messages. And based on this broad interpretation by both Congress and the Commission, the industry has likewise recognized that “calls” means more than just telecommunications services.

Recent court opinions also support a broad interpretation of the term “telephone call.” In particular, both the Ninth Circuit and the Arizona Supreme Court have held that the TCPA’s prohibition on certain telemarketing calls extends to text messages. As the Arizona Supreme Court explained, “[t]he TCPA does not limit the attempt to communicate by telephone to two-way real time voice ‘intercommunication’... It is the act of making a call, that is, of attempting to communicate to a cellular telephone number using certain equipment, that the TCPA prohibits. Whether the call had the potential for a two-way real time voice communication is irrelevant.” The Ninth Circuit similarly stated, “[g]iven that the

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35 Rules and Regulations Implementing the Telephone Consumer Protection Act of 1991; Request of ACA International for Clarification and Declaratory Ruling, 23 FCC Rcd 559, 560 (2008); see also 47 C.F.R. § 64.1200 et seq.


38 Letter from Dan A. Sciullo, Berenaum Weinshienk, to Marlene Dortch, Secretary, Federal Communications Commission at 7 (June 18, 2009) (NAPM LLC Ex Parte).


40 Joffe, 211 Ariz. at 329-30.
TCPA was enacted to regulate the receipt of automated telephone calls, Congress used the word ‘call’ to refer to an attempt to communicate by telephone.41 Were the Commission now to adopt Telcordia’s restrictive definition of “telephone calls,” it would contradict these decisions and limit enforcement of the TCPA.

Additionally, the nature of the NPAC database itself supports this reading of Rule 52.25(f). Since its inception, the NPAC database has included fields related to information services. “Software Release 1.0” included fields associated with Custom Local Area Signaling Services (CLASS),42 Line Information Data Bases (LIDB),43 Calling Name (CNAM),44 and Inter-Switch Voice Messaging Message Waiting Indicator (ISVM MWI).45 “Software Release 2.0” added fields to permit routing of Wireless Short Message Service (SMS) text messaging.46 Although some of these fields are related to telecommunications services, ISVM and SMS are clearly associated with information services; nevertheless fields supporting these services have been included in the NPAC since its earliest years. Telcordia’s assertion that only information related to the routing of telecommunications services is permitted to be included in the NPAC cannot be correct—the term “telephone calls” as used in Rule 52.25(f) broadly includes both telecommunications and information services.


42 The CLASS field indicates the destination switch for auto call return.

43 The LIDB field indicates the LIDB database containing the ported number line information (e.g., for performing alternate billed call setup and billing).

44 The CNAM field indicates the CNAM database with information about the ported number to provide the caller name in caller ID information.

45 ISVM, a voice mail service provided on a centralized basis, is an information service. Like plain voice mail, this service allows users to store information and interact with stored information unrelated to the placing of a telephone call. These characteristics place voice mail, as well as electronic mail, firmly in the enhanced (information) service category. See Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry), 84 FCC.2d 50, 54-55 (1980).

The new SMS and MMS URI parameters are analogous to these other data fields that are not directly related to the routing of voice traffic yet have long been included in the NPAC database. Even if, as Telcordia claims, these fields “represent[] a wholly separate technology and network outside of the PSTN,” they nevertheless permit the routing of services other than traditional circuit-switched voice services and thereby facilitate portability just as some of the current database fields do. The superficial differences between the URI parameters and the current data fields are simply inapposite. Accordingly, they further the NPAC’s essential purpose as contemplated by the Commission and the LNP A WG, and thus do not violate Commission Rule 52.25(f).

Ultimately, the Commission’s use of the broad term “telephone call”—as opposed to “telecommunications services”—in Rule 52.25(f) indicates that it recognized the need for some flexibility in how the number portability database should evolve with the development of new technologies beyond then existing circuit-switched voice telephone service. Indeed, this interpretation is consistent with the Commission’s belief that “Congress’s intent is that number portability be a ‘dynamic concept’ that accommodates [technological] changes.” It is also consistent with the Commission’s general policy favoring the rapid deployment of next-generation communications services. The addition of the Voice, MMS, and SMS URI parameters to the NPAC database is necessary to facilitate the economical and efficient provision of these burgeoning services. Thus, to read Rule

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47 Telcordia Request at 14 (quoting Report and Recommendation on NANC Change Orders 399 & 400, Future of Numbering Working Group at 32-33 (June 10, 2005) (FoN WG Report)).

