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Honorable Betty Ann Kane
Chairman, North American Numbering Council
District of Columbia Public Service Commission
1333 H Street NW, West Tower 7th Floor
Washington, DC 20005

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

RE: Further Reply in Support of Telcordia's Request that NANC Resolve Dispute Concerning Necessity of Adding Certain URI Codes for the Completion of Telephone Calls

Dear Chairman Kane and Mr. Gray:

Telcordia Technologies, Inc. ("Telcordia") hereby responds to the NANC Dispute Resolution Team's request that parties submit any further input, particularly with respect to what the Dispute Resolution Team termed "policy" questions cataloged in Section 3.4 of the 2005 Future of Numbering Working Group Report and Recommendations on Change Orders 399 and 400 ("2005 FoN WG Report on Change Orders 399 and 400"). As the Dispute Resolution Team Update demonstrates, any expansion of the NPAC database through Change Orders 429, 430 and 435 beyond the "necessary" data defined in 47 C.F.R. § 52.25(f) raises significant policy questions involving statutory interpretation, competition policy, and the evolution of telecommunications services.

SUMMARY

47 C.F.R. § 52.25(f) restricts the information in the NPAC database as follows:

"(f) The information contained in the regional databases shall be limited to the information necessary to route telephone calls to the appropriate telecommunications carriers. The NANC shall determine what specific information is necessary."

Telcordia's dispute raises two simple questions, either of which is a sufficient basis on which to uphold Telcordia's position:

- Did the NANC itself – or the Federal Communications Commission (“FCC” or “Commission”) – actually find the information added by Change Orders 429, 430 and 435 to be “necessary to route telephone calls to the appropriate telecommunications carriers”?
- Is this information “necessary to route telephone calls to the appropriate telecommunications carriers,” *i.e.*, is there some service that will not work without adding this information?

The record to date shows that:

- At no time during the considerations of Change Orders 429, 430 and 435 did the NANC itself – or the FCC – ever determine that the information added by these change orders was “necessary to route telephone calls to the appropriate telecommunications carriers.” This is undisputed.
- The process followed by the LNPA WG and NAPM LLC deprived the full NANC, especially its public interest members who may not participate (and cannot vote) in the LNPA WG, of the opportunity to consider and be consulted on these policy questions before Change Orders 429, 430, and 435 were implemented through a binding contract, Amendment 72. That is not permissible under rule 52.25(f), which directs that “NANC shall determine what specific information is necessary.”
- No evidence has been submitted at any point to show that Change Orders 429, 430 and 435 are “necessary to route telephone calls to the appropriate telecommunications carriers.” The burden should be on the proponents of added data to show that the information is necessary. To date, they have not met this burden.
 - Change Orders 429, 430 and 435 do not “fix” any services “broken” by porting. Thus, they cannot be “necessary to route telephone calls to the appropriate telecommunications carriers.”
 - Change Orders 429, 430 and 435 are optional and thus also cannot be “necessary to route telephone calls to the appropriate telecommunications carriers.”

As a matter of process, when there is a dispute over whether information meets rule 52.25(f)'s necessity test, the LNPA WG cannot make a finding in lieu of the NANC. Otherwise, public interest members of NANC can, as occurred here, be deprived of any decision-making role in advance. Here, the dispute was well-known and documented in the 2005 FoN WG Report on Change Orders 399 and 400. The LNPA WG's actions deprived the full NANC, especially its public interest members, of any decision-making role regarding these fields and the database expansion.

The record before the NANC is complete. To halt extension of the NPAC beyond the FCC's prescribed limits, and to avoid further anticompetitive behavior in the number portability and ENUM markets, NANC should immediately resolve this dispute.

The appropriate remedy is for the uniform resource identifier ("URI") fields added by Change Orders 429, 430 and 435 to be frozen, with no additional data added and no additional uses made of those fields, unless the NANC or the FCC at a future date makes a determination that this information is "necessary to route telephone calls to the appropriate telecommunications carriers."

To the extent some members of NANC may desire to allow the NPAC to be expanded to be relevant to an IP-IP world, such changes to the scope of the NPAC database must be done through an agency rulemaking, and cannot and should not be undertaken by the NANC or the NAPM LLC acting on its own. Pursuant to the Administrative Procedure Act, the FCC, with input from the NANC and interested stakeholders, is the proper body to consider and resolve those policy issues through amendment of rule 52.25(f).

