**Contribution**

**TITLE:** Some comments/questions across Sections 1, 4, 5 and Appendix A of the IP Interconnection Routing document (IPNNI-2014-00083R007 – clean version)

**SOURCE\*:** Neustar

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**ABSTRACT**

The following contains a set of questions/comments across several Sections of the IP Interconnection Routing document as a contribution for discussion at the September 17-18, 2014 NNI Task Force meeting.

**NOTICE**

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### Section 1.1

1. Delete one word as shown in the following sentence: “The document discusses existing in-use and proposed routing solutions to facilitate the exchange of traffic associated with IP-based services between North American service providers.” As written, it implies that there is only one existing in-use industry solution today. Not sure if/how this Task Force can definitively substantiate this?
2. Suggested edits as shown for this highlighted paragraph: The initial objectives of the ATIS/SIP Forum NNI Task Force as memorialized in the agreement between ATIS and the SIP Forum included defining “the architecture and requirements for a shared “Thin” registry of NNI interconnection data.” To date, the Forum has been unable to reach consensus on a single registry architecture. Accordingly, this report summarizes the various proposals, registry and non-registry based, for IP interconnection routing that have been discussed by the Task Force with the objective of making them available for feedback from the industry and other stakeholders.

### Section 1.2

1. Delete one word as shown in the following sentence for the reason previously stated above: “Provide an overview of in-use and proposed architectures with the provisioning processes and calls flows to facilitate the exchange of VoIP traffic associated with IP-based services using E.164 addresses.”

**Section 4**

1. Delete one word as shown in the following sentence: “This section details how routing for such exchanges has been implemented based on existing data in the LERG and NPAC supplemented with the bilateral exchange of information to map LERG and/or NPAC identifiers to IP connection information.” What constitutes “industry” data? In this sentence and associated context, suggest that it isn’t necessary to say.

**Section 4.1**

1. Suggested Section title change from “Current Method” to “In-Use Aggregate Method with Existing LERG and NPAC Data” or something similar to better describe the approach.

**Section 4.1.2**

1. Can the author please better explain how the OTT VoIP provider obtains an OCN (in the following quoted sentence), especially when they are generally “leasing” numbering resources from another SP? “This is likely attractive if the SP is an OTT VoIP provider or a cable company if all of their customers are served via IP.”
2. Can the author please better explain how a 10-digit LRN is used (in the scenario starting with the following quoted sentence), if at all, by switches in a SP network. “The 10-digit LRN is a flexible vehicle for identifying a subset of TNs associated with a particular switch that, for example, serves both TDM and IP customer endpoints.”

**Section 4.1.4 (and General Comment)**

1. For Provisioning (and Call Flow) Figures associated with each solution description, can we agree on titles/format for consistency?

**Section 4.2 (and General Comment)**

## The following title is quite long: “Enhancements to Current Aggregate Methods – Utilization of Existing BIRRDS/LERG Industry Database – Enhance the LERG to identify IP fields at an aggregate level, e.g., OCN, LRN, NXX, etc.” Can this title be simplified and can all titles be reviewed for some level of consistency? A suggestion for this title could be “LERG Enhancements for In-Use Aggregate Method”

1. The Task Force should review and agree on how to minimally reference and describe the following:
   1. LERG – can first be provided by iconectiv for Task Force review, however, its industry structure and terms are different than those of the NPAC and should be clearly noted, especially since repeatedly used in the same sentence and context as NPAC. For example, unless there have been recent changes, the LERG is a commercial product that can only be sourced through iconectiv under their terms
   2. BIRRDS – can first be provided by iconectiv for Task Force review, however, its industry structure and terms are also different than those of the NPAC
   3. NPAC – a suggested definition for the scope of this routing document is “NPAC is the authoritative industry database for local number portability routing information as mandated by the FCC back in 1996. It is currently administered by Neustar who was awarded the initial contract by the FCC. NPAC is governed by the NANC/LNPA Working Group which is a Federal Advisory Committee to the FCC.”
   4. CLONES – should be provided by iconectiv since they are the only party that contributed an approach that references this system

**Section 4.2.2**

1. The following is a broad statement: “(R5) Based on service providers’ local methods and procedures, the LERG data is loaded into service providers’ pre-provisioning systems and is used for switch translations, trunk engineering, numbering administration, legal and regulatory support, forecasting, intercompany billing support, and numerous other functions within the company.” Since the LERG product is a key component to this approach, can the author be more specific on the data actually used for routing purposes as it pertains to the scope of this document.

**Sections 5.2 and 5.3**

1. The titles, descriptions and document placement for these two approaches should be reviewed. Both approaches propose using an NS record to identify an associated Tier 2 name server. Further, both approaches are silent on how routing information is actually managed within Tier 2 name servers (e.g., this information could be managed at an aggregate or TN level in either approach). However, the key difference in both approaches is in the provisioning and distribution of the Tier 1 data. Section 5.2 proposes a per-TN approach using the NPAC and Section 5.3 proposes an aggregate approach using the LERG product. For this reason, suggest that Section 5.3 is more aligned with approaches discussed in Section 4 and should be moved accordingly. If the Task Force doesn’t agree with this suggestion, then the titles and descriptions should minimally be revised to better clarify why both are listed in Section 5.

**Section 5.4**

1. Don’t see the need for what sounds like a supplier-specific term, “SRS”, in Figure 12 or the brief description below it. The associated functions can easily be described without introducing such a specific term. Several other examples seem to include “Recipient Group” and “Service Provider of Record”/“SPR” which don’t really provide any relevant additional detail when describing a general independent registry approach.

**Appendix A**

1. This “Comparative Characteristics Matrix” only includes the approaches discussed in Sections 4 and 5 as column headings. Is that the intent? If so, how do interworking approaches (i.e., in Section 6) get incorporated?