48 Telcordia also states, “As the Future of Numbering Working Group report observed, ‘the NANC may be embarking upon a groundbreaking venture to allow IP-to-IP routing information to reside in this “telecommunications services” database.’” Telcordia Request at 13 (quoting FoN WG Report at 26). However, the statement is misleading. The FoN WG itself did not make this observation. Rather, the FoN WG Report includes two sections addressing the arguments for and against adopting Change Order 400: one drafted by industry participants supporting Change Order 400, and one drafted by those opposing it, including Telcordia. See FoN WG Report at 9; NANC Future of Numbering Working Group, Concerns and Issues re NANC Change Order 400 (May 11, 2005) (listing Adam Newman from Telcordia Technologies, Inc. as a “Source”). This statement was lifted from the “Opposition” section of the Report and thus in no way reflects the views of the FoN WG. Indeed, Telcordia’s Request is riddled with such misleading claims.

49 Telephone Number Portability Order, 22 FCC Rcd at 19544 (citing Intermodal Number Portability Order, 18 FCC Rcd at 23708 (discussing the reasonableness of differences in porting obligations due to differences in the technological feasibility of different types of porting)).
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52.25(f) consistently with the Communications Act’s use of the term, the  
Commission’s rules, as well as the Commission’s understanding of the nature of the  
NPAC database, the term “telephone call” must encompass other non-circuit­  
switched voice services that also require or are affected by “number portability.”

B. Telcordia’s reading of “necessary” is overly restrictive.

Telcordia further asserts that Rule 52.25(f) prohibits the inclusion of the URI  
parameters in the NPAC database because they are not “necessary” to route  
telephone calls. The extent of Telcordia’s thin analysis is that because calls are  
completed today without this information, these data are not “necessary.”  
According to Telcordia, the Commission “made clear” in Rule 52.25(i) “that  
information not necessary to the routing of telephone calls to the appropriate  
telecommunications carriers can be placed in separate, downstream databases that  
are not part of the NPAC database, but that combine information from the NPAC  
database with other data.”\(^{50}\) Again, Telcordia’s view constitutes an overly narrow  
interpretation of the Commission’s rules.

First, the limiting language in Section 52.25(f) was never intended to  
exclude alternative routing information. Instead, the limitation was put in place  
to prevent information that had nothing to do with number portability or call routing  
generally from being included in the database. Indeed, to understand properly the  
scope of rule 52.25(f), the stated limitation must be read in the context of the First  
LNP Order, which first articulated the rule. In that order, the FCC stated:

We believe that, at this time, the information contained in the number  
portability regional databases should be limited to the information necessary  
to route telephone calls to the appropriate service providers. The NANC  
should determine the specific information necessary to provide number  
portability. To include, for example, the information necessary to provide  
E911 services or proprietary customer-specific information would  
complicate the functions of the number portability databases and impose  
requirements that may have varied impacts on different localities. For  
instance, because different localities have adopted different emergency  
response systems, the regional databases would have to be configured in  
such a fashion as to provision the appropriate emergency information to

\(^{50}\) Telcordia Request at 11.
each locality's particular system. Similarly, special systems would need to be developed to restrict access to proprietary customer-specific information. In either instance, the necessary programming to add such capabilities to the regional databases would complicate the functionality of those databases. 51

Thus, the rule was designed to ensure that the database only contained information related to routing, as opposed to E911 or CPNI information. It was not designed to exclude information otherwise helpful to effectively and efficiently route telephone calls.

