Welcome:

The Chair of the CSCN welcomed the attendees, and the participants introduced themselves.

It was noted that the purpose of today’s meeting/conference call is to continue discussing TIF 87 (Management of numbering resources in low population density areas).

It was noted that there are some administrative items that should be reviewed.

12 June 2013 Minutes & Action Items:

It was noted that the 12 June 2013 CSCN TIF 87 meeting/conference call minutes were posted to the CNA website on 28 June 2013. Comments were received from Bell Canada on 2 July 2013 and should be reviewed during today’s call.
It was suggested that, instead of cutting into the time allocated for the Neustar presentation, the Bell Canada edits be posted on the CNA website for participants to review and comment.

Agreement was reached to post the Bell Canada edits to the 12 June 2013 CSCN TIF 87 meeting/conference call minutes on the CNA website for at least a week before accepting the edits and finalizing the minutes.

**Action Items:**

1) Marcel Champagne of Neustar volunteered to present, or have someone else from Neustar make a presentation on the topic of Thousands Block Number Pooling. That is the purpose of today’s conference call.

**Neustar Presentation:**

Participants viewed and discussed the presentation; a copy of which is attached.

**Next Steps:**

The next conference call has been scheduled to define the options and potential solutions to managing telephone numbers in low population density areas and to establish the scope of an S-NRUF if one were to be conducted.

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<th>Topic:</th>
<th>Define 3 options and establish the scope of an S-NRUF</th>
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<tr>
<td>Date:</td>
<td>Tuesday, August 13, 2013</td>
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<td>Time:</td>
<td>14:00 – 16:00 Eastern</td>
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The Call in Number is 1-800-366-7242 and the Access Number is 7091039#.

The Chair thanked the CSCN members for their participation during today’s meeting.

**Summary of Agreements Reached:**

1) Agreement was reached to post the Bell Canada edits to the 12 June 2013 CSCN TIF 87 meeting/conference call minutes on the CNA website for at least a week before accepting the edits and finalizing the minutes.

**Summary of Action Items:**

1) The Bell Canada edits to the 12 June 2013 CSCN TIF 87 meeting/conference call minutes will be posted on the CNA website for at least a week before the CSCN Secretary accepts the edits and finalizes the minutes.

2) A copy of the presentation will be attached to these minutes.
National Pooling Administration

Number Pooling

9 JULY 2013

Amy Putnam

Sr. Director, Thousands-Block Pooling Administration
WHAT IS POOLING?
The Beginning

In March 2000, the FCC acknowledged the distribution of numbers in blocks of 10,000 as one of the major drivers of the potential exhaust of the North American Numbering Plan. It went on to say:

“Telephone number pooling addresses this problem by allowing service providers in a given area to receive numbers in blocks smaller than 10,000. Carriers participating in pooling thereby are able effectively to share numbering resources from a single NXX code.”

First NRO – FCC 00-104 – March 17, 2000
Background

• Thousands-Block number pooling permits a single NPA-NXX to be shared among multiple service providers within the same rate center using the existing number portability infrastructure.

• When the block is assigned to a carrier not the code holder, the numbers are ported to the new assignee.

• Pooling uses the Location Routing Number (LRN) platform portion of Local Number Portability.
How Number Pooling Works

- Service Provider ‘A’ is the code holder for the 787 222 xxxx central office code. Service Provider ‘A’ keeps the 0000 block, and donates the 1000 – 9000 blocks to the pool.
How It Works, cont.

Number Pool
- 787 -222-1000-1999
- 787 -222-2000-2999
- 787 -222-3000-3999
- 787 -222-4000-4999
- 787 -222-5000-5999

Services Providers B, C, and D can receive thousands-blocks from the donated resources.
Benefits of Pooling

• Blocks within the same NXX code can be shared by different service providers within the same rate center, providing more efficient number utilization

• Reduces the resource depletion required for a carrier to service a rate center from 10,000 to 1,000 numbers

• Ability to utilize slightly used (10% contaminated) and unused blocks

• Not customer-affecting

• Used solely or in conjunction with other measures, it may extend the life of an area code substantially
Who Has To Pool?

Participation in thousands-block pooling is required:

- By the FCC: all TSPs operating in the top 100 Metropolitan Statistical Areas (MSAs), unless exempted by the FCC.
- By the states: In all areas designated as mandatory by a state order as a result of delegated authority, unless exempted by the FCC.
- Currently, there is pooling in every state, District of Columbia and Puerto Rico.

