Industry Update - National Number Portability (NNP)

SIP NOC

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introduction

LRN

When porting was introduced, the concept of a Location Routing Number (LRN) was utilized to route calls to ported numbers

Rate Center

porting is allowed within a rate center only, since rating is based on the original rate center of the TN

2015

The Energy and Commerce Committee sent the FCC Chairman a letter to address the need to support nationwide number portability This implies the ability to port a number outside of the existing geographical area (ie. Rate Center or LATA)

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Nationwide Number Portability - Timeline

2016

ATIS PTSC technical report augments NANC initial report

PTSC Report describes 5 potential solutions for NNP
NANC LNP WG white paper further emphasizes need for collaboration and commission action

2017

FCC issues NNP NPRM and NOI

Recognizes benefits to competition and consumers of full NNP
Seeks to advance deployment/implementation

2018

Industry Activity and FCC Report and Order (R&O)

April
PTSC Technical Report

June
NANC NNP Working Group

July
FCC issues R&O

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PTSC Technical Report

The PTSC Technical Report

provides further technical assessment of the potential approaches to Nationwide Number Portability (NNP) identified in ATIS-1000071, Technical Report on a Nationwide Number Portability Study

This Report does not modify or amend any of the technical characteristics in any of the approaches that had been detailed in ATIS-1000071

This Report includes an analysis of these potential NNP solutions with the goal of providing additional information on the technical and systems-related impacts needed to support NNP

The Report arranges the options in three categories

- Existing NNP Solution – Commercial Agreements
- Near Term NNP Solutions – National LRN and Non-Geographic LRN
- Long Term – Interconnect Interconnection

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PTSC Report Recommendations and Path Forward

- If one of the near-term approaches is being contemplated, it would be advisable to get a cost assessment from the FCC
  - The cost assessment could be supported using information provided by industry stakeholders and would be a valuable tool in evaluating each of the options.
  - This assessment could then be used to evaluate the implications remaining with commercial agreements until the preferred long term approach is viable, or implementing one of the near term approaches
- Regardless of the technical solution, full deployment of NNP will necessitate that the FCC first expand its number portability requirements beyond rate center and LATA boundaries, and lift restrictions that could prevent the porting of telephone numbers to or from anywhere in the nation

This Report served as input document to the NANC NNP Working Group

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NANC NNP Issues WG: Final Report

- The Commercial Agreements model is currently in use and service providers can continue to consider offering such arrangements.
  - May not be commercially feasible or desirable for all providers and thus may be insufficient to make NNP available to all consumers.
- The Non-Geographic Location Routing Number (“NG-LRN”) model, has significant impediments for implementation, such as requiring new infrastructure and processes, changing the existing interconnection paradigm, and imposing costs on service providers that may not offer NNP themselves.
- The National Location Routing Number (“NLRN”) model, with further technical evaluation, may provide limited potential in terms of an NNP model that could adapt to changing markets and technologies, as well as, benefit competition and consumers
- The GR-2982-CORE (GUBB) model, developed for use with the legacy TDM networks, is no longer a valid solution in the current IP network environment.

Primary recommendation was to focus on the All-IP network as the vehicle for NNP

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NANC NNP Report: Suggested Next Steps

The NANC recommends that the FCC adopt a Second Notice of Inquiry, or establish a suitable advisory body, to address the following questions

- What regulatory reforms must be explored to further enable NNP for all providers?
- Are there approaches to facilitate partial deployment of NNP?
- Are there different approaches worth considering? Are hybrid approaches feasible, especially if combined with partial deployment solutions?
- Are there approaches to NNP where the benefits outweigh the costs (financial, social, regulatory, etc.)?
- Are there additional ways to achieve NNP, outside of and in addition to, the models discussed in this report, both from a technical or technological perspective?

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NANC NNP Report: Suggested Next Steps

The NANC recommends that the FCC's Office of Economics and Analytics perform a detailed cost-benefit analysis on ways to achieve NNP

The NANC and the FCC continue to consider NNP's benefits, costs, regulatory barriers, identified consequences, and the technical feasibility of proposed solutions in all future efforts.