Rule 52.25(i)—which provides that “[i]ndividual carriers may mix information needed to provide other services or functions with the information downloaded from the regional databases at their own downstream databases”—does not suggest otherwise. Rather, the rule simply makes clear that although information that has nothing to do with routing generally—such as E911 and CPNI information—should not be included in the NPAC database, it still may included in the downstream databases. The First LNP Order explains:

Because we require open access to the regional databases, it would be inequitable to require carriers to disseminate, by means of those databases, proprietary or customer-specific information. We therefore contemplate that the regional deployment of databases will permit individual carriers to own and operate their own downstream databases. These carrier-specific databases will allow individual carriers to provide number portability in conjunction with other functions and services. To the extent that individual carriers wish to mix information, proprietary or otherwise, necessary to provide other services or functions with the number portability data, they are free to do so at their downstream databases. We reiterate, however, that a carrier may not withhold any information necessary to provide number portability on the grounds that such data are combined with other information in its downstream database; it must furnish all information necessary to provide number portability to the regional databases as well as to its own downstream database. 52

51 First LNP Order, 11 FCC Rcd at 8403-04.

52 Id. at 8404.
In other words, Rule 52.25(i) offers no support to Telcordia’s claim that information helpful to effectively and efficiently route telephone calls must be excluded from the NPAC database.

The Commission’s intent is further clarified by its statements that the NPAC should contain the “specific information necessary to provide number portability,” and that number portability should be provided “without impairment of quality, reliability, or convenience,” as well as the statement in the 1997 LNPA WG Report that the NPAC is to be used “to provide billing, routing, and/or rating.” The “information necessary to provide number portability” from one carrier to another “without impairment of quality, reliability, or convenience” is much broader in scope than Telcordia’s definition would allow.

Second, it has always been recognized that the concept of number portability—via the NPAC database—encompasses more than the mere routing of telephone calls. The FCC elaborated upon the scope of the database in the Second LNP Order, which cited the LNPA WG Report and incorporated it into the FCC’s LNP rules. Appendix D to the LNPA WG Report provides that NPAC users must be carriers or entities under contract with a carrier “to provide billing, routing, and/or rating” services for that carrier. Appendix D further states that “[t]he above criteria limits [sic] NPAC access to those with an operational need for NPAC service in order to provide local number portability.” Thus, if the NPAC were limited solely to the information “necessary” to route real-time voice transmissions as Telcordia argues, it would not contain nearly enough information to achieve its essential purpose—number portability. For example, as noted supra in Section A, the NPAC contains fields associated with CLASS, LIDB and CNAM services.

53 Id. at 8403.
54 Id. at 8366-67.
56 The LNPA WG Report is incorporated by reference at 47 C.F.R. § 52.26(a).
58 Id.
among others, all of which enable number portability but would not meet Telcordia’s overly narrow definitions. A logical reading of the FCC rules and orders requires that the NPAC contain all of the information necessary to carry out the full set of number portability objectives enumerated in the FCC’s orders and regulations, including the LNPA WG Report.

Third, Telcordia’s narrow interpretation of “necessary to route telephone calls” would prohibit the inclusion of any new technologies for the routing of telephone calls in the NPAC database because there will always exist the possibility of using the legacy circuit-switched network to facilitate routing. For example, the Voice URI enables the routing of a voice call that both originates and terminates with a different carrier as an IP call to be routed entirely as an IP call. However, such a call could be routed without the Voice URI by transcoding the call data from its originating IP format to the time division multiplexing (TDM) format used by circuit-switched networks, routing the call to the terminating provider, and then transcoding the call back to its IP format for termination to the end user. Following Telcordia’s logic, even though this latter process is far less efficient, it must be maintained because, in light of its mere existence, any different process—including Voice URI—is technically not “necessary.” Such ossification of number portability technology is directly at odds with Congress’s intent to make number portability a “dynamic concept.” Indeed, the FCC surely could not have intended such an absurd result when it sought to exclude 911 information and CPNI from the NPAC.

59 For example, the NPAC also contains service provider type to distinguish between wireless and wireline telephone numbers; alternate service provider ID information to indicate when a carrier has given a number to a reseller, MVNO, VoIP provider, or other provider; and an activation timestamp to show when a ported number record was activated. All of these enable number portability but are not used for call routing in the strict sense urged by Telcordia.

60 See Telcordia Request at 13-14 (“All of these types of messages—IP-IP voice traffic, MMS and SMS—can be completed today using the NPAC only to identify the service provider ID associated with a ported number.”).

