Problem/Issue Identification and Description

**Submittal Date** (mm/dd/yyyy): 06/29/2022 **PIM #147 v3**

**Company(s) Submitting Issue**: NANPA (Somos)

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**(NOTE: Submitting Company(s) is to complete this section of the form along with Sections 1, 2 and 3.)**

1. **Problem/Issue Statement:** (Brief statement outlining the problem/issue.)

NANPA is in the process of developing a new system that will combine the functionality provided today in the existing NANP Administration System (NAS), Pooling Administration System (PAS) and Routing Number Administration System (RNAS) into a single system as required per Section 1.5 of the Combined NANPA/PA Technical Requirements Document (“TRD”) which states one of the main objectives of the NANPA is to *“Develop and implement a single system to facilitate all activities of the NANPA/PA and the assignment, tracking, and data reporting requirements for all Numbering Resources”*.

Below are the relevant sections of the TRD on how the NANPA/PA will interface with the NPAC:

*2.6 Telecommunications Requirements  
“The NANPA/PA shall maintain a direct and mechanized interface to the Number Portability Administration Center (NPAC) to transmit and access data that the NANPA/PA needs to perform its responsibilities. The data shall be obtained from the NPAC administrator per the details defined by the North American Portability Management, Limited Liability Corporation (NAPM LLC) that oversees the vendor of the local number portability systems and administration or as otherwise provided by FCC requirements.”*.

*2.14.3 Interface with the Number Portability Administration Center (NPAC)*

*The NANPA/PA shall maintain an NPAC vendor e-mail and mechanized interface (or any other interface which the NANPA/PA and NPAC Vendor shall agree upon and obtain approval on from the FCC). The mechanized interface shall be used to notify the NPAC vendor about thousands-blocks that are being assigned or disconnected, and to receive acknowledgement from the NPAC vendor that the thousands-block assignment/disconnect information has been received. It shall also be used to receive notification from the NPAC vendor that the NPAC vendor has broadcast the thousands-block assignment or disconnect data.*

*The interface with the NPAC vendor also shall be used to request information from the NPAC about central office codes (also referred to as NXXs) and thousands-blocks that are about to be reclaimed by NANPA/PA to ensure that there are no ported Telephone Numbers (TNs) contained within the NXX or thousands-block targeted for reclamation. If the NANPA/PA finds that there are ported TNs within the targeted NXX or the thousands-block is more than 10% contaminated, the NANPA/PA shall refer to the appropriate guidelines for alternative reclamation processing steps (e.g., solicit a new code holder from those service providers with ported TNs within the targeted NXX or solicit a new block holder from those service providers with ported TNs within the targeted thousands-block).*

*The following list identifies each of the seven (7) NPAC regions and the (including the District of Columbia) and U.S. territories that are associated with each NPAC region in the United States. The North American Portability Management LLC (NAPM LLC) manages the contractual relationship with the NPAC vendor, and the NANPA/PA shall contact the NAPM LLC to coordinate interfaces with the NPAC for the purposes of central office code and pooling administration.*

*• Mid-Atlantic Region: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia*

*• Midwest Region: Illinois, Indiana, Michigan, Ohio, Wisconsin*

*• Northeast Region: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont*

*• Southeast Region: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, U.S. Virgin Islands*

*• Southwest Region: Arkansas, Kansas, Missouri, Oklahoma, Texas*

*• West Coast Region: American Samoa, California, Guam, Hawaii, Johnston Atoll, Midway Atoll, Nevada, Northern Mariana Islands, Wake Island*

*• Western Region: Alaska, Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming-Atlantic Region: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia*

*5.2.4.2 NPAC Notification*

*Consistent with the Thousands-Block Number (NXX-X) Pooling Administration Guidelines (Reference 6), the NANPA/PA shall notify the NPAC via the mechanized interface of all block assignments and block returns/disconnects to ensure that the appropriate porting activity and industry notification occurs.*

*5.2.6.2 Administrative Responsibilities for Thousands-Blocks Reclamation*

*At a minimum, the NANPA/PA shall:*

*• Notify the NPAC of the thousands-block disconnect through the mechanized interface*

The existing mechanized interface that is used today between PAS and the NPAC is a SOAP API interface. The SOAP API enables the NPAC to automatically retrieve and update the Part 1B and Part 5 work items created for new thousands-blocks assignments, modifications to existing thousands-blocks and thousands-block disconnects requested by the service providers.   
  
