**Origination Date:** 11/11/09

**Originator:** Neustar

### Change Order Number: NANC 442

**Description:** Pseudo-LRN

**Functionally Backward Compatible:** Yes

## IMPACT/CHANGE ASSESSMENT

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| FRS | IIS | GDMO | ASN.1 | NPAC | SOA | LSMS |
| Y | Y | Y | N | Y | Y | Y |

**Business Need:**

Service Provider LSMS and downstream system capacity has been a concern in the past several years and remains a concern for high growth rates in the future.

Based on the current requirements for the NPAC, an active LRN owned by the New Service Provider must be provided on the Create message. There have been some NPAC use cases that do not require an LRN to route voice calls:

* Population of TNs with altSPID reseller information, for the purposes of pre-port identification, routing SMS/MMS messages, and law enforcement/public safety.
* Preparation for network management activities that keep pace with LNP and Pooling updates.

The NPAC currently requires that all active TNs and Number Pooled Block (NPB) records contain an active LRN, and that all TNs be broadcast to all regional LSMSs (minus NPA-NXX filters). Existing LSMS systems and downstream network systems may not need to receive SVs and NPBs from the NPAC for traditional voice routing purposes, if the LRN is only being populated in order to publish other information (e.g., altSPID field). If the LRN field were made optional (using a pseudo value) in the NPAC, users could create records without stipulating that downstream network elements be updated with new PSTN voice routing instructions. Service providers could opt-in to receive pseudo-LRN SVs and NPBs (in total or based on SPID), allowing them to manage LSMS capacity constraints and control downstream system growth rates.

**Description of Change:**

This change order is being created to mitigate the impact of NPAC record growth on Service Provider LSMSs and downstream systems caused by internal network management activities. The NPAC will be updated to allow an SV/NPB to contain a pseudo-LRN value. Since pseudo-LRN SV/NPB data is not needed by LSMSs for traditional voice routing, pseudo-LRN records will be broadcast only to an LSMS that supports the pseudo-LRN value and is interested in pseudo-LRN data from the activating SPID.

With the introduction of the pseudo-LRN value, the NPAC will be updated to receive and broadcast intra-SP ports and NPB activations in the NPAC with a pseudo-LRN value (no behavior change for inter-SP ports):

* Inter-SP SVs:
	+ port with active LRN continues current behavior.
	+ port with pseudo-LRN cannot be done.
* Intra-SP SVs:
	+ port with active LRN continues current behavior.
	+ port with pseudo-LRN can be done by NPA-NXX assignee on native number.
	+ port with pseudo-LRN cannot be done by NPA-NXX assignee with current active intra-port with active LRN.
	+ port with pseudo-LRN cannot be done on NPB with active LRN.
	+ port with pseudo-LRN can be done on NPB with pseudo-LRN.
* Dash-X/NPBs:
	+ block with active LRN can be done when no pseudo-LRN SVs exist within the 1K Block.
	+ block with pseudo-LRN can be done when the Block Holder SPID is also NPA-NXX assignee.

Users who opt-in will be able to request and receive pseudo-LRN data via a pair of SPID-level parameters, maintained by the NPAC administrator:

* SOA systems are subject to certification testing prior to activation.
* LSMS systems are subject to certification testing prior to activation.
* After passing certification testing, User will receive initial BDD of pseudo-LRN records for selected SPIDs.

Opted-in NPAC users will indicate their intent to create pseudo-LRN SVs and NPBs through their SOA by populating ‘000-000-0000’ in the LRN field. Users that have not opted-in will receive errors indicating an invalid LRN if they attempt to create a pseudo-LRN record (maintaining backward compatibility).

All NPAC users can create, modify, and disconnect pseudo-LRN records via:

* LTI
* Mass Activate process
* Help Desk request

SVs and NPBs cannot be modified in such a way that either populates the LRN of a previously pseudo-LRN record, or removes the LRN by converting an active LRN to the pseudo-LRN value. Changing an active record between an active LRN state and pseudo-LRN state always requires the creation of a replacement SV (by disconnecting the active LRN record and activating a pseudo-LRN record). This preserves backward compatibility for SOA and LSMS systems that do not opt-in, by ensuring that a single SV-ID does not switch states.

Receipt of SOA notifications for pseudo-LRN records will be configurable per opted-in SPID.

Opted-in NPAC users will be able to stipulate the SPIDs for which they receive pseudo-LRN records. The Pseudo-LRN Accepted SPID list will be based on a set of SPIDs selected by the opted-in NPAC user, and maintained by the NPAC administrator. NPAC will broadcast pseudo-LRN SVs and NPBs only to opted-in NPAC LSMSs, subject to SPID-based filters (Pseudo-LRN Accepted SPID List). LSMSs not opted-in to pseudo-LRN capability will not receive any broadcast for activate, modify, or disconnect of pseudo-LRN SVs and NPBs.

All NPAC users will be able to access pseudo-LRN records via:

* LTI
* Help Desk request

Prior to opted-in NPAC users receiving pseudo-LRN data by broadcast to the LSMS, there will be a BDD-based ‘synch-up’ process that loads all existing pseudo-LRN info, either in total or subject to SPID-based filters.

NPAC queries and BDDs will include pseudo-LRN records to opted-in SOAs and LSMSs, subject to SPIDs-based filters (Pseudo-LRN Accepted SPID List).