I. NANC Must Suspend The Provisions of Amendment 72 Implementing Change Orders 429, 430 and 435 Before Conducting A Full Necessity Review.

Telcordia's dispute resolution petition alleges a narrow claim: That the URI fields contained in Change Orders 429, 430, and 435 were not permitted to be added to the NPAC in the absence of a NANC finding that they were "necessary to route telephone calls to the appropriate telecommunications carriers." 47 C.F.R. § 52.25(f). The FCC further specified, "The NANC shall determine what specific information is necessary." *Id.* When NANC last considered the inclusion of two of the three of these URIs in the NPAC, it reached no consensus that such fields were necessary to route telephone calls to the appropriate telecommunications carrier.¹ NANC has not deliberated on the matter since – and the FCC has not decided the issue in NANC's stead. Accordingly, unless and until NANC reaches such a decision, the use of these three URI fields in the NPAC must be suspended.

This is not a case in which the dispute over the legitimacy of inclusion of these fields in the NPAC took anyone by surprise. While the LNPA WG has handled many non-controversial field modifications, this one was not non-controversial. The 2005 FoN WG Report on Change Orders 399 & 400 summarized the arguments that these fields could not be included in the NPAC consistent with 47 C.F.R. § 52.25(f). Here, no one disputes that the LNPA WG did not take separate votes on including Change Orders 429, 430, and/or 435 in the NPAC database.² Over

¹ See Letter from Robert C. Atkinson, Chair, NANC, to Thomas J. Navin, Acting Chief, Wireline Competition Bureau, FCC (July 5, 2005), available at http://www.nanc-chair.org/docs/nowg/Jul05_Cover_Letter_to_Change_Orders_399-400.doc; Future of Numbering Working Group, *Report and Recommendation on NANC Change Orders 399 & 400* (revised June 10, 2005) at 30, available at http://www.nanc-chair.org/docs/nowg/Jun05_FoN_NANC_Change_Order_Report.doc ("2005 FoN WG Report on Change Orders 399 & 400"). The LNPA WG subsequently separated Change Order 400 into individual Change Orders 429, 430, 431 and 432.

² See Letter from John T. Nakahata, Counsel to Telcordia Technologies, Inc., to Thomas M. Koutsky, Chairman, NANC, FCC (May 26, 2009) at 5 ("*Telcordia Dispute Resolution Request*"); see also LNPA WG July 2008

objections, the working group instead simply ordered them by “priority” within a larger package of Change Orders and submitted them to the NAPM LLC for inclusion in the NPAC.

No matter what other discussion may have occurred, this is a failure of “due process” because it aborted the decision-making and dispute resolution processes. The NAPM LLC proceeded to execute a contract amendment after the LNPA WG, without full NANC approval, included these disputed Change Orders in a “prioritized” change order list. In doing so, the full NANC – including especially its public interest members, the state commission and state utility consumer advocate representatives – were deprived of any opportunity for renewed input and deliberation on precisely the policy questions that were outlined in the 2005 FoN WG Report on Change Orders 399 & 400 *before the NAPM executed a binding contract amendment with the Administrator.*

Under these circumstances – with this dispute already having been pending for over a year – the only viable alternative now open to the NANC is to suspend the operation of the portions of Amendment 72 effectuating Change Orders 429, 430 and 435 unless and until NANC makes an affirmative finding that these fields are “necessary to route telephone calls to the appropriate telecommunications carriers.” Telcordia is not asking that information that has already been placed in the NPAC be withdrawn at this time. It simply is asking that no further information be added or additional use made unless and until rule 52.25(f)’s prerequisites are satisfied. Indeed, if use of these fields is not suspended unless a necessity finding is made, (i) rule 52.25(f) becomes a dead letter; (ii) NANC’s required role is eviscerated; and (iii) the state commissioners and state utility consumer advocates – and any other NANC members who are not voting members of the LNPA WG – are disenfranchised without recourse.

II. The Disputed URI Fields Are Not “Necessary to Route Telephone Calls to the Appropriate Telecommunications Carriers” Under 47 C.F.R. § 52.25(f).

The NANC Dispute Resolution Team’s initial report states that there is “real question” whether the disputed fields are “necessary” under 47 C.F.R. § 52.25(f) to route telephone calls to the appropriate telecommunications carriers. In fact, as the record demonstrates, the fields are not and have never been found to be “necessary.” As the 2005 FoN WG Report on Change Orders 399 & 400 sets out, not only are these URI fields unnecessary but including them in the NPAC database would harm competition in the related ENUM market. Certainly there has been no rigorous evaluation of necessity made in this proceeding. No proponent of Change Orders 429, 430 and 435 ever has pointed to a single service “broken” by porting for which Change Orders 429, 430 and 435 provides a “fix.” This distinguishes these Change Orders from all other non-call information previously included in the NPAC.

As an initial matter, for the NANC to include in the NPAC services involving only IP-IP routing, rather than the public switched telephone network (“PSTN”), is contrary to Commission

rules. The FCC **required** that data in the NPAC database be limited only to data “necessary to route telephone calls to the appropriate telecommunications carriers.”³ Similarly, the FCC set a high standard for expanding the database, charging the NANC to determine “the specific information necessary to provide number portability.”⁴ Number portability is statutorily defined as “the ability of users of telecommunications services to retain, at the same location, existing telecommunications numbers without impairment of quality, reliability, or convenience when switching from one telecommunications carrier to another.”⁵ This statutory definition does not extend to non-telecommunications services or to issues relating to the routing of communications other than when a customer switches from one telecommunications carrier to another. The NANC has never determined that IP-IP routing data is “necessary.” Including it in the NPAC database clearly contradicts the FCC’s standard.

Underscoring the NPAC’s limited scope, the FCC has specifically excluded certain data from its reach, including E911 and proprietary customer-specific information.⁶ The FCC did not authorize the NPAC database to extend beyond TDM routing. Thus, expanding the NPAC beyond information required to ensure that number porting functions without disrupting telephone calls raises serious and substantial “policy, regulatory or consumer impact” issues that only the expert agency, with recommendations from the NANC, can resolve.⁷

Furthermore, the burden of establishing necessity should be on the proponents of including the data, because they should have the best access to such information. Here, however, proponents have not shown that failure to include these URI fields in the NPAC will result in misrouted or dropped IP-IP communications. No proponent of Amendment 72 has alleged that these fields are necessary for routing telephone calls, for the simple reason that no current services are broken by porting.⁸ Omitting these URI fields from the NPAC will not break any service to a ported number – *e.g.*, no dropped calls, no undeliverable text messages. The record contains no evidence that any service even will lose quality or function. All of these types of services—IP-to-IP voice traffic, MMS and SMS—can be, and are, completed today using the NPAC only to identify the service provider ID associated with a ported telephone number. These disputed URI fields are simply not necessary to provide these services.

In fact, including these URI fields in the NPAC database actually may impede the efficient routing of next generation traffic. IP-based services already accommodate porting and

³ 47 C.F.R. § 52.25(f); *see also Telephone Number Portability*, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8352, 8403 ¶ 99 (1996) (“*Number Portability First Report and Order*”).

⁴ *Number Portability First Report and Order* at 8403 ¶ 99; 47 C.F.R. § 52.25(f); *see also Telcordia Dispute Resolution Response* at 7.

⁵ 47 U.S.C. § 153(30).

⁶ *Number Portability First Report and Order*, 8403 at ¶ 99; *see also Telcordia Dispute Resolution Response* at 11.

⁷ Letter from Thomas J. Navin, Chief, Wireline Competition Bureau, to Robert C. Atkinson, Chair, NANC (Aug. 11, 2005); *see also Telcordia Dispute Resolution Response* at 11-15.

⁸ *See Telcordia Dispute Resolution Response* at 15-16.

can route calls, including ported calls, without placing additional data fields in the NPAC database. Regarding Change Order 400 (which the LNPA WG subsequently separated into individual Change Orders including 429 and 430), the 2005 FoN WG Report on Change Orders 399 & 400 found:

No additional information beyond that currently in the NPAC is needed to complete telephone calls to ported numbers through the PSTN. . . . Both the ATIS (Alliance for Telecommunications Solutions) PTSC (Packet Technologies and Systems Committee) and the Country Code 1 ENUM LLC indicated . . . that, in addressing the problem of routing and addressing across an IP NNI, they were focusing on ENUM and did not see a need for URIs in the NPAC.⁹