» The PA developed the list of top-100 MSAs

» Exemption from pooling is by carrier not by rate center and should not be confused with an “excluded” rate center.

» There is no prohibition to pooling, even in an excluded rate center.

» Once a carrier elects to voluntarily pool it may not change its mind and go back to not pooling in that rate center.
What SPs Must Do to be Able to Pool

• **Operating Company Number (OCN)**
  » Carriers must have an OCN to be able to request resources
  » Required on user registration as well as on PA applications. Call NECA to obtain at 973-884-8249

• **Local Number Portability (LNP)**
  » In order to pool, carriers must be LNP-capable and have a user agreement with the Number Portability Administration Center (NPAC).
  » New customers should contact the NPAC at cc@neustar.biz or 571-434-5434

• **PAS**
  » Pooling Administration System
  » SPs must register in PAS to be able to forecast, donate, and request blocks and pooling codes.
  » Access to PAS is located at www.nationalpooling.com
### National Pooling At-A-Glance

- **Total Number of Rate Centers**: 18,515
- **Number of Pooling Rate Centers**: 15,515
  - Mandatory (M and M) Pooling Rate Centers: 8,511
  - Single Service Provider Mandatory (M* and M*): 1,219
  - Optional Pooling Rate Centers: 5,785
- **Number of Excluded Rate Centers**: 3,020
- **Number of Blocks Assigned since March 2002**: 486,130
- **Number of Part 3s processed since the national rollout**: 1,089,239
- **Number of states that have petitioned for and been granted additional delegated authority since the national rollout**: 17
- **Number of Jurisdictions with Pooling**: 52
- **Percent of all rate centers designated as available for pooling**: 84%
  - Percent mandatory: 53%
  - Percent optional: 31%
  - Percent excluded from pooling: 16%
CO Codes Assigned by Year

National Thousands-Block Pooling Implemented 2001-2003

Source: NANPA Annual Reports
Numbering and Regulatory Oversight

• FCC has jurisdictional authority over numbering in the U.S.
  » Advised by North American Numbering Council (NANC)

• Delegates certain pooling authority to the states

• PA provides expertise to the FCC and the states
  – Identifies issues that the Commission staff should be aware of, and their possible impact on number assignment and administration
  – Identifies trends and possible influences on the use of blocks
  – Data source

• Reports to the FCC
  – Monthly resource assignment activity, PAS performance, staffing, ad hoc reports report, invoices
  – Quarterly
  – Semi Annual
  – Annual
PA Organization

• Pooling Administration Service Center (PASC)
  – Located in Concord, CA
  – Regional Director – Gary Zahn
    • Pooling Administration Manager – Dara Flowers
    • Senior Pooling Specialist and Reclamation Manager – Kevin Gatchell
  – Five Pooling Administrators
  – Help Desk
  – Industry Interface Representative
  – Quality Assurance Manager
  – Technical and Security Operations Manager
  – Primarily handle processing functions

• Virtual Offices
  – PA
  – CO
  – TX
  – WA
PA responsibilities

- Assignment of thousands blocks in pools in all NPAs according to the CFR, the contract, FCC, and industry guidelines
- Maintenance of the FCC’s Pooling Administration System (PAS)
- Assistance to SPs through the help desk
- Pool management
- Rate center management
- Reclamation
- Reporting (FCC, states, industry, NANC)
- Coordination with NANPA for whole NXX requests and NRUF
- Coordination with NPAC to assure that numbers in pooled blocks are entered in the NPAC and properly routed
- Providing neutral subject-matter expertise in industry forums (NANC, NANC IMGs, NOWG, INC, LNPA Working Group, CIGRR)
- P-ANI Administration
Application Processing Requirements

• Follow the contract requirements, Code of Federal Regulations (CFR), FCC orders, and INC *Thousands-Block Pooling Administration Guidelines*
  - Blocks (Initial and Growth)
  - Full codes for LRNs, dedicated customers, and pool replenishment (goes to NANPA)

• Assure that service providers meet the requirements
  - Have certification in that rate center (wireline – state; wireless – FCC)
  - Operating Company Number (OCN) matches certification
  - Establish facilities readiness
  - NRUF on file
  - Meet mandated 6 or fewer months-to-exhaust and 75% utilization levels

• Respond to all applications within seven calendar days.