61 On several occasions, Telcordia indicates that the FoN WG determined that Change Orders 429, 430, and 435 are not necessary to route telephone calls. See, e.g., Telcordia Request at 14 (“This was expressly addressed in the 2005 Future of Numbering Working Group Report on NANC Change Order 400: ‘No additional information beyond that currently in the NPAC is needed to complete telephone calls to the ported numbers through the PSTN.’” (quoting FoN WG Report at 25)); see also id. at 4. However, the FoN WG made no such conclusion. As explained above, see supra n. 48, Telcordia selectively quotes language from the “Opposition” section of the FoN WG Report that merely represents the views of industry opponents—including Telcordia itself—regarding Change Order 400, not the FoN WG.
All three IP parameters sought to be added to the NPAC database facilitate the more efficient routing of calls to numbers that have been pooled or ported from one carrier to another, some of which may be used for VoIP or other IP services. As the carriers point out, prohibiting such IP parameters because carriers could revert to the legacy network can lead to transcoding and other errors that will only increase in frequency as new IP services are deployed. In fact, many IP services do not function if transcoded to TDM; they must be transmitted in an IP format from origination to termination. If these forms of communication are ever to cross from one network to another, IP routing information must be available to the providers. Accordingly, Telcordia’s insistence that a carrier use the default legacy network violates the Commission’s directive that number portability should be provided “without impairment of quality, reliability, or convenience,” as well as the Commission’s goal that “any long-term [portability] method ensure that carriers have the ability to route telephone calls and provide services to their customers independently from the networks of other carriers.” As the Commission has explained, “[r]equireng carriers to rely on the networks of their competitors in order to route calls can have several undesirable effects.”

Moreover, contrary to Telcordia’s assertion, the existence of fledging ENUM directories does not render it inappropriate to include the new fields in the NPAC database. As the “Support” section of the FoN WG Report states:

ENUM and NANC 400 have little technological overlap at this time and in fact they are complementary. Furthermore there are many outstanding issues with regard to ENUM deployment that will effect [sic] how and if carriers choose to use it as a tool for resolving TNs/ported TNs to URI mapping. To simply assume that issues such as those resolved by NANC 400 (TN to URI provisioning and update synchronization for ported and pooled TNs) will be efficiently and cost effectively resolved somewhere down the road could prove to be rather short sighted. NANC 400 can be

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62 NAPM LLC Ex Parte at 5.
63 First LNP Order, 11 FCC Rcd at 8366-67.
64 Id. at 8380
65 Id.
complementary and likely beneficial to any routing solution that eventually entrenches itself (this data will always need to be provisioned in some manner). 66

In other words, it is unclear what course ENUM may take. While some carriers may be attracted to one ENUM directory, other carriers may want to have alternative options. Here, Telcordia is attempting to preclude an IP routing option for carriers in order to gain an advantage for the ENUM database it is deploying for the CCI ENUM LLC.

Fourth, facilitating IP to IP routing in the NPAC complies with the FCC’s Interconnected VoIP LNP Order. In that order, the Commission determined “to ensure that consumers retain [their LNP] benefit as technology evolves [because] we continue to believe that Congress’s intent is that number portability be a ‘dynamic concept’ that accommodates such changes.” 67 Thus, for the first time, the Commission extended LNP obligations to interconnected VoIP providers. After the Wireline Competition Bureau Chief removed the abeyance on considering the addition of certain new fields, 68 including Internet Protocol end points in the LNP database, the NANC, through its LNP A WG and the NAPM LLC, acted to respond to the FCC’s Interconnected VoIP LNP Order. Therefore, Telcordia’s interpretation of Rule 52.25(f) is plainly contrary to the Commission’s rules and policies. 69


67 Telephone Number Portability Order, 22 FCC Rcd at 19544 (citing Intermodal Number Portability Order, 18 FCC Rcd at 23708 (discussing the reasonableness of differences in porting obligations due to differences in the technological feasibility of different types of porting)).