Consistent with this finding, this is precisely what has happened: Service providers using IP interfaces and network operators use low-cost, widely used “carrier ENUM” databases to route IP-IP calls for interconnection.¹⁰ ENUM is an international standard unifying traditional telephony and next-generation IP networks, and provides a critical framework for mapping and processing diverse network addresses.¹¹ It transforms the telephone number—the most basic communications address—into a universal identifier that can be used across many different devices and applications (voice, fax, mobile, email, text messaging, location-based services and the Internet). It does so by associating a telephone number with URIs identifying gateways for customer services and devices. Both public ENUM and service-provider/carrier, or private, ENUM exist. Carrier ENUM’s intended use is for IP peering – enabling the IP-IP exchange of traffic between service providers, including but not limited to voice, MMS and SMS messages.¹² Carrier ENUM permits richer queries than those in the DNS. In addition to voice services, carrier ENUM can handle video, HD video, and mobile money services.¹³

Moreover, IP routing and interconnection is a competitive market, in which Telcordia (along with NeuStar) is just one player among many actual and potential participants.¹⁴ Thus, provisioning these URI fields in the NPAC database, when IP services are already routing successfully via ENUM databases, is unnecessary and duplicative, and poses significant risk of database discrepancies and market confusion.

⁹ 2005 FoN WG Report on Change Orders 399 & 400 at 25, 27.

¹⁰ Dugie Standeford, *Landline, Mobile Operators Said Increasingly Deploying E-Numbering for Cheaper Call-Routing*, Comm. Daily, June 21, 2010, at 6 (“Standeford, E-Numbering”).

¹¹ Internet Engineering Task Force (IETF), Network Working Group, *The E.164 to Uniform Resource Identifiers (URI) Dynamic Delegation Discovery System (DDDS) Application (ENUM)* (Apr. 2004), available at <ftp://ftp.rfc-editor.org/in-notes/rfc3761.txt>.

¹² See IETF, *Infrastructure ENUM Requirements* (May 21, 2007) at 2-3, available at <http://tools.ietf.org/pdf/draft-ietf-enum-infrastructure-enum-reqs-04.pdf>; see also News Release, Country Code 1 ENUM LLC Enables Next Generation Services with Launch of Extensible ENUM Registry Service (Feb. 17, 2009), available at <http://www.enumllc.com/prelease021709.pdf>.

¹³ Standeford, *E-Numbering*, *supra* note 10, at 7.

¹⁴ See *Telcordia Dispute Resolution Response* at 4.

T-Mobile has argued that including these URI fields would address the lack of an industry-wide mechanism for provisioning and synchronizing portability and pooled telephone numbers for non-PSTN uses. Not so.¹⁵ The Change Orders added these URI fields on an **optional basis only**. By definition, optional fields are not “necessary.” And no commenter has argued otherwise. Indeed, adding these URI fields would head toward accomplishing T-Mobile’s goal only if they were mandatory, not optional. At best, these fields might be “helpful” to the subset of carriers who chose to use them. But “helpfulness” is not the required showing.

Moreover, adding the URI fields would require downstream routing databases to undergo significant, costly, and needless modification before the fields could be used. ENUM systems, including NeuStar’s own ENUM database, already facilitate both IP-to-IP and IP-to-PSTN traffic routing *without* needing these NPAC-based URI fields.

III. Permitting NPAC Expansion Would Harm Competition in Adjacent Markets.

Far from being “necessary” to ensure that telephone calls are completed in a number porting environment, adding these fields to the NPAC would give the sole NPAC administrator an avenue to extend its number portability database monopoly into a competitive ENUM market while shifting its costs to a captive payor base. The NPAC, unlike public or carrier ENUM, is a unique, government-mandated database in which all carriers and interconnected VoIP providers are required to participate and for which they must all bear the cost by FCC rule.¹⁶ A database funded through these government-mandated assessments should not be used to compete with privately funded ENUM databases. This is what rule 52.25(f) accomplishes by limiting the NPAC to information “necessary to route telephone calls to the appropriate telecommunications carriers.”

The NPAC database administrator has a clear impetus for adding these URI fields to the database: to the extent that ENUM enables IP-IP interconnection with only minimal use of the NPAC, the NPAC database administrator is looking at what could become a declining business. Carriers, however, are using ENUM to optimize call-routing within networks.¹⁷ With the advantage of the NPAC database’s government mandate as leverage, the NPAC administrator could, through adding IP fields to the NPAC, crowd out its competitors in the ENUM market and monopolize both markets—all without NANC or FCC review or approval. Cost-shifting is a real possibility because the barriers to re-entry of competition will be high if NeuStar can leverage its NPAC monopoly into ENUM. This will harm competition in the carrier ENUM market and eliminate the FCC-created structural separation between the monopoly NPAC and adjacent

¹⁵ See *Telcordia Dispute Resolution Response* at 17-18 (explaining in detail why these URI fields are not only unnecessary but will not deliver the benefits claimed).