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FCC R&O on Nationwide Number Portability

FCC-18-95A1 adopted 071218

- Eliminates remaining interexchange dialing parity rules
  - the FCC in 2015 eliminated the rule for most local providers
  - stand-alone long-distance service is disappearing with the rise of all-distance plans, VoIP and wireless

- Eliminates N-1 query requirement
  - allows other carriers in the chain to query the LNP database
  - opens new opportunities for call routing as the industry prepares for nationwide number portability

- Acknowledges there is much more to be done to enable NNP

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FCC request for further NNP info

070318 Wireline Competition Bureau directs the NANC

Form a technical subcommittee within the NNP WG

Provide an analysis of the technical requirements for adopting a Non-Geographic LRN (NGLRN) solution and National LRN (NLRN) solution

- including which entities will need to make changes if this solution is adopted
- specify in detail the potential costs and benefits of the NLRN and NGLRN proposals
- including which parties could bear which costs and reap which benefits

Recommend next steps the Commission and industry should take to achieve full NNP

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FCC request for further NNP info

December 2018 meeting

NANC to provide an interim report of the Working Group's findings on these issues at the NANC's December 2018 meeting.

1Q19 meeting

NANC to vote on and transmit to the Bureau a final report of its findings at the NANC 1Q19 meeting

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FCC Announces NNP Technical Members

092718 **Wireline Competition Bureau announces the following members of the NANC NNP WG Technical Subcommittee**

Chair	**Somos**	Mary Retka, Senior Director for Industry Relations

Members	**AT&T Services, Inc.**	Teresa Patton, Principal – Technology Solutions Manager
	CenturyLink	Philip Linse, Director for Public Policy
	Charter Communications, Inc.	Glenn Clepper, Director - Telephone Regulatory
	Professor	Henning Schulzrinne
	Telcordia Technologies, Inc. dba iconectiv	Chris Drake, CTO
	T-Mobile USA, Inc.	Rosemary Leist, Sr. Regulatory Analyst
	Telnyx LLC	David Casem, CEO and Founder

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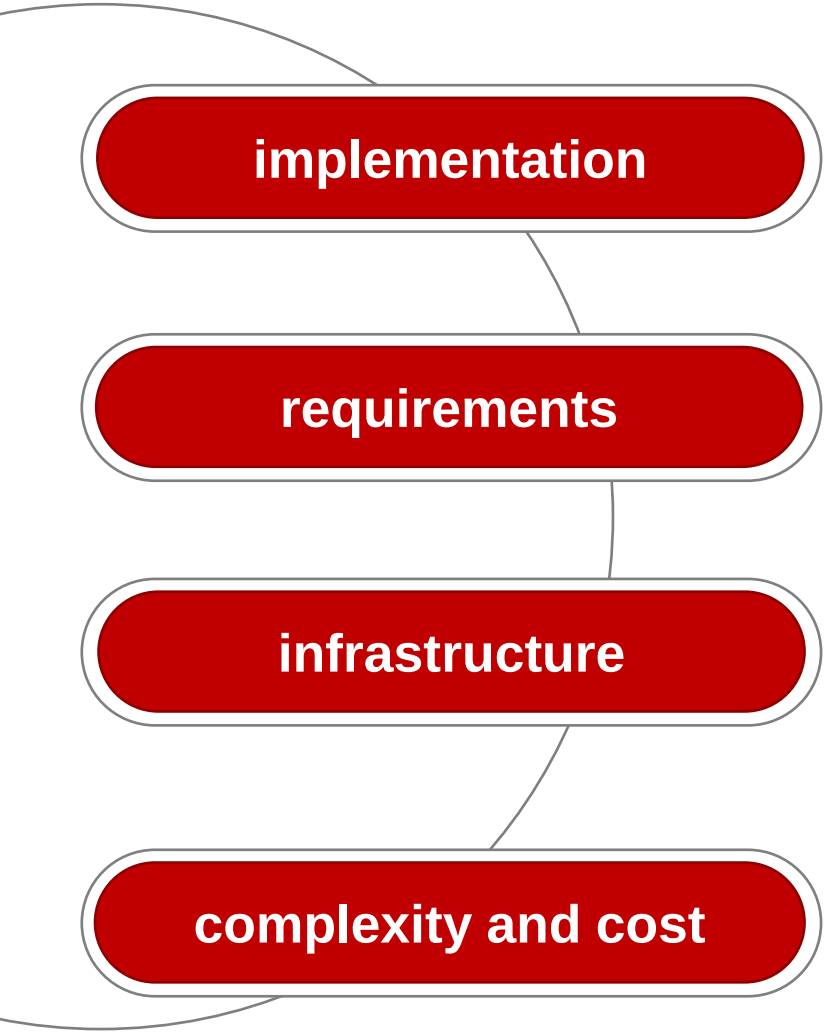
summary



Any implementation will encounter significant consumer, industry, regulatory, and technical challenges

An industry move will require a mandate by the FCC.

The current regulations, standards, and infrastructure were constructed for the TDM network and are based upon a premise that telephone numbers and geography are intertwined

The massive complexity and cost of this undertaking will certainly require significant analysis and an extended duration of time to design, re-engineer, and implement

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thank you

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