68 Shaffer Letter at 1.

69 Telcordia’s Request also provides that “[t]he June 2005 Future of Numbering Working Group Report highlighted competition concerns related to and arising from the inclusion of URI fields in the NPAC.” Telcordia Request at 15. Yet again, the language quoted by Telcordia comes from the “Opposition” section of the FoN WG Report and thus represents the views of industry opponents of Change Order 400—including Telcordia—and not the FoN WG. In any event, inclusion of the new URIs in the NPAC database will not lead to a monopoly that crowds out ENUM, but rather, will introduce a competitor in the market for IP-IP communications services. This, ultimately, is the motive behind Telcordia’s request—it merely wishes to keep new ENUM competitors out of the marketplace.
C. **Telcordia’s interpretation of Rule 52.25(f) would create unwanted consequences.**

As noted above, hundreds of modifications have been made to the NPAC since it began operation. However, were the Commission now to adopt Telcordia’s reading of Rule 52.25(f), many of these modifications—which have bestowed enormous benefits on the public—would be in jeopardy. As just one example, NANC Change Order 399 added SV type and Alternate Service Provider Identification (SPID) type indicator data fields. The latter information indicates when the carrier has given a telephone number to another operator such as a reseller, MVNO, or VoIP provider. Under Telcordia’s unduly narrow interpretation of Commission Rule 52.25(f), these optional data parameters would not have been permitted because they technically are not “necessary to route telephone calls.” Yet, not only did the FCC direct that this information be included in the NPAC, but this information has proven to be critical to law enforcement as it seeks to conduct searches as quickly and efficiently as possible to deliver accurate subpoenas without delay. Thus, Telcordia’s overly narrow interpretation of the rule would not only undercut existing Commission policies, but it would also undercut law enforcement’s ability to investigate criminal wrongdoing.

III. **CONCLUSION**

In sum, Telcordia’s request should be rejected and the determination by the LNPA WG and the NAPM to add IP routing information in the form of URIs to the NPAC should be allowed to stand. As demonstrated in Section I *supra*, the LNPA WG and the NAPM followed procedures that have been in place for more than a decade to approve modifications to the NPAC contracts. The NANC should not lightly permit a disgruntled vendor to overturn such long-standing procedures.

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70 See Navin Letter.

71 Attached as Appendix A are letters and emails from the United States Marshals Service of the US Department of Justice; the Office of the District Attorney of Rockingham County, New York; and the Special Investigations Division of the Montgomery County (MD) Police Department, all indicating the importance of Change Order 399.

72 It is important to note that Telcordia provides no support for its assertion that “some NANC members believed that 47 C.F.R. § 52.25(f) precluded including the URIs in the NPAC because they were not necessary for the routing of telephone calls.” *See* Telcordia Request at 5.
Further, the URIs in question are necessary to route telephone calls in compliance with Rule 52.25(f). Based upon both Commission and court interpretations, the term “telephone calls” is broader than Telcordia asserts. Indeed, such an interpretation has been followed since the inception of the NPAC. The URIs are also necessary for the routing of IP-based communications. Although some IP-based services such as VoIP can be transcoded for routing over the circuit-switched network, they can only do so with loss of quality and efficiency. Other IP-based services, however, must remain in an IP format from end-to-end; these cannot default to the PSTN for routing. URIs are clearly necessary to route these communications.

Telcordia’s self-serving request is nothing more than a veiled attempt to gain competitive advantage for itself at the expense of the efforts to advance the country’s communications infrastructure to meet the needs of the broadband world. Accordingly, the NANC should reject Telcordia’s effort to forestall the necessary evolution of the NPAC because that effort is blatantly against the public interest. Instead, the NANC should support the actions of the LNPA WG and the NAPM in promoting options for efficient IP-routing which, in turn, will spur demand for IP networks and applications and foster broadband deployment.

Sincerely,

[Signature]

Thomas J. Navin
Partner
May 9, 2008

By email to Bobby.Wiggins@Neustar.biz
Mr. Bobby Wiggins, Director of Fiduciary Services
LEAP Program Manager
Neustar, Inc.
46000 Center Oak Plaza
Sterling, VA 20166

RE: Addition of SPID Field to LEAP Database

Dear Mr. Wiggins,

I understand that you will soon be testifying before the carrier representatives to make a case for having the alternate SPID field available in LEAP. As you know, this is code that specifies when a carrier has given or resold a ten-digit telephone number to a VoIP provider, MVNO, cable provider or telecom reseller.

I cannot tell you how much unnecessary investigative delay and wasted resources – both law enforcement’s and communications carrier’s – not having this information available in LEAP has already cost. In nearly every investigation where the registered carrier does not provide services directly to the customer, we wind up needlessly preparing and serving subpoenas, court orders, or search warrants on the wrong company, only to learn the customer is not the communication provider’s that was served. Further, in life or death emergencies, this causes untold delay and inexcusable compromise to public safety.