The following table describes various operations and the tunables used to determine messaging:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Operation | A | B | C | D | E | F | G |
| Query via SOA | X | X |  |  |  |  | X |
| Query via LSMS | X |  | X |  |  |  | X |
| Query via LTI by SP Personnel | X |  |  | X |  |  |  |
| Query via Admin GUI by NPAC Personnel | X |  |  |  |  |  |  |
| BDD (SV, DX, NPB) for SOA | X | X |  |  |  |  | X |
| BDD (SV, DX, NPB) for LSMS | X |  | X |  |  |  | X |
| Reports generated via LTI by SP Personnel | X |  |  | X |  |  |  |
| Reports generated via Admin GUI by NPAC Personnel | X |  |  |  |  |  |  |
| SOA SV Notifications | X | X |  |  | X |  |  |
| SOA NPB Notifications | X | X |  |  | X | X |  |
| SOA DX Downloads (create, modify, delete) | X | X |  |  |  |  | X |
| LSMS DX Downloads (create, modify, delete) | X |  | X |  |  |  | X |
| LSMS SV Downloads (create, modify, delete) | X |  | X |  |  |  | X |
| LSMS NPB Downloads (create, modify, delete) | X |  | X |  |  |  | X |

A = Region Supports tunable

B = SOA Supports P-LRN tunable

C = LSMS Supports P-LRN tunable

D = LTI Supports P-LRN tunable

E = SOA Supports P-LRN Notifications tunable

F = SOA Origination Flag on individual NPB

G = SP P-LRN Accepted SPID List tunable

**FRS:**

Section 1.2, NPAC SMS Functional Overview

Add a new section that describes the functionality of the pseudo-LRN. See Description of Change above.

Section 3.1, NPAC SMS Data Models

Add new attributes for the pseudo-LRN. See below:

| **NPAC CUSTOMER DATA MODEL** |
| --- |
| **Attribute Name** | **Type (Size)**  | **Required** | **Description** |
| [snip] |  |  |  |
| NPAC Customer SOA Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the SOA to the NPAC SMS. The Pseudo LRN is the ability to specify an LRN value of “000-000-0000”.The default value is False. |
| NPAC Customer LSMS Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from the NPAC SMS to the LSMS. The Pseudo LRN is the ability to receive an LRN value of “000-000-0000” in an SV or NPB.The default value is False. |
| NPAC Customer SOA Pseudo LRN Notification Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN notifications to the SOA.The default value is False. |
| NPAC Customer LTI Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPAC Customer supports Pseudo LRN information from/to the LTI.The default value is False. |
| [snip] |  |  |  |

Table 3-2 NPAC Customer Data Model

| **Number Pooling NPA-NXX-X holder Information Data MODEL** |
| --- |
| **Attribute Name** | **Type (Size)** | **Required** | **Description** |
| [snip] |  |  |  |
| NPA-NXX-X Pseudo LRN Indicator | B | √ | A Boolean that indicates whether the NPA-NXX-X is a pseudo-LRN pooled block.The default value is False. |
| [snip] |  |  |  |

Table 3‑13 Number Pooling NPA-NXX-X Holder Information Data Model

| **NPAC CUSTOMER PSEUDO-LRN ACCEPTED SPID LIST DATA MODEL** |
| --- |
| **Attribute Name** | **Type (Size)**  | **Required** | **Description** |
| NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer. |
| Accepted SPID | C(4) | √ | The Service Provider ID of the Accepted SP. |
| Accepted SP Name | C(40) | √ | The NPAC Customer Name of the Accepted SP. |

Table 3-x NPAC Customer Pseudo-LRN Accepted SPID List Data Model

3.2, NPAC Personnel Functionality

Req 60 Mass Update – Notifications for Pseudo-LRN Updates

NPAC SMS shall only send notifications for a mass update when the Service Provider’s SOA Pseudo-LRN Indicator is set to TRUE.

3.2.2, Service Provider ID (SPID) Migration Update

Req 39 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update Pseudo-LRN SV Data

NPAC SMS shall update the new service provider SPID on subscription versions, where LRN equals 000-000-0000, associated with the NPA-NXX that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process.

Req 40 SPID Migration Update – SIC-SMURF NPA-NXX File Processing – Update Pseudo-LRN Number Pool Block Data

NPAC SMS shall update the new service provider SPID on Number Pool Blocks, where LRN equals 000-000-0000, associated with the NPA-NXX that was updated in the NPAC SMS, from the *migrating away from SPID* value to the *migrating to SPID* value, during the partial SPID Migration Update Request Process.

RR3-570 SPID Migration Update – GUI Entry by Service Provider and NPAC Personnel – Required Fields

NPAC SMS shall require the originator of a SPID Migration to enter the following fields: (previously NANC 408, Req X10)

* From SPID
* To SPID
* Scheduled Date
* Contact Information
* NPA-NXX ownership effective date (if NPA-NXX is included in the Migration)
* at least one of the following three: NPA-NXX, LRN, and/or NPA-NXX-X
* Pseudo-LRN SV/NPB migration indicator (if any exist, YES/NO).

Note: A Migration request that includes only NPA-NXXs is considered an “online” migration that will be sent over the CMIP interface to Service Providers that support the functionality (SMURF data will be used by Service Providers that do not support the functionality). If migration data includes at least one NPA-NXX-X or LRN, it is considered “offline” and all Service Providers will use SMURF data. A migration request that includes only NPA-NXXs is considered “offline” if pseudo-LRN SVs/NPBs exist within at least one of those NPA-NXXs.

Note: The pseudo-LRN migration indicator field is used for information purposes to NPAC Personnel to determine appropriate M&Ps. If any pseudo-LRN SVs/NPBs exist at the time of migration, they will get migrated per requirements Req 39 and Req 40.

Req 84 SPID Migration – Pseudo-LRN Indicator

NPAC SMS shall provide a SPID Migration Pseudo-LRN Indicator on the SPID Migration GUI, which is defined as an indicator on whether or not the requesting Service Provider desires any existing pseudo-LRN records to be migrated.

NOTE: The indicator is used for NPAC Personnel operations, and not an indicator on whether or not pseudo-LRN records will get migrated. Per requirements Req 39 and Req 40, pseudo-LRN records will get migrated during a SPID Migration.

3.3, System Functionality

Req 61 Low-Tech Interface Operations – Notifications for Pseudo-LRN Updates

Deleted.