¹⁶ See *Telcordia Dispute Resolution Response* at 12-13.

¹⁷ Standeford, *E-Numbering*, *supra* note 10, at 7 (reporting also that fixed operators “no longer use the publicly switched telephone network for routing” because all-IP routing provides an enormous competitive advantage).

services that could be provided using data downloaded from the NPAC.¹⁸ In any event, it is ratepayers – through their bottom of the bill charges or service rates – who end up paying for this cross subsidization.

This is not a problem that will resolve itself (unless the FCC separately grants Telcordia's pending petitions). NeuStar is—and has been since the inception of number portability—the only NPAC provider. Even under NAPM's current proposal to issue a Request for Information in September 2010, followed by a Request for Proposal in November 2011, NAPM is not entertaining any prospect of competition before the middle of 2015. Moreover, although the LNPA WG is considering a Change Order to establish database peering standards, the NAPM has not indicated that it will move toward a peering model – nor would it even commit at the last NANC meeting to a timetable permitting NANC's public interest members to have any input into the decision of whether to accept or reject peering. Allowing competitive businesses, such as carrier ENUM, to be housed in the NPAC database will permit NeuStar to shift the costs of its competitive ENUM business to the captive NPAC payor base for at least several years. Neither the NANC nor the FCC should sanction, however inadvertently, this outcome.

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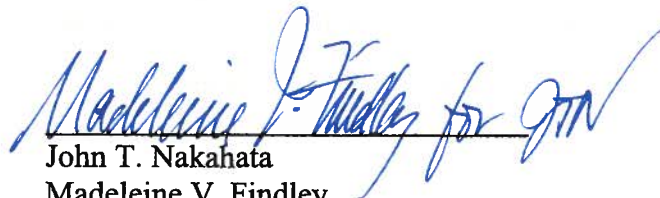
As this dispute has demonstrated, any expansion of NPAC beyond the “necessary” data defined in 47 C.F.R. § 52.25(f) raises significant policy questions involving statutory interpretation, competition policy, and the evolution of telecommunications services. Changes to the scope of the NPAC database must be done through agency rulemaking, and cannot and should not be undertaken by NANC. The FCC, with input from the NANC and interested stakeholders, is the proper body to consider and resolve these policy issues. Accordingly, Telcordia respectfully requests that the NANC find that:

- Change Orders 429, 430, and 435 cannot lawfully be implemented unless and until the NANC or the FCC makes a finding that they are “necessary to route telephone calls to the appropriate telecommunications carriers”;
- Neither the NANC nor the FCC has made such a finding;
- Actions by the LNPA WG cannot substitute for necessity findings by the NANC;
- The LNPA WG did not make a necessity finding;
- Data must be “necessary to route telephone calls to the appropriate telecommunications carriers” for inclusion in the NPAC database; and
- The URI fields referenced in Change Orders 429, 430 and 435 have *not* been nor can they be shown to be “necessary to route telephone calls to the appropriate telecommunications carriers.”

¹⁸ Telcordia Dispute Resolution Request at 12-13& n.53 (quoting *Number Portability First Report and Order*, 11 FCC Rcd. at 8404 ¶ 101 (“Carriers that choose not to access directly the regional databases or deploy their own downstream databases can seek access to the carrier-specific databases deployed by other carriers.”))

- Therefore, the URI fields must be frozen, with no additional data added and no additional uses made of the fields added by the provisions of Amendment 72 implementing Change Orders 429, 430 and 435, unless the NANC or the FCC at a future date makes a determination that this information is “necessary to route telephone calls to the appropriate telecommunications carriers”;
- The record before the NANC is complete. To avoid further anticompetitive behavior in the number portability market, NANC should immediately resolve this dispute consistent with the findings above.

Respectfully submitted,



John T. Nakahata
Madeleine V. Findley
Counsel to Telcordia Technologies, Inc.

cc: Sharon Gillett
Cathy Seidel
William Dever
Ann Stevens
Marilyn Jones