LEAP does not currently give us this field. Its inclusion would immediately and measurably reduce the useless legal process, delay and wasted manpower described above. The addition of this information to the LEAP database would significantly benefit law enforcement, the public we serve, and each and every compliance office.

As a LEAP customer, the U.S. Marshals Service strongly supports this effort. Please contact me at 866-778-5378 ext. 7092 if there is any way our support can help accomplish this worthy and critical effort.

Sincerely,

Steven M. Lowenstein, Inspector & Legal Advisor
Investigative Operations Division
Technical Operations Group
Greetings,

My name is Josh Landers and I serve as a member of the Office of the District Attorney of Rockland County - NY. As a member of that office, I supervise applied and operational technologies including Court-Ordered Electronic Surveillance (ELSUR) and Subpoena Compliance with regard to telecommunications carriers.

As you may know, Rockland County is one of the several counties that surround the five boroughs of New York City. The Office of the District Attorney conducts a significant number of ELSUR cases each year with respect to the activities of its Narcotics Task Force and its County Intelligence Center.

I wish to inform you at our office and the investigative groups that I supervise strongly support the proposal to populate the Neustar database Alternate SPID field with additional and more granular carrier information. Our groups can be spared hours of additional research time with the addition of this information. In cases where time is of the essence, the value of the additional information is self-evident.

We applaud Neustar's efforts to drive this useful even fundamental improvement forward. Please advise me if our members can bolster your efforts by any additional communication or participation.

Respectfully yours,

J.K. Landers

Group Supervisor Josh Landers
Office of the District Attorney
Rockland County, New York
NTF Applied Technologies Unit
1 South Main Street - Suite 500
New City, NY 10956

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Mobile Number: (845) 629-5244
Fax: (845) 267-5100
E-mail: landersj@co.rockland.ny.us
Mr. Wiggins: In response to your request for feedback, I would like to say that Neustar’s LEAP product has significantly streamlined the portion of our telephone investigation process that pertains to proper carrier identification.

In the Montgomery County Police Department, LEAP is used by patrol officers, detectives, and at our Emergency Communications Center (ECC). All of our LEAP users have experienced a decrease in the amount of time it takes to identify the correct carrier for a given phone number. In the past, our personnel utilized www.fonefinder.net or www.telcodata.us in an attempt to learn the correct carrier. Since these websites are essentially operated by hobbyists, there was no guarantee of accurate information. After performing an initial inquiry on one of those websites, personnel who were aware of the manual IVR system would take the second step and call to see if their target number had been ported. In many cases, people weren’t even aware that the manual IVR system existed. I can only imagine the number of phone calls and subpoenas that were misdirected to carriers, delaying the process of obtaining the required information to pursue investigations.

Now that a majority of our personnel have become familiar with LEAP, the inefficient, two-step process of identifying a carrier is streamlined into a single online inquiry. This has been especially helpful at ECC where supervisors are frequently talking on the phone and operating a computer simultaneously. They can determine the official carrier of record for a target number without interrupting a phone conversation with field personnel or command staff. Although I am not able to point to any specific examples, I’m certain that during a hostage/barricade or kidnapping situation, ECC will determine the correct carrier in a much more timely fashion than they would using a website and the manual IVR.

In the immediate future, law enforcement agencies still have a need for additional information. The evolution of the VoIP market provides new challenges to investigators. In the case of VoIP, it would be an added benefit to have access to Service Types and Alternate SPID’s for assigned phone numbers. In fact, the ultimate desire of law enforcement would be to have online access to carrier information and current subscriber information with a single online inquiry. I realize this is a tall order that is outside the scope of Neustar’s current capability, but it is a real issue for investigators as we continue to face the explosive growth of the communications industry and the challenges that come with it.

Thank you for the opportunity to comment on our current situation and thanks also for your continuing support of law enforcement throughout the country.

_Sgt. Andy Dawson_

_Montgomery County Police Department_

_Special Investigations Division_

_2350 Research Blvd._

_Rockville, MD 20850_

_301-840-2436_