• Enter information in the Business Integrated Routing & Rating Database System (BIRRDS)

• Educate and assist carriers and state regulators
Pool Management Responsibilities

• Must maintain at least but no more than a six-month industry inventory in over 15,000 rate centers.
  » Rate centers are characterized as Mandatory, State Mandatory, Single Service Provider, Optional, or Excluded
  » Inventory created by donations of blocks (no more than 10% contaminated) from existing inventory and by pool replenishment through opening codes.

• A service provider (SP) must open a code when the pool needs replenishment
  » We use SP pooling forecasts (not NRUF) to determine replenishment needs

• Issues
  » last minute forecasting
  » depletion of resources already spoken for
  » incorrect forecasting (TNs vs. blocks)
  » market surges
Donations to the Inventory Pool

• A carrier can maintain only a 6-month inventory. All blocks that are 10% or less contaminated and exceed the 6-month inventory must be donated to the pool.

• Contamination: at least one TN within a block is not available for assignment to end users or customers.

• All contaminated numbers in blocks must be intra-service provider ported in the NPAC prior to the block being donated.

• Prior to donating a block, the service provider must mark the NXX that contains that block as portable in the NPAC.

• Donating contaminated blocks is transparent to customers and does not require a telephone number change.
Donations to the Inventory Pool, cont.

Prior to donation, SPs must confirm that:

- all unavailable TNs within contaminated thousands-block(s) have been intra-service provider ported
- the associated NPA/NXX is currently available for call routing and is flagged as LNP-capable in the LERG and the NPAC, and the network databases have been appropriately updated
- the switch that the block will be assigned to is currently LNP-capable and will process terminating traffic appropriately
- interconnection facilities have been established between the assigned switch and other interconnecting networks, and
- blocks that require any special treatment have been identified, e.g., restricted use, chat line, etc.
Forecasts

• Required semi-annually (2/1 and 8/1) in mandatory and optional (for that SP) rate centers. NRUF is due to NANPA during this same time period.

• SPs submit through the Pooling Administration System

• Tells the PA how many blocks (and LRNs) each SP anticipates needing in the next 12 months.

• PA uses to replenish pools and complete our NRUF for the NANPA.

• Can be modified at any time. However if an SP increases its forecast and there are not enough blocks available at that time, it may have to wait until that pool is replenished to receive resources.
Reclamation

• Block must be placed into service within six months after the original effective date. Section 8.3.10 of the Thousands-Block Pooling Administration Guidelines.

• SPs notify PA by submitting a Part 4 form, certifying that the thousands-block has been entered into the LERG Routing Guide and that at least one number within the block has been assigned to an end user.

• By the tenth calendar day of each month, the PA notifies appropriate authority (state or FCC) of blocks available to be reclaimed (because the Part 4 has not been submitted on time).

• On or before the last business day of the month, state or FCC notifies PA whether to reclaim or not.
State Regulators and the PA

- State regulatory interaction with PA virtually daily regarding:
  - Number assignment processes
  - Certification
  - Reclamation of resources

- Regulatory update conference calls 4-6 times per year

- Safety valve / state waiver orders

- PAS provides on-line access to numerous pooling administration reports
  - Real-time blocks assigned, available, and retained reports
  - Rate center reports (NPA, MSA, status)
  - Pending applications
  - Daily activity reports (33 states are signed up to receive them)
Safety Valve/ State Waiver

- The PA can assign numbers only when the application meets all requirements of the FCC orders and the Guidelines, including the months-to-exhaust and utilization thresholds.
- The FCC delegated authority to state commissions to hear appeals from the Pooling Administrator’s denial of a specific request for numbering resources due to the SP’s inability to meet the requirements.
- Using a state waiver, a state commission may direct the Pooling Administrator to assign additional numbering resources to carriers that have demonstrated a verifiable need for additional numbering resources outside of those specifically enumerated in the guidelines.
Pooling Administration System (PAS)
PAS Basics

- The Pooling Administration System (PAS) is used by the PA, service providers, regulators and the general public in the administration of numbering resources at the thousands-block level
  - Owned by the FCC
  - Web-based system accessed through the public website (www.nationalpooling.com)
  - Requirements include:
    - 24/7 operation
    - Dual site infrastructure (Sterling, VA and Charlotte, NC)
    - Minimum of 99.9% uptime
    - Security (login and password renewal)
PAS Secure Access

Require user verification before access is granted

- User types PAS supports: Internal (pooling, NANPA, and NPAC), service providers, service provider consultants, state and federal regulators.
- Each PAS user has his/her own user profile, with unique login and password
- Service providers can access only the records associated with their profile
- Regulators have access to only their respective states
- Over 600 registered users
• Allows users to
  » enter and submit applications and other required documentation necessary for obtaining resources
    - Checks/validates as end user enters data
    - Stores submitted applications and administrator responses
    - Sends reminders to end users when certain information/data is required
  » modify, return, donate
  » submit forecast data via an on-line system
  » obtain reports

• Provides authorized regulators with access to SP-related data

• Distributes notifications
Available Information

Pooling website and PAS provide on-line access to:

• Reports
  - Real-time blocks assigned, available, and retained reports
  - Block report by region
  - Real-time forecast reports (called Pool Tracking)
  - Rate center status reports
  - Daily activity reports
  - PA Annual Report
  - Reports on PA activity and performance

• Applications viewable by permitted user and regulators

• Useful Information
  - User Guides, Notices, Change Orders, FCC Orders, Tools Quick Links
Terminology
Common Numbering Terminology

- **NPA**: Area Code
- **NXX**: Prefix or central office code
- **Thousands-block**: (NXX-X) A range of one thousand TNs within an NPA-NXX beginning with X000 and ending with X999, where X is a value from 0 to 9.
- **Assigned Numbers**: Numbers working in the PSTN under an agreement such as a contract or tariff at the request of specific end users or customers for their use, or numbers not yet working but having a customer service order pending. Numbers that are not yet working and have a service order pending for more than five calendar days shall not be classified as assigned numbers.
- **Available Numbers**: Available numbers are numbers that are available for assignment to subscriber access lines, or their equivalents, within a rate center and are not classified as assigned, intermediate, administrative, aging, or reserved.
- **Intermediate Numbers**: Numbers that are made available for use by another telecommunications carrier or non-carrier entity for the purpose of providing telecommunications service to an end user or customer.
- **Utilization**: The numbering resource utilization level shall be calculated by dividing all assigned numbers by the total numbering resources in the applicant’s inventory and multiplying the result by 100. Numbering resources activated in the LERG Routing Guide (within the preceding 90 calendar days of reporting utilization levels) may be excluded from the utilization threshold calculation. All applicants for growth numbering resources shall achieve a 75% utilization threshold.
- **Part 1/Part 1A**: application for resources (Part 1 for full NXX, Part 1A for blocks)
- **Part 3**: response from the PA which equates to applications processed.
- **Months-To-Exhaust**: Is required for all requests for growth resources. To determine the need for an additional block divide the TNs Available for Assignment by the Average Monthly Growth Rate. To determine the need for an additional CO Code divide the blocks available for assignment by the Average Monthly Growth Rate.
- **Donation**: a thousand-block that is donated to the rate center pool from an NXX.
- **Contamination**: either numbers are assigned in that block to your customers or they are not available for assignment. Donations may be made only with blocks that are 10% (100 telephone numbers) contaminated or less.
- **Pool Replenishment**: the process by which the PA utilizes SP forecasts to determine that additional thousands-blocks are required to maintain a 6-month supply for the industry inventory pool for each specific rate center in order to assure adequate numbering resources are available for the industry’s use.
- **Reclamation**: refers to the process by which Service Providers are required to return numbering resources that have not been placed into service within 6-months of the effective date to the North American Numbering Plan Administration (NANPA) or Pooling Administrator (PA).
Common Numbering Terminology

• **LRN: Location Routing Number:** refers to the ten-digit (NPA-NXX-XXXX) number assigned to a switch/POI used for routing in a permanent local number portability environment.

• **Intra-Service Provider Port:** An intra-service provider port allows an SP to retain unavailable TNs in contaminated thousands-blocks that are being donated to an industry inventory pool. An intra-service provider port can also be used to move a TN(s) from one switch serving a rate area to another switch serving the same rate area where LRN-LNP technology is in use.

• **LSMS:** Local Service Management System. Carrier network component that downloads port requests from NPAC.

• **ICP/LSR:** Intercarrier Communications process/Local Service Request. The communications standards used between carriers for initiation of a port.

• **OCN/SPID:** Operating Company Number/Service Provider ID. Often the same number used to identify a carrier for number requests and for ported numbers in the NPAC.

• **SOA – Service Order Administration.** Carrier network component that send port request to NPAC.