With the new system, changes will be made to the SOAP API message format to align with the new system requirements. Because of these changes, it is anticipated that the NPAC may also need to make changes to align with the new API message format.

1. **Problem/Issue Description:** (Provide detailed description of problem/issue.)

A. Examples & Impacts of Problem/Issue:

Below are relevant sections of the ATIS Industry Numbering Committee (INC) Thousands-Block (NPA-NXX-X) & Central Office Code (NPA-NXX) Administration Guidelines (TBCOCAG) outlining the process of when a Part 1B and Part 5 is sent to the NPAC:

*7.1.18*

*The PA issues the Part 3A to the SP and issues the Part 1B to the NPAC as confirmation of Thousands-Block Allocation. A Part 1B is not issued for Thousands-Blocks associated with Pooled CO Code applications.*

*8.1.8*

*The requested changes should be submitted via the Part 1A Thousands-Block (NPA-NXX-X) Application, and when necessary, the Part 1B NPAC Thousands-Block Data.*

*8.2.4 d)*

*submit a Part 1A Thousands-Block (NPA-NXX-X) Application modification to the PA after Thousands-Blocks are Assigned if the Part 1B NPAC Thousands-Block Data needs updating because the CO Code Holder is retaining multiple Thousands-Blocks and the routing information for one or more of those Thousands-Blocks is different than the Pooled CO Code routing information. The PA forwards the Part 1B to the NPAC after processing the modification;*

*9.1.1*

*The requested changes should be submitted via the Part 1A Thousands-Block (NPA-NXX-X) Application, and when necessary, the Part 1B NPAC Thousands-Block Data.*

*9.1.5*

*Changes, corrections, modifications and updates made to Number Portability Administration Center (NPAC) information on the Part 1B may cause a change to the original requested Effective Date on the Thousands-Block(s). It is recommended that the SP, in addition to making updates in the appropriate fields, state in the “Comments” field of the Part 1A and Part 1B the type of change being requested. An updated Part 1B shall be forwarded to the NPAC.*

*9.1.6*

*When a correction to the “For Information Only” field is needed, it is the responsibility of the SP to send in a modification request to the PA via the Pooling Administration System (PAS) to update the Thousands-Block record information. The updated Part 1B shall be forwarded to the NPAC.*

*13.1.1 d)*

*PA forwards the completed Part 1B NPAC Thousands-Block Data to the Number Portability Administration Center (NPAC).*

*13.1.1 i)*

*NPAC forwards the completed Part 1B to the SP and PA.*

*13.2.1*

*In cases where the ISP Block Port application was submitted in the Pooling Administration System (PAS), the SP shall submit any Switching Entity/POI or Part 1B NPAC Thousands-Block Data modification and any disconnects to the ISP ported Thousands-Block through PAS using the Modify ISP Block Port Request or Disconnect ISP Block Port Request functions in PAS.*

Today, the NPAC retrieves and updates the Part 1B and Part 5 work items in PAS using a SOAP API.

The new system will continue to support the mechanized interface with SOAP technology as agreed upon between the NANPA and the NPAC. However, the SOAP API message format requires changes

to support the Part 1B and Part 5 form changes in the new system. Naming conventions used in the API messages should change to align with the new system. Namespace references in the SOAP API WSDL document should change as per the new system domain name.

Because of these changes we anticipate the NPAC may also need to make changes in their system.