3.4, Additional Requirements

RR3-474 NPA-NXX Availability – First Usage Effective Date Window – Tunable Parameter

NPAC SMS shall provide a First Usage Effective Date Window tunable parameter, which is defined as the minimum length of time between the current date (exclusive) and the effective date/due date (inclusive), when creating a NPA-NXX-X (excluding pseudo-LRN) or Subscription Version (excluding pseudo-LRN) for the first time within that NPA-NXX. (previously NANC 394, Req 1)

Req 1 LRN Record – Pseudo-LRN value in the NPAC SMS

NPAC SMS shall use the LRN value of “000-000-0000” (all zeros) as the explicit indication from a requesting Service Provider that the request is for a pseudo-LRN Subscription Version or pseudo-LRN Number Pool Block record.

Req 2 LRN Record – Pseudo-LRN restriction in the NPAC SMS

NPAC SMS shall reject the creation of the pseudo-LRN value of “000-000-0000” (all zeros) for an LRN record by Service Provider SOA, Service Provider Local SMS, Service Provider Low-Tech Interface, and NPAC Personnel on behalf of a Service Provider.

Req 41 LRN Record – Pseudo-LRN query in the NPAC SMS

NPAC SMS shall process a query of the pseudo-LRN value of “000-000-0000” (all zeros) for an LRN record, and return a “no records found” response.

Req 62 Region Supports Pseudo-LRN Indicator

NPAC SMS shall provide a Region Supports Pseudo-LRN Indicator, which is defined as an indicator on whether or not Pseudo-LRN functionality will be supported by the NPAC SMS for a particular NPAC Region.

Req 63 Region Supports Pseudo-LRN Modification

NPAC SMS shall provide a mechanism for NPAC Personnel to modify the Region Supports Pseudo-LRN Indicator.

Req 64 Region Supports Pseudo-LRN Indicator – Default Value

NPAC SMS shall default the Region Supports Pseudo-LRN Indicator to FALSE.

3.9, Service Provider Support Indicators

Req 16 Service Provider SOA Pseudo-LRN Indicator

NPAC SMS shall provide a Service Provider SOA Pseudo-LRN Indicator tunable parameter which defines whether a SOA supports Pseudo-LRN.

Req 17 Service Provider SOA Pseudo-LRN Indicator Default

NPAC SMS shall default the Service Provider SOA Pseudo-LRN Indicator tunable parameter to FALSE.

Req 18 Service Provider SOA Pseudo-LRN Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Pseudo-LRN Indicator tunable parameter.

Req 19 Service Provider LSMS Pseudo-LRN Indicator

NPAC SMS shall provide a Service Provider LSMS Pseudo-LRN Indicator tunable parameter which defines whether an LSMS supports Pseudo-LRN.

Req 20 Service Provider LSMS Pseudo-LRN Indicator Default

NPAC SMS shall default the Service Provider LSMS Pseudo-LRN Indicator tunable parameter to FALSE.

Req 21 Service Provider LSMS Pseudo-LRN Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMS Pseudo-LRN Indicator tunable parameter.

Req 65 Service Provider SOA Pseudo-LRN Notification Indicator

NPAC SMS shall provide a Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter which defines whether a SOA supports Pseudo-LRN.

Req 66 Service Provider SOA Pseudo-LRN Notification Indicator Default

NPAC SMS shall default the Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter to FALSE.

Req 67 Service Provider SOA Pseudo-LRN Notification Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Pseudo-LRN Notification Indicator tunable parameter.

Req 42 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator

NPAC SMS shall provide a Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter which defines whether the SPID supports pseudo-LRN functionality on the Low-Tech Interface.

Req 43 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator Default

NPAC SMS shall default the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter to TRUE.

Req 44 Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator tunable parameter.

Req 85 Service Provider SOA Force Pseudo-LRN BDD Indicator

NPAC SMS shall provide a Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter which defines whether a SOA supports forcing Pseudo-LRN data into the BDD even when SOA Supports Pseudo-LRN Indicator is FALSE.

Req 86 Service Provider SOA Force Pseudo-LRN BDD Indicator Default

NPAC SMS shall default the Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter to FALSE.

Req 87 Service Provider SOA Force Pseudo-LRN BDD Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Force Pseudo-LRN BDD Indicator tunable parameter.

Req 88 Service Provider LSMS Force Pseudo-LRN BDD Indicator

NPAC SMS shall provide a Service Provider LSMSForce Pseudo-LRN BDD Indicator tunable parameter which defines whether an LSMSsupports forcing Pseudo-LRN data into the BDD even when LSMSSupports Pseudo-LRN Indicator is FALSE.

Req 89 Service Provider LSMS Force Pseudo-LRN BDD Indicator Default

NPAC SMS shall default the Service Provider LSMSForce Pseudo-LRN BDD Indicator tunable parameter to FALSE.

Req 90 Service Provider LSMS Force Pseudo-LRN BDD Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider LSMSForce Pseudo-LRN BDD Indicator tunable parameter.

3.11, Bulk Data Download Functionality

Req 3 Subscription Version Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include Subscription Versions with a pseudo-LRN value for Bulk Data Download files of Subscription Version data, when the requesting Service Provider’s NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 68 Number Pool NPA-NXX-X Holder Information Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include NPA-NXX-Xs with a pseudo-LRN value for Bulk Data Download files of NPA-NXX-X data, when the requesting Service Provider’s NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 4 Number Pool Block Holder Information Bulk Download File Creation for SOA – Pseudo-LRN Inclusion

NPAC SMS shall include Number Pool Blocks with a pseudo-LRN value for Bulk Data Download files of Number Pool Block data, when the requesting Service Provider’s NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 45 Subscription Version Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include Subscription Versions with a pseudo-LRN value for Bulk Data Download files of Subscription Version data, when the requesting Service Provider’s NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 69 Number Pool NPA-NXX-X Holder Information Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include NPA-NXX-Xs with a pseudo-LRN value for Bulk Data Download files of NPA-NXX-X data, when the requesting Service Provider’s NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 46 Number Pool Block Holder Information Bulk Download File Creation for LSMS – Pseudo-LRN Inclusion

NPAC SMS shall include Number Pool Blocks with a pseudo-LRN value for Bulk Data Download files of Number Pool Block data, when the requesting Service Provider’s NPAC Customer LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

3.12, NPA-NXX-X Information

RR3-79.1 Number Pool NPA-NXX-X Holder Information – Routing Data Field Level Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, are valid according to the formats specified in the Block Data Model upon Block creation scheduling for a Number Pool, or when re-scheduling a Block Create Event: (Previously N-75.1).

[snip]

LRN (pseudo-LRN value of 000-000-0000)

RR3-228 Number Pool NPA-NXX-X Holder information notification of First Port

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when no porting activity has occurred in the NPA-NXX, immediately after creation of a Number Pooling NPA-NXX-X (excluding Pseudo-LRN), including those automatically created by NPA Split processing. (Previously N-330)

Req 47 Number Pool NPA-NXX-X Holder Information – ServiceProvider SOA Pseudo-LRN Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the SOA to NPAC SMS Interface, when an NPA-NXX-X is indicated as both SOA Origination and pseudo-LRN, when the Service Provider SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 48 Number Pool NPA-NXX-X Holder Information – ServiceProvider Local SMS Pseudo-LRN Indicator Download of NPA-NXX-X Object

NPAC SMS shall download Number Pooling NPA-NXX-X Information for additions, modifications, and deletions, using the Number Pooling NPA-NXX-X Object, via the NPAC SMS to Local SMS Interface, when an NPA-NXX-X is indicated as both SOA Origination and pseudo-LRN, when the Service Provider LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 70 Addition of Number Pooling NPA-NXX-X Holder Information – Active-LRN Number Pool Block Check for Pseudo-LRN SVs

NPAC SMS shall reject the request and issue an error message to the NPAC personnel at the time of NPA-NXX-X Creation for an active-LRN Number Pool Block, if there are any pseudo-LRN TNs within the 1K Block of that NPA-NXX-X.

Req 71 Number Pool NPA-NXX-X Holder Information – Pseudo-LRN Indicator

NPAC SMS shall reject modification of the pseudo-LRN Indicator on the NPAC NPA-NXX-X record.

Req 49 Query of NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – SOA Interface

NPAC SMS shall allow a Service Provider SOA via the SOA to NPAC SMS Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider’s SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 50 Query of NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – LSMS Interface

NPAC SMS shall allow a Service Provider Local SMS via the NPAC SMS to Local SMS Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider’s LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 51 Query NPA-NXX-X Holder Information for Pseudo-LRN – Service Provider Personnel – LTI

NPAC SMS shall allow a Service Provider via the NPAC SOA Low-tech Interface, to query NPA-NXX-X Holder Information for a pseudo-LRN record, if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE.

3.13, Block Information

RR3-128 Number Pool Block Holder Information – LRN Validation

NPAC SMS shall validate that the LRN (excluding pseudo-LRN) specified in the addition or modification of Number Pooling Block Holder information is a valid LRN defined in the NPAC SMS for the Block Holder. (Previously B-80)

Req 5 Number Pool Block Holder Information – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a block activate request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

Req 6 Number Pool Block Holder Information – Service Provider Tunable Value of FALSE for Pseudo-LRN Request

Deleted.

Req 7 Number Pool Block Holder Information – Service Provider Validation for Pseudo-LRN Request of NPA-NXX Ownership

NPAC SMS shall, upon receiving a block activate request for a pseudo-LRN record, verify the Block Holder SPID attribute of the Block object matches the SPID in the NPA-NXX for this corresponding NPA-NXX-X.

NOTE: A valid block activate request is accepted regardless of the specification of NPAC Origination or SOA Origination at the time of the NPA-NXX-X Creation.

Req 83 Number Pool Block Holder Information – Type Validation for Pseudo-LRN and Active-LRN Request

NPAC SMS shall reject a block activate request if the request type is different from the NPA-NXX-X.

NOTE: An NPA-NXX-X created for a pseudo-LRN Number Pool Block must have a block activate request for a pseudo-LRN Block. An NPA-NXX-X created for an active-LRN Number Pool Block must have a block activate request for an active-LRN Block.

Req 8 Number Pooling Block Holder Information – Broadcast of Block Data to EDR Local SMS for Pseudo-LRN

NPAC SMS shall broadcast a Block to EDR Local SMSs for additions, modifications, deletions, re-sends, and resync, via the NPAC SMS to Local SMS Interface, for a pseudo-LRN record only when the Service Provider LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 72 Number Pooling Block Holder Information – Broadcast of Subscription Version Data to non-EDR Local SMS for Pseudo-LRN

NPAC SMS shall broadcast individual subscription versions with LNP Type of POOL to non-EDR Local SMSs for additions, modifications, deletions, re-sends, and resync, via the NPAC SMS to Local SMS Interface, for a pseudo-LRN record only when the Service Provider LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 9 Number Pooling Block Holder Information – Suppression of Block Data to EDR Local SMS for Pseudo-LRN

Deleted.

RR3-149 Addition of Number Pooling Block Holder Information – Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, is valid according to the formats specified in the Subscription Version Data Model upon Block creation for a Number Pool: (Previously B-250)

[snip]

LRN (pseudo-LRN value of 000-000-0000)

Req 10 Activate Number Pool Block – Send Notification of Activation of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to active/partial failure/failed upon activation of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE, the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE, and the SOA Origination Flag is set to TRUE.

Req 11 Activate Number Pool Block – Suppress Notification of Activation of Pseudo-LRN Record

Deleted.

RR3-157 Modification of Number Pooling Block Holder Information – Routing Data

NPAC SMS shall allow NPAC personnel, Service Provider via the SOA to NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, to modify the block holder default routing information (LRN (excluding setting or removing pseudo-LRN), DPC(s), and SSN(s)), Number Pool Block SV Type (if supported by the Block Holder SOA), Alternative SPID (if supported by the Block Holder SOA), Last Alternative SPID (if supported by the Block Holder SOA), Alt-End User Location Value (if supported by the Block Holder SOA), Alt-End User Location Type (if supported by the Block Holder SOA), and Alt-Billing ID (if supported by the Block Holder SOA), Voice URI (if supported by the Block Holder SOA) MMS URI (if supported by the Block Holder SOA), and SMS URI (if supported by the Block Holder SOA) for a 1K Block as stored in the NPAC SMS. (Previously B-320, reference NANC 399)

Req 73 Number Pool Block Holder Information – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a block modify request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

Req 74 Modify Number Pool Block – Send Notification of Modification of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to active upon modification of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE, and the SOA Origination Flag is set to TRUE.

Req 12 Deletion of Number Pool Block Holder Information – Send Notification of Disconnect of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Number Pool Block is set to old upon deletion of a Number Pool Block of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE and the SOA Origination Flag is set to TRUE.

Req 13 Deletion of Number Pool Block Holder Information – Suppress Notification of Disconnect of Pseudo-LRN Record

Deleted.

Req 14 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – SOA Interface

NPAC SMS shall allow a Service Provider SOA via the SOA to NPAC SMS Interface, to query Block Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider’s SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 52 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – LSMS Interface

NPAC SMS shall allow a Service Provider Local SMS via the NPAC SMS to Local SMS Interface, to query Block Holder Information for a pseudo-LRN record, if the value in the requesting Service Provider’s LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 15 Query of Number Pool Block Holder Information for Pseudo-LRN – Service Provider Personnel – LTI

NPAC SMS shall allow a Service Provider via the NPAC SOA Low-tech Interface, to query Block Holder Information for a pseudo-LRN record, if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE.

4.1, Service Provider Data Administration and Management

R4-8 Service Provider Data Elements

NPAC SMS shall require the following data if there is no existing Service Provider data:

[snip]

NPAC Customer SOA Pseudo-LRN Indicator

NPAC Customer LSMS Pseudo-LRN Indicator

NPAC Customer SOA Pseudo-LRN Notification Indicator

NPAC Customer LTI Pseudo-LRN Indicator

Req 22 Add SPID to Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, on behalf of a Service Provider that supports pseudo-LRN records, to add a SPID to the Pseudo-LRN Accepted SPID List for a given Service Provider, which results in the Service Provider receiving broadcasts of Pseudo-LRN information, in subscription versions and Number Pool Blocks.

NOTE: Accepted SPID (receives the data) is the opposite of a Filtered SPID (does not receive the data).

NOTE: If the Service Provider has selected one or more Pseudo-LRN Accepted SPIDs (including own SPID), then only those pseudo-LRN records for those SPID(s) will be sent (including own SPID). If the Service Provider has not selected any Pseudo-LRN Accepted SPIDs, then all pseudo-LRN broadcasts will be sent if the Local SMS supports pseudo-LRN records.

Req 23 Delete SPID from Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, on behalf of a Service Provider that supports pseudo-LRN records, to delete a SPID from the Pseudo-LRN Accepted SPID List for a given Service Provider.

Req 24 Query SPID from Pseudo-LRN Accepted SPID List by NPAC Personnel on behalf of a Service Provider

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to query the Pseudo-LRN Accepted SPID List for a given Service Provider.

5.1, Subscription Version Management

RR5-3 Create Subscription Version - Notify NPA-NXX First Usage

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when an NPA-NXX is being ported for the first time immediately after creation validation of a Subscription Version (excluding pseudo-LRN).

RR5-53 Create Subscription Version - Notify NPA-NXX First Usage of a New NPA-NXX involved in an NPA Split

NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when a new NPA-NXX involved in an NPA Split, is being ported for the first time, after the start of permissive dialing, immediately after creation validation of a Subscription Version (excluding pseudo-LRN), only in cases where no SV or NPA-NXX-X activity had previously taken place in the Old NPA-NXX.

R5‑15.1 Create “Inter-Service Provider Port” Subscription Version - New Service Provider Input Data

NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider port when **NOT** “porting to original”: (reference NANC 399)

1. Local Number Portability Type ‑ Port Type. This field must be set to “LSPP” for Inter-Service Provider ports.
2. Ported Telephone Number(s) ‑ this entry can be a single TN or a continuous range of TNs that identifies a subscription or a group of Subscription Versions that share the same attributes.
3. Due Date ‑ date on which transfer of service from old facilities‑based Service Provider to new facilities‑based Service Provider is initially planned to occur.
4. New Facilities‑based Service Provider ID ‑ the identifier of the new facilities‑based Service Provider.
5. Old Facilities‑based Service Provider ID ‑ the identifier of the old facilities‑based Service Provider.
6. Location Routing Number (LRN) ‑ the identifier of the ported‑to switch (excluding pseudo-LRN).
7. [snip]

RR5-6.5 Create “Intra-Service Provider Port” Subscription Version - LRN Validation

NPAC SMS shall verify that the LRN (excluding pseudo-LRN) is associated with the new Service Provider in the NPAC SMS system upon Subscription Version creation for an Intra-Service Provider port.

Req 25 Create “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

NOTE: The Intra-Service Provider Port for a pseudo-LRN request cannot involve movement of the telephone number to another switch.

Req 26 Create “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of FALSE for Pseudo-LRN Request

Deleted.

Req 53 Create “Intra-Service Provider Port” Subscription Version – Rejection of Pseudo-LRN Request for Active Inter- or Intra-Subscription Version with Active LRN

NPAC SMS shall reject a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA when an active Inter- or Intra-Subscription Version with an active LRN exists for that TN.

Req 27 Create “Intra-Service Provider Port” Subscription Version – Rejection of Pseudo-LRN Request for NPA-NXX-X

NPAC SMS shall reject a Subscription Version Create request for a pseudo-LRN record from a Service Provider SOA when an NPA-NXX-X with a pending or active Number Pool Block that contains an active-LRN exists for that TN.

Note: SV Create for a pseudo-LRN record within an NPA-NXX-X with a pending or active Number Pool Block that contains a pseudo-LRN is allowed.

Req 28 Create “Intra-Service Provider Port” Subscription Version - Notify User of Creation of Pseudo-LRN Record

NPAC SMS shall notify the current Service Provider when a Subscription Version is set to pending upon a successful creation of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE.

R5‑27.1 Modify Subscription Version - New Service Provider Data Values

NPAC SMS shall allow the following data to be modified in a pending or conflict Subscription Version for an Inter-Service Provider or Intra-Service Provider port by the new/current Service Provider or NPAC personnel:

1. [snip]
2. LRN (excluding setting or removing a pseudo-LRN)

R5‑29.1 Modify Subscription Version - Field-level Data Validation

NPAC SMS shall perform field-level data validations to ensure that the value formats for the following input data, if supplied, is valid according to the formats specified in Table 3-6 upon Subscription Version modification.

1. [snip]
2. LRN (excluding setting or removing a pseudo-LRN)

R5‑36 Modify Active Subscription Version - Input Data

NPAC SMS shall allow the following data to be modified for an active Subscription Version:

1. [snip]
2. Location Routing Number (LRN) ‑ the identifier of the ported to switch (excluding setting or removing a pseudo-LRN)

R5-38.2 Modify Active Subscription Version - LRN Validation

NPAC SMS shall verify that an input LRN (excluding pseudo-LRN, which cannot be modified) is associated with the new Service Provider in the NPAC SMS system upon Subscription Version modification of an active version.

Req 75 Modify “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a pending or active Subscription Version Modify request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

R5‑31.3 Modify Subscription Version - Successful Modification Notification

NPAC SMS shall send an appropriate message to the old and new Service Providers upon successful modification of a pending or conflict Subscription Version.

Note: Pending Subscription Version notifications for pseudo-LRN are only sent if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE.

Req 76 Modify “Intra-Service Provider Port” Subscription Version – Send Notification of Modification of Active Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Subscription Version is set to active upon modification of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE.

Req 77 Activate “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a Subscription Version Activate request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

Req 29 Activate Subscription Version - Local SMS Identification – Pseudo-LRN

NPAC SMS shall send a Subscription Version Activate to all Local SMSs, based on the NPAC Customer LSMS Pseudo-LRN Indicator set to TRUE and the Pseudo-LRN Accepted SPID List, that are accepting Subscription Version data downloads of pseudo-LRN data from the SPID creating the pseudo-LRN record.

Req 30 Activate Subscription Version - Local SMS Identification – Delete for Pseudo-LRN non-support

Deleted.

Req 31 Activate “Intra-Service Provider Port” Subscription Version – Send Notification of Activation of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Subscription Version is set to active/partial failure/failed upon activation of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE.

Req 32 Activate “Intra-Service Provider Port” Subscription Version – Suppress Notification of Activation of Pseudo-LRN Record

Deleted.

Req 33 Disconnect Subscription Version - Local SMS Identification – Pseudo-LRN

NPAC SMS shall determine which Local SMSs to send the Subscription Version to by identifying all Local SMSs, using the Service Provider’s Pseudo-LRN Accepted SPID List, that are accepting Subscription Version data downloads of pseudo-LRN data.

Req 34 Disconnect Subscription Version - Local SMS Identification – Disconnect for Pseudo-LRN non-support

Deleted.

Req 78 Disconnect “Intra-Service Provider Port” Subscription Version – Service Provider Tunable Value of TRUE for Pseudo-LRN Request

NPAC SMS shall accept a Subscription Version Disconnect request for a pseudo-LRN record from a Service Provider SOA only when the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE.

Req 35 Disconnect “Intra-Service Provider Port” Subscription Version – Send Notification of Disconnect of Pseudo-LRN Record

NPAC SMS shall send a notification to the current Service Provider when a Subscription Version is set to old upon disconnection of a Subscription Version for an Intra-Service Provider port of a pseudo-LRN record only if the NPAC Customer SOA Pseudo-LRN Indicator is set to TRUE and the NPAC Customer SOA Pseudo-LRN Notification Indicator is set to TRUE.

Req 36 Disconnect “Intra-Service Provider Port” Subscription Version – Suppress Notification of Disconnect of Pseudo-LRN Record

Deleted.

Req 37 Query of Subscription Versions for Pseudo-LRN – Service Provider Personnel – SOA Interface

NPAC SMS shall allow a Service Provider SOA via the SOA to NPAC SMS Interface, to query Subscription Versions for a pseudo-LRN record, if the value in the requesting Service Provider’s SOA Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 54 Query of Subscription Versions for Pseudo-LRN – Service Provider Personnel – LSMS Interface

NPAC SMS shall allow a Service Provider Local SMS via the NPAC SMS to Local SMS Interface, to query Subscription Versions for a pseudo-LRN record, if the value in the requesting Service Provider’s LSMS Pseudo-LRN Indicator is set to TRUE, and the New Service Provider value in the pseudo-LRN record is contained in the requesting Service Provider’s Pseudo-LRN Accepted SPID List.

Req 38 Query of Subscription Versions for Pseudo-LRN – Service Provider Personnel – LTI

NPAC SMS shall allow a Service Provider via the NPAC SOA Low-tech Interface, to query Subscription Versions for a pseudo-LRN record, if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE.

8.4, Audit System Functionality

Req 79 Audit of Pseudo-LRN Subscription Version – Query all LSMSs

NPAC SMS shall send an audit query for a pseudo-LRN Subscription Version to all Local SMSs regardless of support indicators or Accepted SPID List entries.

Req 55 Audit of Pseudo-LRN Subscription Version – Roll-Up Query Results only for Supporting LSMS

NPAC SMS shall audit and roll-up query results for a pseudo-LRN Subscription Version, only when a Service Provider’s LSMS supports pseudo-LRN Subscription Versions, and the SPID to be audited is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 80 Audit of Pseudo-LRN Number Pool Block – Query all LSMSs

NPAC SMS shall send an audit query for a pseudo-LRN Number Pool Block to all Local SMSs regardless of support indicators or Accepted SPID List entries.

Req 56 Audit of Pseudo-LRN Number Pool Block – Roll-Up Query Results only for Supporting LSMS

NPAC SMS shall audit and roll-up query results for a pseudo-LRN Number Pool Block, only when a Service Provider’s LSMS supports pseudo-LRN Subscription Versions, and the SPID to be audited is contained in the Service Provider’s Pseudo-LRN Accepted SPID List.

Req 57 Audit of Pseudo-LRN Subscription Version – Send Audit Results to Originating SOA

NPAC SMS shall send audit results of a pseudo-LRN Subscription Version to the originating SOA, regardless of the SOA’s Pseudo-LRN Indicator value.

Req 58 Audit of Pseudo-LRN Number Pool Block – Send Audit Results to Originating SOA

NPAC SMS shall send audit results of a pseudo-LRN Number Pool Block to the originating SOA, regardless of the SOA’s Pseudo-LRN Indicator value.

Req 59 Add/Modify/Delete TNs to Service Provider Pseudo-LRN Subscription Versions

NPAC SMS shall, following the comparison of its own pseudo-LRN Subscription Versions to the Service Provider’s pseudo-LRN Subscription Versions, broadcast to the Service Provider the latest update (add/modify/delete) for any TN that was not the same in the Service Provider’s Subscription Version database.

Note: In the case, where more than one activity occurred on the TN (e.g., disconnect active-LRN SV, followed by activate of pseudo-LRN SV), only the latest activity (that is supported) is sent. If the Service Provider supports pseudo-LRN, the latest supported activity is the activate. If the Service Provider does not support pseudo-LRN, the latest supported activity is the disconnect.

9.2, Reports User Functionality

Req 81 Pseudo-LRN Data in Reports – Service Provider Personnel

NPAC SMS shall allow Service Provider Personnel to view pseudo-LRN data in reports if the Service Provider Low-Tech Interface Pseudo-LRN Support Flag Indicator is TRUE.

Req 82 Pseudo-LRN Data in Reports – NPAC Personnel

NPAC SMS shall allow NPAC Personnel to view all pseudo-LRN data in reports.

Appendix C, System Tunables

Block Tunables, **NPA-NXX Availability – First Usage Effective Date Window**

The minimum length of time between the Creation date (exclusive) and the effective date/due date (inclusive), when creating a NPA-NXX-X (excluding pseudo-LRN) or Subscription Version (excluding pseudo-LRN) for the first time within that NPA-NXX.

**IIS:**

1. IIS Change: add a new flow for the Download of a pseudo-LRN Subscription Version to the LSMS – Single

B.x.y Active Pseudo-LRN SubscriptionVersion Create on Local SMS for a single TN

This scenario shows how a pseudo-LRN intra-service port is processed.

1. M-CREATE Request subscriptionVersion (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
2. M-CREATE Response subscriptionVersion (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
3. M-EVENT-REPORT Request subscriptionVersionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
4. M-EVENT-REPORT Response subscriptionVersionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)

2. IIS Change: add a new flow for the Download of a pseudo-LRN Subscription Version to the LSMS – Range

B.x.y Active Pseudo-LRN SubscriptionVersion Create on Local SMS for a range of TNs

This scenario shows how a pseudo-LRN intra-service port is processed.

1. M-ACTION Request subscriptionVersionLocalSMS-Create (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
2. M-ACTION Response subscriptionVersionLocalSMS-Create (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
3. M-EVENT-REPORT Request subscriptionVersionLocalSMS-ActionResults (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
4. M-EVENT-REPORT Response subscriptionVersionLocalSMS-ActionResults (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)

3. IIS Change: add a new flow for the Deletion of a pseudo-LRN Subscription Version

B.x.y SubscriptionVersion Delete for pseudo-LRN Intra-Service Provider Port after receiving request from SOA

This scenario shows how a pseudo-LRN intra-service port is processed.

1. M-DELETE Request subscriptionVersion (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
2. M-DELETE Response subscriptionVersion (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no download response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
3. M-EVENT-REPORT Request subscriptionVersionDonorSP-CustomerDisconnectDate (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
4. M-EVENT-REPORT Response subscriptionVersionDonorSP-CustomerDisconnectDate (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
5. M-SET Request subscriptionVersionNPAC (NPAC SMS internal)
6. M-SET Response subscriptionVersionNPAC (NPAC SMS internal)
7. M-EVENT-REPORT Request subscriptionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
8. M-EVENT-REPORT Response subscriptionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)

4. IIS Change: add a new flow for the Creation of a pseudo-LRN NPA-NXX-X to the SOA and LSMS

B.x.y NPA-NXX-X Create for pseudo-LRN Number Pool Block

This scenario shows how a pseudo-LRN NPA-NXX-X is processed.

1. M-CREATE Request serviceProvNPA-NXX-X (NPAC SMS internal)
2. M-CREATE Response serviceProvNPA-NXX-X (NPAC SMS internal)
3. M-CREATE Request serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
4. M-CREATE Response serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
5. M-CREATE Request serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
6. M-CREATE Response serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)

5. IIS Change: add a new flow for the Modification of a pseudo-LRN NPA-NXX-X to the SOA and LSMS

B.x.y NPA-NXX-X Modify for pseudo-LRN Number Pool Block

This scenario shows how a pseudo-LRN NPA-NXX-X is processed.

1. M-SET Request serviceProvNPA-NXX-X (NPAC SMS internal)
2. M-SET Response serviceProvNPA-NXX-X (NPAC SMS internal)
3. M-SET Request serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
4. M-SET Response serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
5. M-SET Request serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
6. M-SET Response serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)

6. IIS Change: add a new flow for the Deletion of a pseudo-LRN NPA-NXX-X to the SOA and LSMS \_Prior to Number Pool Block Existence

B.x.y NPA-NXX-X Delete for pseudo-LRN Number Pool Block

This scenario shows how a pseudo-LRN NPA-NXX-X is processed.

1. M-DELETE Request serviceProvNPA-NXX-X (NPAC SMS internal)
2. M-DELETE Response serviceProvNPA-NXX-X (NPAC SMS internal)
3. M-DELETE Request serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
4. M-DELETE Response serviceProvNPA-NXX-X (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to LSMS if SP Pseudo-LRN LSMS tunable FALSE)
5. M-DELETE Request serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
6. M-DELETE Response serviceProvNPA-NXX-X (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)

7. IIS Change: add a new flow for the Successful Broadcast of a pseudo-LRN Number Pool Block to the LSMS

B.x.y Pseudo-LRN Number Pool Block Successful Broadcast to Local SMS

This scenario shows how a pseudo-LRN NPB is processed.

1. M-SET Request subscriptionVersionNPAC (NPAC SMS internal)
2. M-SET Response subscriptionVersionNPAC (NPAC SMS internal)
3. M-SET Request numberPoolBlockNPAC (NPAC SMS internal)
4. M-SET Response numberPoolBlockNPAC (NPAC SMS internal)
5. M-EVENT-REPORT Request numberPoolBlockStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
6. M-EVENT-REPORT Response numberPoolBlockStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)

8. IIS Change: add a new flow for the Successful De-Pool of a pseudo-LRN Number Pool Block to the LSMS

B.x.y Pseudo-LRN Number Pool Block Successful De-Pool to Local SMS

This scenario shows how a pseudo-LRN NPB is processed.

1. M-DELETE Request subscriptionVersionNPAC (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
2. M-DELETE Request numberPoolBlockNPAC (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
3. M-DELETE Response subscriptionVersionNPAC (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
4. M-DELETE Response numberPoolBlockNPAC (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the New Service Provider value in the pseudo-LRN record is contained in the Pseudo-LRN Accepted SPID List) or no broadcast response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE)
5. M-SET Request subscriptionVersionNPAC (NPAC SMS internal)
6. M-SET Response subscriptionVersionNPAC (NPAC SMS internal)
7. M-SET Request numberPoolBlockNPAC (NPAC SMS internal)
8. M-SET Response numberPoolBlockNPAC (NPAC SMS internal)
9. M-EVENT-REPORT Request subscriptionVersionDonorSP-CustomerDisconnectDate (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
10. M-EVENT-REPORT Response subscriptionVersionDonorSP-CustomerDisconnectDate (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
11. M-EVENT-REPORT Request numberPoolBlockStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
12. M-EVENT-REPORT Response numberPoolBlockStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE) or the SP Pseudo-LRN SOA Notifications tunable FALSE

9. IIS Change: add a new flow for the Audit of a pseudo-LRN Subscription Version to the LSMS – SOA Initiated

B.x.y Pseudo-LRN SubscriptionVersion Audit on Local SMS

This scenario shows how a pseudo-LRN audit is processed.

1. M-CREATE Request subscriptionAudit
2. M-CREATE Response subscriptionAudit
3. M-EVENT-REPORT Request objectCreation
4. M-EVENT-REPORT Response objectCreation
5. M-GET Request (scoped and filtered) subscriptionVersion
6. M-GET Response (scoped and filtered) subscriptionVersion
7. M-EVENT-REPORT Request subscriptionAudit-DiscrepancyRpt (audit results roll-up based on SP Pseudo-LRN LSMS tunable TRUE [include in results] or FALSE [exclude in results])
8. M-EVENT-REPORT Response subscriptionAudit-DiscrepancyRpt

10. IIS Change: add a new flow for the Audit of a pseudo-LRN Subscription Version to the LSMS – NPAC Initiated

B.x.y Pseudo-LRN SubscriptionVersion Audit on Local SMS

This scenario shows how a pseudo-LRN audit is processed.

1. M-CREATE Request subscriptionAudit (NPAC SMS internal)
2. M-CREATE Response subscriptionAudit (NPAC SMS internal)
3. M-GET Request (scoped and filtered) subscriptionVersion
4. M-GET Response (scoped and filtered) subscriptionVersion
NPAC SMS performs the comparisons.
If any discrepancies are found, the NPAC SMS will perform the necessary fix to the Local SMS.
If any corrections were issued to any Local SMSs, the NPAC SMS will roll-up audit results based on SP Pseudo-LRN LSMS tunable TRUE (include in results) or FALSE (exclude in results) for steps 5 and 7 below.
5. M-EVENT-REPORT Request subscriptionVersionStatusAttributeValueChange to current SOA (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
6. M-EVENT-REPORT Response subscriptionVersionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
7. M-EVENT-REPORT Request subscriptionVersionStatusAttributeValueChange to Old SOA (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
8. M-EVENT-REPORT Response subscriptionVersionStatusAttributeValueChange (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable TRUE and the SP Pseudo-LRN SOA Notifications tunable TRUE) or no notification response (from NPAC SMS to SOA if SP Pseudo-LRN SOA tunable FALSE or the SP Pseudo-LRN SOA Notifications tunable FALSE)
9. M-DELETE Request subscriptionAudit (NPAC SMS internal)
10. M-DELETE Response subscriptionAudit (NPAC SMS internal)

**GDMO:**

-- 11.0 LNP New Service Provider Subscription Version Create

subscriptionVersionNewSP-Create ACTION

 BEHAVIOUR

 subscriptionVersionNewSP-CreateDefinition,

 subscriptionVersionNewSP-CreateBehavior;

 MODE CONFIRMED;

 WITH INFORMATION SYNTAX LNP-ASN1.NewSP-CreateAction;

 WITH REPLY SYNTAX LNP-ASN1.NewSP-CreateReply;

 REGISTERED AS {LNP-OIDS.lnp-action 11};

subscriptionVersionNewSP-CreateBehavior BEHAVIOUR

 DEFINED AS !

[snip]

 LRN data is associated with the New Service Provider for a regular

 port. LRN data of 000-000-0000 is used for a pseudo-LRN port.

[snip]

**ASN.1:**

No changes required.

**M&P:**

1. SPID Migration – a pseudo-LRN report (similar to the current pending-like SV report) will be produced by NPAC Personnel, and provided to both SPID A and SPID B. Actions and details of the pseudo-LRN SV and NPB records will be handled on a case-by-case basis.