If the NPAC is unable to make changes to align with the updated API message format and references the industry may need to look at an alternative solution that would not impact the service providers requested thousands-block updates in NPAC.

B. Frequency of Occurrence:

NANPA’s core hours of operation is Monday through Friday, 8am ET to 8pm ET, majority of the Part 1B and Part 5 work items will be created during this window, however based on workload, Part 1B and Part 5 work items may be created after hours and on the weekends.

Today, the NPAC retrieves and updates the Part 1B and Part 5 work items using the SOAP API interface nightly.

In 2021, 103,810 Part 1B work items were created and 18,051 Part 5 work items were created. So far in 2022 (through June 28) 43,456 Part 1B work items have been created and 11,368 Part 5 work items have been created.

1. NPAC Regions Impacted:

Mid Atlantic \_\_\_ Midwest\_\_\_ Northeast\_\_\_ Southeast\_\_\_ Southwest\_\_\_ Western\_\_\_

West Coast\_ ALL X

D. Rationale why existing process is deficient:

Message format in the existing SOAP API does not contain the changes required in the new system for Part 1B and Part 5. Naming conventions in API messages and Namespace references in the WSDL file will be obsolete and outdated in the new system.

Though the new mechanized interface between NANPA and the NPAC will continue to support SOAP technology, the new system is a complete redesign and rewriting of software using the new database scheme and application architecture, including updating the API message format in the SOAP API to align with the new system.

E. Identify action taken in other committees / forums:

As part of the process of developing a new system, NANPA submitted issues to INC to consolidate and update existing TBCOCAG related forms that will streamline the process of requesting thousands-blocks and CO codes in the new system (refer to INC Issue 897).

NPAC also requested changes related to the Override NPAC Validation field in PAS (refer to INC Issue 913 and 927).

Any changes impacting the TBCOCAG, will require an issue to be submitted to ATIS INC requesting the change.

F. Any other descriptive items:

The new NANP Administration System (NAS) is scheduled to go live during 4Q2024 and testing of the SOAP API interface between the NPAC and the new system will be available in 1Q2024.

All Part 1B and Part 5 work items that are in process for all NPAC regions will migrate to the new system at the time of cutover to the new system.

1. **Suggested Resolution:**

NANPA has agreed to maintain the existing naming convention used today in PAS and in the event a field exceeds the current PAS maximum characters, the new system will truncate the data to fit the new system character maximum. NANPA has also agreed to add the fields that were removed by INC as it relates to INC Issues 913 and 927, these fields will be made optional, and no data will be sent. NANPA has agreed to retain the existing statuses of Optional or Required, where Required, NANPA will send the data. However, the domain name in the Namespace URL will be updated to npac-api.nanpa.com, the references from BYTE to character will remain as is, and the NPAC users will conform to the new system username and password requirements.

NPAC stated that they can accept special characters if sent, so NANPA will send special characters when applicable.

1. **Final Resolution:**

NANPA shall maintain the existing naming convention used today in PAS and in the event a field exceeds the current PAS maximum characters, the new system will truncate the data to fit the new system character maximum. NANPA shall add the fields that were removed by INC as it relates to INC Issues 897 and 940, these fields will be made optional, and no data will be sent. Per INC Issues 913 and 927, NANPA will only send the Part 1B when the “Override SPID and LRN Validations” is set to “N” value, “For Information Only” is set to “N” value, and “Is Thousands-Block being allocated back to the Code Holder on the switch where the CO Code resides?” field is set to an “N” value. NANPA shall retain the existing statuses of Optional or Required, where Required, NANPA will send the data. NANPA shall update the domain name in the Namespace URL to npac-api.nanpa.com, update the references from BYTE to character and the NPAC users will conform to the new system username and password requirements.

NANPA shall send special characters when applicable understanding that the NPAC can accept special characters.

**NPIF (only)**

PIM #: 147 v3 Final Resolution Date: 4/12/2023

Related Documents:

Issue Resolution Referred to:

Why Issue Referred: