

# **National Number Pooling Requirements**

## **Document Change History:**

5/20/98

1. Updated definitions, added “blank directory” and “TN re-assignment” table.
2. Updated section 3, added initial requirements for NPA-NXX and LRN validation. Updated NPAC Customer Data Model (for EDR flag). Also, Number Pooling Block Holder Information Model, and requirements RR3-27.1 through RR3-34.1, RR3-25, and RR3-26. Also added initial requirements for Sub-Block discussion.
3. Updated section 8, issue with audit and notification suppression to SOA, depending on value of ERD flag to LSMS.
4. Updated section 9, consolidated requirements for reports.

6/1/98

1. Updated definition for “vacant number treatment”.
2. Updated Block and Sub-Block sections based on discussion.
3. Added comments to SV section related to discussion in Chicago.

6/29/98

- ?1 Re-worked most areas of document, to accommodate new direction (i.e., sub-blocks over the SOA).

[8/17/98](#)

- ?2 [Updated Block Holder section for issues discussed in Denver.](#)
- ?3 [Incorporated new requirements for "pending-like, no active" edits.](#)

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## Number Pooling Requirement Overview

The National Number Pooling Requirements document provides a set of requirements developed by NANC T&O, as a “target architecture” approach for a national solution to Number Pooling.

The following definitions apply in the requirements that follow:

- Code Holder – The code holder is the LERG owner of the NPA-NXX.
- Block Holder – The recipient Service Provider of a pool of numbers from the code holder. Also defined as the NPA-NXX-X holder in the LERG.
- Block – A range of 1000 pooled TNs within the NPA-NXX, beginning with a station of n000, and ending with n999, where n is a value between 0 and 9.
- Sub-Block – A range of pooled TNs, between size x and 1000 TNs. Currently, x equals 1000.
- Pre-Port – Porting of an entire block of TN’s from the code holder to the block holder on, or after, the effective date of the pool (the sub-block will be the same size as the block, i.e., 1000 TNs).
- Port on Demand – Porting of a single TN or range of TN’s from the code holder to the block holder at a time desired by the block holder that is on, or after, the effective date of the pool. Note: this is not used for the current architecture.
- Number Pooling Block Holder Information – Data in the NPAC SMS that contains the range of TN’s, the block holder (service provider), default routing for a block of TNs, and the effective date of the block.
- Number Pooling Sub Block Information – Data in the NPAC SMS that contains the range of TN’s (could be the entire set or a sub-set of the block), default routing for a sub-block of TNs, and the activation date of the TN’s within the range.
- De-Pool – Return of a 1K pooled block to the Number Administrator. Also referred to as “un-allocation of the block”.
- Vacant Number – A non-working number.
- Vacant Number Treatment – A recorded announcement played to the calling party, when the NPA-NXX of the TN they have dialed is valid, but the 10-digit TN is not a working number.
- Default Routing Restoration – reinstatement of the default routing for the TN as defined in the applicable block/sub-block information, in order to provide vacant number treatment.
- Snapback – Notification for TN reassignment.
- Contamination – A working number, within a block, that is active (for either the code holder or another Service Provider), prior to the block being donated to the Pooling Administrator.

The following table portrays “**vacant number treatment**” responsibility and “**snapback for TN re-assignment**” notifications throughout each phase of number pooling, once the Block has been donated to the Pooling Administrator:

<b>Vacant Number Treatment</b>	Pre effective date	post effective date	post <u>Sub-Block activation-date</u>
Contaminated disconnect	Code holder	Code holder**	Block holder
Non-contaminated	Code holder	Code holder	Block holder
<b>Snapback for TN re-assignment</b>			
Contaminated disconnect	Code holder*	Block holder	Block holder
Non-contaminated	N/A	N/A	Block holder

\* = Code Holder receives a notification but CANNOT reassign this TN.

~~\*\* = Code Holder CANNOT reassign this TN.~~

At the present time, the approach includes the following:

- 0Pre-Port 1K blocks to a single switch (i.e., all 1000 TNs contain same LRN).
- 1EDR (Efficient Data Representation) captured through the use of “sub-blocks” in the NPAC, and over the SOA-to-NPAC and NPAC-to-LSMS interfaces.
- 2The Block Holder Information in the NPAC is the same as the 1K block managed by the Pooling Administrator, and represented in the LERG.
- 3The Block Holder Information is NOT broadcast by the NPAC over the SOA interface or the LSMS interface.
- 4The Block Holder Information’s “Effective Date” is the date the LERG, the Pooling Administrator, and the NPAC, consider to be the “ownership switchover” date for the 1K block from the Code Holder (NPA-NXX owning SP) to the Block Holder (NPA-NXX-X owning SP).
- 5The Sub-Block Holder Information in the NPAC is a sub-set of the Block Holder Information. At the present time, they are equal (i.e., both contain all 1000 TNs).
- 6The Sub-Block Holder Information is conditionally broadcast by the NPAC over the ~~SOA interface or the~~ LSMS interface. The decision is based on the ~~SP’s SOA implementation, and the~~ SP’s LSMS EDR flag in the SP Profile record in the NPAC (non-EDR LSMSs get individual SVs).
- 7The Sub-Block Holder Information’s “Activation TimestampDate” is the date/time the NPAC broadcasts sub-block or SV data to the applicable LSMSs. Only at this point in time are all SPs notified of the “ownership switchover” date for the 1K block from the Code Holder (NPA-NXX owning SP) to the Block Holder (NPA-NXX-X owning SP).

- 8 The Sub-Block Holder Information's SOA notification is conditionally broadcast over the SOA to NPAC Interface. The decision is based on the SOA Origination Flag on each Sub-Block record.
- 9 At Block Creation, a warning message (for TNs within the 1K range) for "pending-like" SVs with no currently active SVs, and PTO SVs, is generated. This warning message will indicate that these SVs need to be cleaned up prior to Sub-Block Creation/Activation. The Block Holder data will still be created in the NPAC database.
- 10 The warning message will contain a report that is visible to NPAC personnel. This information will be forwarded to the Donor, Block Holder, and Pooling Administrator. The data within the message will contain TN, SV ID, Old SP, New SP, Due Date, and Status.
- 11 At Sub-Block Creation, the request will be rejected if there are any "pending-like" SVs with no currently active SVs or PTO SVs (both situations, for TNs within the 1K range). Additionally, a similar warning message as the Block Creation, will be generated. No Sub-Block data will be created in the NPAC database.
- 12 At Sub-Block Effective Date,

## Open Issues

1. The Auto Activation Timestamp (Block Holder Data) has been removed from this version of the requirements. This means that either Lockheed Martin will create the Sub-Block or the SP will do this over the SOA. Question: how will this be decided (NPAC activated flag on the form), how will this decision be sent to interested parties, and how will Lockheed handle this if they need to create the Sub-Block? If done by Lockheed, need to add an M&P to define this “~~two-step~~ process”. This will be the creation of the block(first step), and creation of the Sub-Block (second step). This ~~will likely~~ could be ~~amanual~~ or “scheduled” job, to run the auto activation request at the date and time specified in the Number Pooling form/SP contact.

## Requirements

### Section 3 Modifications

#### FRS 3.1.2

NPAC CUSTOMER DATA MODEL			
Attribute Name	Type (Size)	Required	Description
NPAC Customer ID	C (4)	√	An alphanumeric code which uniquely identifies an NPAC Customer.
NPAC Customer Name	C (40)	√	A unique NPAC Customer Name.
NPAC Customer Allowable Functions	M	√	Each bit in the mask represents a boolean indicator for the following functional options: <ul style="list-style-type: none"> <li>• SOA Management</li> <li>• SOA Network Data Management</li> <li>• LSMS Network Data Management</li> <li>• LSMS Data Download</li> <li>• LSMS Queries/Audits</li> </ul>
<ul style="list-style-type: none"> <li>• NPAC Customer LSMS EDR Indicator</li> </ul>	B	√	A boolean that indicates whether the NPAC Customer utilizes Efficient Data Representation (EDR) on the LSMS.  The default value is False.

#### RR3-15 Service Provider EDR Indicator

NPAC SMS shall provide a mechanism for the Service Provider to indicate whether or not they ~~maintain~~ manage the 1K Block using Efficient Data Representation (EDR), and want Number Pooling Sub-Block Information downloaded to their Local SMS via the NPAC SMS to Local SMS Interface, using the Number Pooling Sub-Block Object.

**NOTE: NANC 139 needs to be updated to send Sub-Block to the SOA.**

**RR3-16 Service Provider EDR Indicator – Default**

NPAC SMS shall default the EDR Indicator to ~~OFF~~[FALSE](#).

**RR3-176 Service Provider EDR Indicator – Modification**

NPAC SMS shall allow the NPAC SMS Administrator to modify the EDR Indicator [on the NPAC Customer record](#).

## FRS 3.1.3

<b>SUBSCRIPTION VERSION DATA MODEL</b>			
<b>Attribute Name</b>	<b>Type (Size)</b>	<b>Required</b>	<b>Description</b>
Version ID	N	√	A unique sequential number assigned upon creation of the Subscription Version.
LRN	TN	√	The LRN is an identifier for the switch on which portable NPA-NXX-XXXX's reside.
Old Service Provider ID	C (4)	√	Old Service Provider ID.
New Service Provider ID	C (4)	√	New Service Provider ID.
TN	TN	√	Subscription Version telephone number.
Local Number Portability Type	E	√	Number Portability Type. Valid enumerated values are: LSPP - Local <a href="#">Inter</a> -Service Provider Portability (0) LISP - Local Intra-Service Provider Portability (1) POOL - Pooled Block Number Port (2)
Status	E	√	Status of the Subscription Version. The default value is P for Pending. Valid enumerated values are: X - Conflict (0) A - Active (1) P - Pending (2) S - Sending (3) F - Failed (4) PF - Partial Failure (5) DP - Disconnect Pending (6) O - Old (7) C - Canceled (8) CP - Cancel Pending (9)
CLASS DPC	N (9)	√	DPC for 10-digit GTT for CLASS features.
CLASS SSN	N (3)	√	CLASS SSN for the Subscription Version.

**SUBSCRIPTION VERSION DATA MODEL**

<b>Attribute Name</b>	<b>Type (Size)</b>	<b>Required</b>	<b>Description</b>
LIDB DPC	N (9)	√	DPC for 10-digit GTT for LIDB features.
LIDB SSN	N (3)	√	LIDB SSN for the Subscription Version.
CNAM DPC	N (9)	√	DPC for 10-digit GTT for CNAM features.
CNAM SSN	N (3)	√	CNAM SSN for the Subscription Version.
ISVM DPC	N (9)	√	DPC for 10-digit GTT for ISVM features.
ISVM SSN	N (3)	√	ISVM SSN for the Subscription Version.
New Service Provider Due Date	T	√	The due date planned by the new Service Provider for Subscription Version Transfer.
Old Service Provider Due Date	T		The due date planned by the old Service Provider for Subscription Version Transfer.
Old Service Provider Authorization	B		A boolean indicator set by the old Service Provider to indicate authorization or denial of Transfer of Service for the Subscription Version to the new Service Provider.
New Service Provider Create Time Stamp	T		The date and time that the New Service Provider authorized Transfer of Service of the Subscription Version.
Old Service Provider Authorization Time Stamp	T		The date and time that the old Service Provider authorized Transfer of Service for the Subscription Version.
Activation Request Time Stamp	T		The date and time that the Subscription Version activation request was made by the new Service Provider.
Activation Broadcast Date	T		The date and time that broadcasting began to all local SMS systems for the activation of the Subscription Version.
Activation Broadcast Complete Time Stamp	T		The date and time that at least one Local SMS system successfully acknowledged the broadcast or the retries were exhausted for the activate.
Disconnect Request Time Stamp	T		The date and time that the Subscription Version disconnect request was made by the local Service



**SUBSCRIPTION VERSION DATA MODEL**

Attribute Name	Type (Size)	Required	Description
			Provider.
Disconnect Broadcast Time Stamp	T		The date and time that broadcasting began to all local SMS systems for the disconnect of the Subscription Version.
Disconnect Broadcast Complete Time Stamp	T		The date and time that at least one Local SMS system successfully acknowledged the broadcast or the retries were exhausted for the disconnect.
Effective Release Date	T		The date that the Subscription Version is to be deleted from all Local SMS systems.
Customer Disconnect Date	T		The date that the Customer's service was disconnected.
Pre-Cancellation Status	E		Status of the Subscription Version prior to cancellation. Valid enumerated values are: X - Conflict (0) P - Pending (2) DP - Disconnect Pending (6)
Old Service Provider Cancellation Time Stamp	T		The date and time that the Old Service Provider acknowledged that the Subscription Version be canceled.
New Service Provider Cancellation Time Stamp	T		The date and time that the New Service Provider acknowledged that the Subscription Version be canceled.
Cancellation Time Stamp	T		The date and time that the Subscription Version became canceled.
Old Time Stamp	T		The date and time that the Subscription Version became old.
Conflict Time Stamp	T		The date and time that the Subscription Version was last placed in conflict.
Conflict Resolution Time Stamp	T		The date and time that the resolution of a Subscription Version in conflict is acknowledged.
Create Time Stamp	T	√	The date and time that this Subscription Version record was created.

<b>SUBSCRIPTION VERSION DATA MODEL</b>			
<b>Attribute Name</b>	<b>Type (Size)</b>	<b>Required</b>	<b>Description</b>
Modified Time Stamp	T	√	The date and time that this Subscription Version record was last modified.  The default value is the Create Time Stamp.
Porting to Original	B	√	A boolean that indicates whether the Subscription Version created is to be ported back to the original Service Provider.  The default value is False.
End User Location Value	C (12)		For future use.
End User Location Value Type	C (2)		For future use.
Modify Request Timestamp	T		The date and time that the Subscription Version Modify request was made.
Modify Broadcast Timestamp	T		The date and time that broadcasting began to all local SMS systems for the modification of the Subscription Version.
Modify Broadcast Complete Timestamp	T		The date and time that all local SMS systems successfully acknowledged or the retries were exhausted for the modification of the Subscription Version
Billing ID	C (4)		For future use.  The default value is the Facilities Based Service Provider ID.
Status Change Cause Code	N (2)		Used to specify reason for conflict when old Service Provider Authorization is set to False, or to indicate NPAC SMS initiated cancellation. Valid values are: No value General Conflict LSR Not Received FOC Not Issued Due Date Mismatch Vacant Number Port NPAC SMS Automatic Conflict from Cancellation NPAC SMS Automatic Cancellation

Table 0-1 Subscription Version Data Model

**RX3-3.1 Service Provider NPA-NXX Data Deletion**

NPAC SMS shall allow Service Providers to delete their NPA- NXX data via the NPAC SMS to Local SMS interface or the SOA to NPAC SMS interface provided the changes do not cause any updates to the Subscription Versions, Number Pooling Block or Sub-Block Information.

**RR4-3 Removal of NPA-NXX**

NPAC SMS shall allow the removal of an NPA-NXX by NPAC personnel only if no Subscription Versions, except for Old or Canceled Subscription Versions, Number Pooling Block or Sub-Block Information, exists for~~are associated with~~ the NPA-NXX.

**RX3-3.2 Service Provider LRN Data Deletion**

NPAC SMS shall allow Service Providers to delete their LRN data via the NPAC SMS to Local SMS interface or the SOA to NPAC SMS interface provided the changes do not cause any updates to the Subscription Versions, Number Pooling Block or Sub-Block Information.

**RR4-4.2 Removal of LRN**

NPAC SMS shall allow the removal of an LRN by NPAC personnel only if no Subscription Versions, except for Old or Canceled Subscription Versions, Number Pooling Block or Sub-Block Information, exists for~~are associated with~~ the LRN.

**RR3-17 Scope of Database Extract File Creation/Bulk Data Download**

NPAC SMS shall allow NPAC personnel to specify an NPA-NXX for database extract file creation of active Subscription Versions.

**NOTE:** The Database Extract File needs to be enhanced for Number Pooling:

- Need a field for requesting SPID.
- Need to use EDR indicator to include/exclude LNPTYPE = POOL.
- Need to "put" file in correct FTP site sub-directory.
- Need to update NPAC personnel M&P to accomplish this.

## Section 3 New Requirements

NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL			
Attribute Name	Type (Size)	Required	Description
Block Holder SPID	C(4)	√	The Service Provider Id of the block holder.
TN Range Start	TN	√	Telephone number at the start of the pool <a href="#">for the 1K Block</a> .
TN Range End	N(4)	√	Last four (4) digits of telephone number that indicate the end of the TN range for the pool <a href="#">for the 1K Block</a> .
LRN	TN	√	The LRN is an identifier for the switch on which pooled NPA-NXX-X resides <a href="#">for the 1K Block</a> .
CLASS DPC	N (9)	√	DPC for 10-digit GTT for CLASS features <a href="#">for the 1K Block</a> .
CLASS SSN	N (3)	√	CLASS SSN <del>for the Subscription Versions</del> <a href="#">for the 1K Block</a> .
LIDB DPC	N (9)	√	DPC for 10-digit GTT for LIDB features <a href="#">for the 1K Block</a> .
LIDB SSN	N (3)	√	LIDB SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
CNAM DPC	N (9)	√	DPC for 10-digit GTT for CNAM features <a href="#">for the 1K Block</a> .
CNAM SSN	N (3)	√	CNAM SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
ISVM DPC	N (9)	√	DPC for 10-digit GTT for ISVM features <a href="#">for the 1K Block</a> .
ISVM SSN	N (3)	√	ISVM SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
Effective Date	T	√	The effective date of the pool <a href="#">for the 1K Block</a> . The time for this field will be stored in GMT, but equivalent to 00:00:00 network data time CST

NUMBER POOLING BLOCK HOLDER INFORMATION DATA MODEL			
Attribute Name	Type (Size)	Required	Description
			(consistent with current functionality of NPA Splits).
<a href="#">Creation Date</a>	<a href="#">T</a>		<a href="#">The date and time (GMT) that this Block Holder record was created.</a>
<a href="#">Last Modified Date</a>	<a href="#">T</a>		<a href="#">The date and time (GMT) of the Last Modification to this Block Holder record.</a> <a href="#">The default value is the Creation Timestamp.</a>
Status	E	√	Status of the Block. The default value is A for Active. Valid enumerated values are: A - Active (0) O - Old (1)

**NOTE: The Block Holder Information Data, can only be maintained/performed by NPAC Personnel, and no notifications will be sent to either the SOA or LSMS.**

#### **RR3-27.1.1 Number Pool Block Holder Information – NPA-NXX Validation**

NPAC SMS shall validate that the NPA-NXX specified in the addition of Number Pooling Block Holder information is a valid NPA-NXX defined in the NPAC SMS.

#### **RR3-27.1.2 Number Pool Block Holder Information – NPA-NXX Effective Date**

NPAC SMS shall validate that the effective date of the block is equal to, or greater than, the effective date of the NPA-NXX as defined in the NPAC SMS.

#### **RR3-27.2 Number Pool Block Holder Information – LRN Validation**

NPAC SMS shall validate that the 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.

#### **RR3-28.1 Number Pool Block Holder Information – No Overlapping Block Validation**

NPAC SMS shall validate that the TN range specified in the addition or modification of Number Pooling Block Holder information does not overlap with a TN in a range for another entry in the Number Pooling Block Holder Information Table.

**RR3-28.2 Number Pool Block Holder Information – Block in one NPA-NXX**

NPAC SMS shall validate that the range specified for a block of numbers to be pooled is contained in one NPA-NXX-X, where the range begins with n000 and end with n999, where n is a value between 0 and 9.

**RR3-29 Number Pool Block Holder Information – Validation Error**

NPAC SMS shall report an error to the user and reject the addition or modification of Number Pooling Block Holder information if validation errors occur as defined in RR3-27.1, RR3-27.2, RR3-28.1, RR3-28.2, RR3-31.1.1, RR3-30.1.2, RR3-30.1.3, RR3-31.2, RR3-31.3, and RR3-31.4. **CMA to update numbers once requirements are finalized.**

NOTE: need to add procedures within M&Ps to define steps that should be taken by the NPAC personnel when validation errors are encountered.

**RR3-30.1 Addition of Number Pooling Block Holder Information**

NPAC SMS shall require NPAC personnel to specify the Service Provider Id, the TN range, the effective date and the initial routing information, as defined in the Number Pooling Block Holder Information data model.

**RR3-30.2 Addition of Number Pooling Block Holder Information – Check for pending-like SVs**

NPAC SMS shall issue a warning message to the NPAC personnel at the time of Block Creation, if there are any TNs within the 1K block, that contain an SV with a status of pending/conflict/cancel-pending/failed, and where a currently active SV does NOT exist.

**RR3-30.3 Addition of Number Pooling Block Holder Information – Check for Port-To-Original SVs**

NPAC SMS shall issue a warning message to the NPAC personnel at the time of Block Creation, if there are any TNs within the 1K block, that contain an SV with a status of pending/conflict/cancel-pending/failed, and where the SV is a Port-To-Original port.

**RR3-30.4 Addition of Number Pooling Block Holder Information – Report for pending-like SVs and Port-To-Original SVs**

NPAC SMS shall provide a report to the NPAC personnel of all of the warning messages that are generated at the time of Block Creation, for pending-like SVs and Port-To-Original SVs, for TNs within the 1K block.

**RR3-30.5 Addition and Modification of Effective Date – Tunable Parameter**

NPAC SMS shall provide a Block Holder Effective Date tunable parameter which is defined as the minimum length of time that must be added to the current date to determine a valid effective date.

**RR3-30.6 Addition of Effective Date – Tunable Parameter Default**

NPAC SMS shall default the Block Holder Effective Date tunable parameter to five (5) business days.

NOTE: The value of five (5) days is selected because of the first port notifier, and this could affect SPs operationally if this value is set to less than five days.

**RR3-30.7 Addition of Effective Date – Validation**

NPAC SMS shall verify that the addition of the Effective Date for the Block Holder data is equal to, or greater than, the current date plus the value of the Block Holder Effective Date tunable parameter.

**RR3-30.8~~2~~ Use of Number Pool Default Routing Information – Port-To-Original of Contaminated Numbers with No Sub-Block**

The NPAC SMS shall use the default routing restoration information in the Number Pooling Block Holder Information as the block holder default routing when a ~~or~~ port to original port (block holder) is activated ~~initiated~~ and returns the TN(s) to the block on, or after the effective date of the number pool, provided no Number Pooling Sub-Block Information exists.

~~Note to Reader: “contaminated pooled number” was deleted because this is BAU, and not block default routing restoration.~~

~~Note to Reader: deleted because this is not a valid scenario, sub-block for this is covered in 3-47.~~

**RR3-31.1 Modification of Number Pool Block Holder Information**

NPAC SMS shall allow NPAC personnel to modify the block holder default routing information (LRN, DPC(s), and SSN(s)), and the effective date for a pool of numbers as stored in the NPAC SMS.

NOTE: The modification (RR3-31-1) needs an associated M&P to state that approval for this change must be coordinated with the Pooling Administrator.

**RR3-31.2 Modification of Number Pool Block Holder Information - Effective Date**

NPAC SMS shall allow the NPAC personnel to modify the effective date for a pool of numbers if the current date is less than the effective date for the pool, ~~and the new effective date is equal to or greater than the current date.~~

**RR3-31.3 Modification of Effective Date – Tunable Parameter**

NPAC SMS shall provide a Block Holder Effective Date tunable parameter which is defined as the minimum length of time that must be added to the current date to determine a new effective date.

**RR3-31.4 Modification of Effective Date – Tunable Parameter Modification**

NPAC SMS shall allow the NPAC SMS Administrator to modify the Block Holder Effective Date tunable parameter.

**RR3-31.5 Modification of Effective Date – Validation**

NPAC SMS shall verify that the modification of the Effective Date for the Block Holder data is equal to, or greater than, the current date plus the value of the Block Holder Effective Date tunable parameter.

~~**RR3-31.5 Modification of Effective Date – Tunable Parameter Default**~~

~~NPAC SMS shall default the Block Holder Effective Date tunable parameter to five (5) days.~~

**RR3-31.64 Modification of Number Pool Block Holder Information – Existing Sub-Block(s)**

NPAC SMS shall update any associated Sub-Block Holder Information when modifying Block Holder Information in the NPAC SMS, if only one the sub-block exists for ~~is the only one within~~ the block, and contains the full 1K block of TNs.

**RR3-32 Deletion of Number Pool Block Holder Information – Block Data**

NPAC SMS shall allow NPAC personnel to delete the block holder information for a pool of numbers as stored in the NPAC SMS.

**RR3-~~10032~~ Deletion of Number Pool Block Holder Information – Sub-Block and Subscription Version Data**

NPAC SMS shall process a ~~block~~ delete Block Holder request, by deleting all subordinate subscription versions with LNP Type of POOL by setting status to old, and all subordinate Sub-Blocks by setting status to old.

**RR3-110 Deletion of Number Pooling Block Holder Information – Sending Status Update to Sub-Block and Subscription Versions**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions at the start of the broadcast to the Local SMSs, from an active status to a sending status.

**RR3-~~12032~~ Deletion of Number Pool Block Holder Information – Broadcast of Sub-Block or Subscription Data**

NPAC SMS shall broadcast Pooled data deletes of Sub-Block data, to EDR LSMSs, via the NPAC SMS to Local SMS Interface.



**RR3-130 Deletion of Number Pool Block Holder Information – Broadcast of Subscription Data**

NPAC SMS shall broadcast Pooled data deletes of Subscription data, to non-EDR LSMSs, via the NPAC SMS to Local SMS Interface.

**RR3-~~140~~46 Deletion of Number Pooling Block Holder Information – Old Status Update to Sub-Block and Subscription Versions**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon successful completion of the broadcast to at least one~~ALL~~ Local SMSs, from a sending status to an old status.

**RR3-~~150~~46 Deletion of Number Pooling Block Holder Information – Failed Status Update**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon successful completion of the broadcast to NONE of the Local SMSs, from a sending status to an active status.

**RR3-~~160~~46 Deletion of Number Pooling Block Holder Information – Subscription Version Broadcast Failure to Local SMS**

NPAC SMS shall consider a non-EDR Local SMS to be discrepant, and on the failed SP List, for the Sub-Block, if one or more subscription version disconnect broadcasts were unsuccessful.

**RR3-~~170~~46 Deletion of Number Pooling Block Holder Information – Sub-Block Broadcast Failure to Local SMS**

NPAC SMS shall consider an EDR Local SMS to be discrepant, and on the failed SP List, for the Sub-Block and ALL subscription versions, if the Sub-Block disconnect broadcast was unsuccessful.

~~RR3-46 — Deletion of Number Pooling Block Holder Information — Block Status Update~~

~~NPAC SMS shall update the status of the Block upon status update completion to the subordinate Sub-Blocks and Subscription Versions, to an active/old status.~~

**RR3-~~180~~46 Deletion of Number Pooling Block Holder Information – Block Holder Notification**

NPAC SMS shall send a notification to the Block Holder to update the status of the Sub-Block on the SOA, from an active status to an old status, for a Sub-Block with a SOA Originated Flag set to TRUE.

**RR3-19046 Deletion of Number Pooling Block Holder Information – Code Holder Notification**

NPAC SMS shall send a “de-pool” notification to the Code Holder to indicate that the block has been de-pooled, and the Code Holder should reinstate default routing for the block, but not consider this to be a notification for potential TN re-assignment.

**NOTE: When is the "de-pool" notification sent? How is the step-by-step process actually performed? Need to discuss this in more detail in Baltimore.**

**RR3-200 Deletion of Number Pooling Block Holder Information – Check for pending-like SVs**

NPAC SMS shall issue a warning message to the NPAC personnel at the time of Block Deletion, if there are any TNs within the 1K block, that contain an SV with a status of pending/conflict/cancel-pending/failed, where the Old SP is equal to the Block Holder SPID, or where the SV is a Port-To-Original port.

**RR3-210 Deletion of Number Pooling Block Holder Information – Report for pending-like SVs**

NPAC SMS shall provide a report to the NPAC personnel of all of the warning messages that are generated at the time of Block Creation, for pending-like SVs, where the Old SP is equal to the Block Holder SPID, or Port-To-Original SVs, for TNs within the 1K block.

**RR3-220 Re-Send of Number Pooling Block Holder Information – Sending Status Update to Failed Sub-Block and Failed Subscription Versions**

NPAC SMS shall update the status of the failed Sub-Block and failed Subscription Versions at the start of the re-send to the Local SMSs, from an active status to a sending status.

**RR3-230 Re-Send of Number Pooling Block Holder Information – Sending Status Update to Partially Failed Sub-Block and Partially Failed Subscription Versions**

NPAC SMS shall update the status of the partially failed Sub-Block and partially failed Subscription Versions at the start of the re-send to the Local SMSs, from an old status to a sending status.

**RR3-240 Re-Send of Number Pool Block Holder Information – Broadcast of Sub-Block Data**

NPAC SMS shall broadcast Pooled data re-send deletes of Sub-Block data, to EDR LSMSs, via the NPAC SMS to Local SMS Interface.

**RR3-250 Re-Send of Number Pool Block Holder Information – Broadcast of Subscription Data**

NPAC SMS shall broadcast Pooled data re-send deletes of Subscription data, to non-EDR LSMSs, via the NPAC SMS to Local SMS Interface.

**RR3-33.1 NPA Splits and the Number Pool Block Holder Information – Modification**

NPAC SMS shall upon the start of permissive dialing for an NPA Split convert the old NPA-NXX to the new NPA-NXX in the Number Pooling Block Information if appropriate.

**NOTE: need to update M&P to let everyone know that this is automated at the NPAC, and that all SPs need to deal with the new NPA from this point on.**

**RR3-33.2 NPA Splits and the Number Pool Block Holder Information Table – NXX Removal from Split**

NPAC SMS shall upon the removal of an NPA-NXX from an NPA Split after the start of permissive dialing shall reinstate the original NPA for the NXX in the Block Holder Information.

**RR3-33.3 NPA Splits and the Number Pool Block Holder Information Table – Addition of an NPA-NXX involved in an NPA Split**

NPAC SMS shall convert the old NPA-NXX to the new NPA-NXX for an NPA-NXX involved in an NPA Split upon entry ~~of into~~ the Number Pooling Block Holder Information, if the old NPA-NXX is currently in permissive dialing.

**RR3-34 Number Pool Block Holder information notification of First Port**

NPAC SMS shall upon creation of the Number Pooling Block Holder Information send a notification of the planned first port for the NPA-NXX if there have not been any previous ports for the NPA-NXX.

NOTE: Should check the Portable NPA-NXX Data Model to see if a notification had previously been sent (“NPA-NXX has been Ported” attribute).

**Need to add an M&P for provisioning flow, box 8, to state that NPAC personnel will reject the pooled request back to the Pooling Administrator.**

**RR3-35 Query of Number Pool Block Holder Information**

NPAC SMS shall allow NPAC personnel to query the block holder information for all data as listed in the Block Holder Information Data Model, ~~as well as the Creation Date of the Block,~~ for a pool of numbers as stored in the NPAC SMS.

**RR3-25      Mass Update of “Pooled Number” Subscription Versions - Notification Suppression**

NPAC SMS shall suppress SOA notifications to the current SP (the block holder) for mass updates on Subscription Versions with an LNP Type of POOL, ~~when the Sub-Block SOA-Originated attribute indicates that the NPAC created the pooled TNs.~~

~~NOTE: This applies to the delete of SVs.~~

### NUMBER POOLING SUB-BLOCK HOLDER INFORMATION DATA MODEL

Attribute Name	Type (Size)	Required	Description
Block Holder SPID	C(4)	√	The Service Provider Id of the block holder.
TN Range Start	TN	√	Telephone number at the start of the pool <a href="#">for the 1K Block</a> .
TN Range End	N(4)	√	Last four (4) digits of the telephone number at the end of the pool <a href="#">for the 1K Block</a> .
LRN	TN	√	The LRN is an identifier for the switch on which pooled NPA-NXX-X resides <a href="#">for the 1K Block</a> .
CLASS DPC	N (9)	√	DPC for 10-digit GTT for CLASS features <a href="#">for the 1K Block</a> .
CLASS SSN	N (3)	√	CLASS SSN <del>for the Subscription Versions</del> <a href="#">for the 1K Block</a> .
LIDB DPC	N (9)	√	DPC for 10-digit GTT for LIDB features <a href="#">for the 1K Block</a> .
LIDB SSN	N (3)	√	LIDB SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
CNAM DPC	N (9)	√	DPC for 10-digit GTT for CNAM features <a href="#">for the 1K Block</a> .
CNAM SSN	N (3)	√	CNAM SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
ISVM DPC	N (9)	√	DPC for 10-digit GTT for ISVM features <a href="#">for the 1K Block</a> .
ISVM SSN	N (3)	√	ISVM SSN <del>for the Subscription Version</del> <a href="#">for the 1K Block</a> .
<a href="#">Creation Date</a>	<a href="#">T</a>		<a href="#">The date and time (GMT) that this Sub-Block Holder record was created.</a>
Activation <a href="#">Start</a> Timestamp	T		Date and time (GMT) of the <a href="#">Start of the</a> Activation. This field defines the date and time of the <a href="#">start of the</a> activation request (i.e., the date <a href="#">and time</a> the NPAC <a href="#">begins the</a> broadcasts to the LSMs).
<a href="#">Activation Complete</a>	<a href="#">T</a>		<a href="#">Date and time (GMT) of the Completion of the</a>

## NUMBER POOLING SUB-BLOCK HOLDER INFORMATION DATA MODEL

Attribute Name	Type (Size)	Required	Description
<a href="#">Timestamp</a>			<a href="#">Activation. This field defines the date and time of the completion of the activation request (i.e., the date and time the NPAC receives at least one Local SMS acknowledgment of the broadcast, or the retries were exhausted for the activate).</a>
Last Modified Timestamp	T		Date and time (GMT) of the Last Modification to the Sub-Block.  <a href="#">The default value is the Creation Timestamp.</a>
SOA Origination	B	√	A boolean that indicates whether or not the Service Provider's SOA initiated the Sub-Block over the SOA to NPAC SMS Interface.  This attribute will be set by the NPAC SMS at the time of Sub-Block creation.  <a href="#">SOA Origination is TRUE.</a>  <a href="#">NPAC Origination is FALSE.</a>
Status	E	√	Status of the Sub-Block.  The default value is <b>SP</b> for <b>SP</b> ending.  Valid enumerated values are: A - Active (0) S - Sending (1) F - Failed (2) PF - Partial Failure (3) O - Old (4)

**NOTE: The Sub-Block Holder Information Data, can be initiated by either NPAC Personnel or over the SOA Interface, and notifications may be sent or suppressed to the SOA or LSMS, depending on the EDR flag value in the SP profile, and the SOA Originator Flag in each Sub-Block record.**

**RR3-17 Service Provider EDR Indicator Download of Sub-Block Object**

NPAC SMS shall download Number Pooling Sub-Block Information, for additions, modifications, and deletions, using the Number Pooling Sub-Block Object, via the NPAC SMS to Local SMS Interface if the EDR indicator is **TRUEON**.

**NOTE: NANC 139 needs to be updated to add this as a broadcast to the SOA.**

**RR3-18 Service Provider EDR Indicator Download of SVs**

NPAC SMS shall download Number Pooling Sub-Block Information, for additions, modifications, and deletions, using individual subscription versions with LNP Type of POOL, via the NPAC SMS to Local SMS Interface if the EDR indicator is **FALSEOFF**.

~~**RR3-19 Modification of Service Provider EDR Indicator**~~

~~NPAC SMS shall allow NPAC personnel to modify the EDR Indicator on the NPAC Customer record.~~

**RR3-30035 Number Pool Sub-Block Holder Information – Service Provider Validation**

NPAC SMS shall validate that the Block Holder SPID ~~attribute of the Sub-Block in the~~ request for additions, ~~modifications, and deletions,~~ is equal to the SPID making the request in the SOA to NPAC SMS Interface.

**NOTE: this relates to the AccessControl portion of the CMIP Association.**

**RR3-310 Number Pool Sub-Block Holder Information – SPID Validation**

NPAC SMS shall validate that the Block Holder SPID attribute of the Sub-Block request for additions, is equal to the SPID of the requestor making the request.

**RR3-32035 Number Pool Sub-Block Holder Information – Block Data Validation**

NPAC SMS shall validate that the Block Holder SPID in the Sub-Block is equal to the Block Holder SPID, TN Range Start in the Sub-Block is equal to ~~or greater than~~ the TN Range Start, and the TN Range End in the Sub-Block is equal to ~~or less than~~ the TN Range End, in one of the valid Number Pooling Blocks defined in the NPAC SMS.

**RR3-36 Number Pool Sub-Block Holder Information – Block Effective Date**

NPAC SMS shall reject a request to create or modify a Sub-Block if the current date is prior to the effective date of the Number Pooling Block as defined in the NPAC SMS.

**RR3-37 Number Pool Sub-Block Holder Information – LRN Validation**

NPAC SMS shall validate that the LRN specified in the addition or modification of Number Pooling Sub-Block Holder information is a valid LRN defined in the NPAC SMS for the block holder. May need to change to state exact LRN match from block holder, if we agree on this later.

**RR3-38 Number Pool Sub-Block Holder Information – No Overlapping Sub-Block Validation**

NPAC SMS shall validate that the TN range specified in the addition or modification of Number Pooling Sub-Block Holder Information does not overlap with a TN in a range for another entry in the Number Pooling Sub-Block Holder Information.

**RR3-39 Number Pool Sub-Block Holder Information – Block in one NPA-NXX**

NPAC SMS shall validate that the range specified for a sub-block of numbers to be pooled is contained in one NPA-NXX-X, where the range of stations ~~fall between~~ [matches](#) 000 and 999, inclusive.

**RR3-40 Number Pool Sub-Block Holder Information – Minimum Sub-Block Size Tunable Parameter**

NPAC SMS shall provide a Minimum Sub-Block Size tunable parameter, which is defined as the minimum number of TNs in a sub-block.

**RR3-41 Number Pool Sub-Block Holder Information – Minimum Sub-Block Size Tunable Parameter Modification**

NPAC SMS shall allow the NPAC SMS Administrator to modify the Minimum Sub-Block Size tunable parameter.

**RR3-42 Number Pool Sub-Block Holder Information – Minimum Sub-Block Size Tunable Parameter Default**

NPAC SMS shall default the Minimum Sub-Block Size tunable parameter to 1000 TNs.

**RR3-43 Number Pool Sub-Block Holder Information – Minimum Sub-Block Size Processing**

NPAC SMS shall use the Minimum Sub-Block Size tunable parameter to determine the threshold for processing Sub-Block creation requests, and will reject requests below the minimum size.

[STOPPED HERE, Denver, 7/31.](#)

**RR3-~~320~~43 Number Pool Sub-Block Holder Information – Originator**

NPAC SMS shall set the SOA Originated Indicator based on the origination point for the Sub-Block creation, where this value is TRUE for Sub-Blocks sent over the SOA, and FALSE for Sub-Blocks that were created by NPAC personnel.



**RR3-44 Number Pool Sub-Block Holder Information – Validation Error**

NPAC SMS shall report an error to the user and reject the addition or modification of Number Pooling Block Holder information if validation errors occur as defined in RR3-35, RR3-36, RR3-37, RR3-38, RR3-39, RR3-40, RR3-41, RR3-42, RR3-43, RR3-44, RR3-46, RR3-47, RR3-48, RR3-49, RR3-50, RR3-51, RR3-52, RR3-53, RR3-54, RR3-55, RR3-56, RR3-57, and RR3-58.

**RR3-33046 Number Pooling Sub-Block Holder Information – Status Update Notification**

NPAC SMS shall send SOA notifications to the current SP (the block holder) for status updates on Subscription Versions with an LNP Type of POOL, when the Sub-Block SOA Originated attribute ~~is TRUE indicates that the SOA created the pooled Sub-Block.~~

**RR3-34046 Number Pooling Sub-Block Holder Information – Status Update Notification Suppression**

NPAC SMS shall suppress SOA notifications to the current SP (the block holder) for status updates on Subscription Versions with an LNP Type of POOL, when the Sub-Block SOA Originated attribute ~~is FALSE indicates that the NPAC created the pooled Sub-Block.~~

**RR3-35046 Number Pooling Sub-Block Holder Information – Failed SP List Update**

NPAC SMS shall update the Sub-Block with a Failed SP List, based on an EDR Local SMS failing to process the Sub-Block Object, or a non-EDR Local SMS failing to process one or more Subscription Versions within the Sub-Block.

**RR3-36046 Number Pooling Sub-Block Holder Information – Failed SP List Broadcast**

NPAC SMS shall broadcast a Failed SP List, to the current SP (the block holder) via the SOA to NPAC SMS Interface, along with the SOA notification for status update.

**RR3-37045 Addition of Number Pooling Sub-Block Holder Information**

NPAC SMS shall allow NPAC personnel or Service Provider via the SOA to NPAC SMS interface to request the creation of a Number Pooling Sub-Block.

**RR3-38045 Addition of Number Pooling Sub-Block Holder Information – Required Data**

NPAC SMS shall require NPAC personnel or Service Provider via the SOA to NPAC SMS interface to specify the Service Provider Id, the TN range, and the initial routing information, as defined in the Number Pooling Sub-Block Holder Information data model.

~~**RR3-46 — Addition of Number Pooling Sub-Block Holder Information — Optional Data**~~

~~NPAC SMS shall allow NPAC personnel or Service Provider via the SOA to NPAC SMS interface to optionally specify the activation timestamp (stored in GMT) as defined in the Number Pooling Sub-Block Holder Information data model at the time of initial creation.~~

**RR3-40046 Addition of Number Pooling Sub-Block Holder Information – Service Provider Data**

NPAC SMS shall verify that the Old and New Service Provider IDs exist in the NPAC SMS at the time of initial Sub-Block creation.

**Requirement 3 Addition of Number Pooling Sub-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, if supplied, is valid according to the formats specified in Table 3-x upon Sub-Block creation for a Number Pool:

- ?4 Block Holder SPID
- ?5 TN Range Start
- ?6 TN Range End
- ?7 LRN
- ?8 Class DPC
- ?9 Class SSN
- ?10 LIDB DPC
- ?11 LIDB SSN
- ?12 CNAM DPC
- ?13 CNAM SSN
- ?14 ISVM DPC
- ?15 ISVM SSN
- ?16 ~~Activation Timestamp~~

**RR3-41046 Addition of Number Pooling Sub-Block Holder Information – Subscription Data**

NPAC SMS shall create individual subscription versions, with LNP Type of POOL, for each TN within a Sub-Block, that does not already exist with a status of pending/conflict/cancel-pending/failure, immediately after successfully creating a Number Pooling Sub-Block in the NPAC SMS.

**RR3-42046 Addition of Number Pooling Sub-Block Holder Information – Broadcast of Sub-Block ~~or Subscription~~ Data**

NPAC SMS shall broadcast Pooled data additions of Sub-Block data, to EDR LSMSs, via the NPAC SMS to Local SMS Interface, upon successful creation of the Pooled Sub-Block ~~and Pooled Subscription Versions~~ in the NPAC SMS.

**RR3-425 Addition of Number Pooling Sub-Block Holder Information – Broadcast of Subscription Data**

NPAC SMS shall broadcast Pooled data additions of Subscription data, to non-EDR LSMSs, via the NPAC SMS to Local SMS Interface.

**RR3-43046 Addition of Number Pooling Sub-Block Holder Information – Active Status Update**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon successful completion of the broadcast to ALL Local SMSs, from a sending status to an active status.

**RR3-44046 Addition of Number Pooling Sub-Block Holder Information – Partially Failed Status Update**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon successful completion of the broadcast to SOME, but not all Local SMSs, from a sending status to a partially failed status.

**RR3-45046 Addition of Number Pooling Sub-Block Holder Information – Failed Status Update**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon successful completion of the broadcast to NONE of the Local SMSs, from a sending status to a failed status.

**RR3-46046 Addition of Number Pooling Sub-Block Holder Information – Subscription Version Broadcast Failure to Local SMS**

NPAC SMS shall consider a non-EDR Local SMS to be discrepant, and on the failed SP List, for the Sub-Block, if one or more subscription version activation broadcasts were unsuccessful.

**RR3-47046 Addition of Number Pooling Sub-Block Holder Information – Sub-Block Broadcast Failure to Local SMS**

NPAC SMS shall consider an EDR Local SMS to be discrepant, and on the failed SP List, for the Sub-Block and ALL subscription versions, if the Sub-Block activation broadcast was unsuccessful.

**RR3-480 Filters for “Pooled Number” Sub-Blocks**

NPAC SMS shall apply NPA and/or NPA-NXX (Accepted) Filters to Sub-Block downloads to the Local SMS(s) for pooled number ports.

**RR3-47 Use of Number Pool Default Routing Information – Existing Sub-Block**

The NPAC SMS shall use the default routing restoration information in the Number Pooling Sub-Block Holder Information as the block holder default routing when a ported pooled number is disconnected or port to original port and returns the TN(s) to the block, on or after the activation date of sub-block.

**RR3-48 Modification of Number Pooling Sub-Block Holder Information**

NPAC SMS shall allow NPAC personnel or Service Provider via the SOA to NPAC SMS interface to modify the sub-block holder default routing information (LRN, DPC(s), and SSN(s)), for a pool of numbers as stored in the NPAC SMS for default routing restoration.

**RR3-49046 Modification of Number Pooling Sub-Block Holder Information – Subscription Data**

NPAC SMS shall update individual subscription versions, with LNP Type of POOL, for each TN within a Sub-Block immediately after successfully modifying a Number Pooling Sub-Block in the NPAC SMS.

**RR3-50046 Modification of Number Pooling Sub-Block Holder Information – Broadcast of Sub-Block ~~or Subscription~~ Data**

NPAC SMS shall broadcast Pooled data modifications, via the NPAC SMS to Local SMS Interface, upon successful modification of the Pooled Sub-Block ~~and Pooled Subscription Versions~~ in the NPAC SMS.

**RR3-510 Modification of Number Pooling Sub-Block Holder Information – Broadcast of Subscription Data**

NPAC SMS shall broadcast Pooled data modifications, via the NPAC SMS to Local SMS Interface, upon successful modification of the Pooled Subscription Versions in the NPAC SMS.

**RR3-52046 Modification of Number Pooling Sub-Block Holder Information – Active Status Update**

NPAC SMS shall update the status of the Sub-Block and Subscription Versions upon completion of the broadcast to ALL Local SMSs, whether or not the broadcasts were successful, from a sending status to an active status.

**RR3-53046 Modification of Number Pooling Sub-Block Holder Information – Subscription Version Broadcast Failure to Local SMS**

NPAC SMS shall consider a non-EDR Local SMS to be discrepant, and on the Failed SP List, for the Sub-Block, if one or more subscription version modify active broadcasts were unsuccessfully.

**RR3-54046 Modification of Number Pooling Sub-Block Holder Information – Sub-Block Broadcast Failure to Local SMS**

NPAC SMS shall consider an EDR Local SMS to be discrepant, and on the Failed SP List, for the Sub-Block and ALL subscription versions, if the Sub-Block modify active broadcast was unsuccessfully.

**RR3-50 Deletion of Number Pool Sub-Block Holder Information**

NPAC SMS shall reject a request to delete a Sub-Block by NPAC personnel or Service Provider via the SOA to NPAC SMS interface.

NOTE: need error messaging, possibly use “processing failure 14018, with string”..

**RR3-51 NPA Splits and the Number Pooling Sub-Block Holder Information – Modification**

NPAC SMS shall upon the start of permissive dialing for an NPA Split convert the old NPA-NXX to the new NPA-NXX in the Number Pooling Sub-Block Information, if appropriate.

**RR3-52 NPA Splits and the Number Pooling Sub-Block Holder Information – NXX Removal from Split**

NPAC SMS shall upon the removal of an NPA-NXX from an NPA Split after the start of permissive dialing shall reinstate the original NPA for the NXX in the Sub-Block Holder Information.

**RR3-53 NPA Splits and the Number Pool Sub-Block Holder Information – Addition of an NPA-NXX involved in an NPA Split**

NPAC SMS shall convert the old NPA-NXX to the new NPA-NXX for an NPA-NXX involved in an NPA Split upon entry into the Number Pooling Sub-Block Holder Information, if the old NPA-NXX is currently in permissive dialing.

**RR3-20 Bulk Database Extracts – Sub-Block**

NPAC SMS shall periodically perform NPAC SMS database extracts of active Sub-Blocks on a Service Provider basis to an ASCII file.

**RR3-21 Scope of Extract File Creation – Sub-Block**

NPAC SMS shall allow NPAC personnel to specify a Service Provider for database extract file creation of active Sub-Blocks.

**RR3-22 Parameters of Extract File Creation – Sub-Block**

NPAC SMS shall allow NPAC personnel to specify the following parameters for database extract file creation of active Sub-Blocks:

- Block Holder SPID
- TN Range Start
- TN Range End
- LRN
- CLASS DPC
- CLASS SSN
- LIDB DPC
- LIDB SSN
- CNAM DPC
- CNAM SSN
- ISVM DPC
- ISVM SSN
- Activation [Start](#) Timestamp
- [Activation Complete Timestamp](#)
- Last Modified Timestamp
- SOA Origination

**RR3-23 Bulk Download File Creation – Sub-Block**

NPAC SMS shall allow NPAC personnel to request a bulk download file for Sub-Block data via the NPAC Administrative Interface.

**RR3-24 Resynchronization – Sub-Block**

NPAC SMS shall process a Service Provider request to download Sub-Block data over the NPAC SMS to Local SMS Interface, when a Service Provider establishes an association with the resynchronization flag set to TRUE.

## **Section 5 New Requirements**

### *Subscription Version Creation - Number Pooling Ports – Pre Port*

This section provides the Subscription Version Creation requirements for performing a Number Pooling port of a TN. This will cause the pooled numbers to be owned by a new service provider (the block holder) for distribution to their customers.

#### **Requirement 1 Create “Pooled Number” Subscription Version**

NPAC SMS shall automatically populate the following data from the associated Sub-Block upon Subscription Version creation for a Pooled Number port:

- ?17 Local Number Portability Type - Port Type. This field must be set to “POOL” for an LNP pooled number port.
- ?18 Ported Telephone Numbers - this entry is a continuous range of TNs that identifies a group of Subscription Versions that have not previously been ported.
- ?19 Due Date - date on which transfer of service of a number pool from an old facilities-based Service Provider to new facilities-based Service Provider is initially planned to occur. This field will be set to the current date.
- ?20 New Facilities-based Service Provider ID - the identifier of the new facilities-based Service Provider (the service provider identified in the block holder information table as the new block holder).
- ?21 Old Facilities-based Service Provider ID - the identifier of the old facilities-based Service Provider that is the code holder (i.e. the current owner of the block).
- ?22 Authorization from old facilities-based Service Provider - indication that the ported-from Service Provider authorizes the transfer of the pooled numbers. This value will be set to TRUE by the NPAC SMS and can not be changed.
- ?23 Status Change Cause Code - indication of reason for denial of authorized by the Old Service Provider. This field will be set to “no value” by the NPAC SMS.
- ?24 Porting to Original - flag indicating whether or not this is a “porting to original” port. This flag will be set to “FALSE” for a Pooled Number port by the NPAC SMS.

**Requirement 2 Create “Pooled Number” Subscription Version - New Service Provider  
Optional input data**

NPAC SMS shall automatically populate the following optional fields upon Subscription Version creation for a Pooled Number port:

?25 Billing Service Provider ID – This field will be set to “no value” by the NPAC SMS.

?26 End-User Location - Value – This field will be set to “no value” by the NPAC SMS.

?27 End-User Location - Type – This field will be set to “no value” by the NPAC SMS.

**Requirement 9 Create “Pooled Number” Subscription Version – Subscription Version  
Validation**

NPAC SMS shall verify that there are no subscription versions with pending, conflict, cancel-pending, or failure status that exist for any of the TN’s in the specified Number Pool Block information upon Subscription Version creation for a Pooled Number port.

**NOTE: If this situation arises, it will need to be resolved via M&Ps, since the failure should have occurred at the Sub-Block creation.**

**Requirement 10.1 Create “Pooled Number” Subscription Version – No Override of  
Existing Subscription Versions**

NPAC SMS shall not affect any existing subscription versions with an active, partial failure, disconnect pending, old with a failed LSMS list, or sending status that exist in the number pool for a Pooled Number Port.

**Requirement 10.2 Create “Pooled Number” Subscription Version – Bypass of Existing  
Subscription Versions**

NPAC SMS shall upon finding an existing subscription version with an active, partial failure, disconnect pending, old with a failed LSMS list, or sending status in the number pool for a Pooled Number Port will bypass and not alter that TN/subscription version, log an information message, and continue processing.

**Requirement 11 Create “Pooled Number” Subscription Version - Validation Failure  
Notification**

NPAC SMS shall send an appropriate error message to the originating NPAC personnel user if any of the validations listed in Requirements 3.3, 4, 5.1, RR5-6.4.2, RR5-6.4.3, 6, 7, 8, 9, 10 fail upon Subscription Version creation for a Pooled Number port.

**CMA Comment → need to update requirements list above and below, once numbers are finalized.**

**Requirement 12 Create “Pooled Number” Subscription Version - Validation Failure - No Create**

NPAC SMS shall not create a new Subscription Version, if any of the validations fail listed in Requirements 3.3, 4, 5.1, 5.2, RR5-6.4.2, RR5-6.4.3, 6, 7, 8, 9, 10 upon Subscription Version creation for a Pooled Number port.

**Requirement 13 Create “Pooled Number” Subscription Version - Validation Success - Create New**

NPAC SMS shall create a new Subscription Version if all validations pass at the time of Subscription Version creation for a Pooled Number port of Subscription Versions.

**Requirement 14.1 Create “Pooled Number” Subscription Version - Set to Active**

NPAC SMS shall set a Subscription Version to active upon successful subscription creation.

**Requirement 14.2 Create “Pooled Number” Subscription Versions – No Notifications**

NPAC SMS shall suppress all notifications to the old and new service provider SOA systems for Pooled Number ports of Subscription Versions.

**Requirement 14.3 Filters for “Pooled Number” Subscription Versions**

NPAC SMS shall apply NPA and/or NPA-NXX (Accepted) Filters to subscription versions downloads to the Local SMS(s) for pooled number ports.

**Requirement 17 “Pooled Number” Subscription Version – Reject Messages**

NPAC SMS shall reject a message from NPAC personnel or a Service Provider SOA to Create, Modify Pending, Activate, Modify Active, [Cancel](#), [Conflict](#), or Disconnect, a Subscription Version with an LNP Type of POOL.

**Requirement 18~~7~~ Create Inter-Service Provider Subscription Version – After Block Effective Date**

NPAC SMS shall validate that the Old Service Provider is the Block Holder, in an inter-service provider port, if there ~~are~~ ~~no~~ active Subscription Versions in the NPAC SMS [is LNPT](#) ~~of~~ [POOL](#).

**Requirement 19~~7~~ Create Intra-Service Provider Subscription Version – After Block Effective Date**

NPAC SMS shall validate that the Old Service Provider is the Block Holder, in an intra-service provider port, if there ~~are~~ ~~no~~ active Subscription Versions in the NPAC SMS [is LNPT](#) ~~of~~ [POOL](#).



**Requirement 20~~17~~ Create Inter-Service Provider Port-to-Original Subscription Version – After Block Effective Date**

NPAC SMS shall validate that the Old Service Provider is the Block Holder, and the currently active Subscription Version in the NPAC SMS does NOT belong to the Block Holder, in an inter-service provider port-to-original port.

**Assumption – Number Pool Lifetime**

Once a TN is pooled in the NPAC SMS it will remain in the pool until a subsequent port occurs.

**Requirement 21~~16~~ – Disconnect Subscription Version – Pooled Number Sub-Block Holder Default Routing Restoration**

The NPAC SMS shall reinstate the Sub-Block holder default routing, block holder Service Provider Id and the LNP Type to POOL for a subscription version upon a disconnect for a TN belonging to a pool.

**Requirement 22~~17~~ - Disconnect Subscription Version - Customer Disconnect Date Notification for Pooled Number**

NPAC SMS shall notify the new Service Provider (the block owner) of the Subscription Version Customer Disconnect Date and Effective Release Date immediately prior to reinstating the default routing.

**Requirement 23~~16~~ – Disconnect Subscription Version – Broadcast of Subscription Data Creation**

The NPAC SMS shall broadcast a new Subscription Version Create to a non-EDR Local SMS, upon deleting an inter-ported or intra-ported Subscription Version, where the TN is within the range of a Pooled Block.

**Requirement 24~~16~~ – Disconnect Subscription Version – Broadcast of Subscription Data Deletion**

The NPAC SMS shall broadcast a Subscription Version Delete to an EDR Local SMS, upon deleting an inter-ported or intra-ported Subscription Version, where the TN is within the range of a Pooled Block.

**Section 5.1.3.2 System Functionality**

**RR5-44 Query Subscription Version – LNP Type of POOL**

NPAC SMS shall on query requests by authorized NPAC personnel, SOA to NPAC SMS interface users, or NPAC SMS to Local SMS interface return subscription versions with LNP Type of POOL that match the query selection criteria.

**RR5-454 Query Sub-Block**

NPAC SMS shall on query requests by authorized NPAC personnel, or SOA to NPAC SMS interface users, return Sub-Block data that match the query selection criteria.

## Section 5 Modified Requirements

### Section 5.1.2.2 System Functionality

**R5-19.2 Create Subscription Version – Old Service Provider ID Validation – No Active Subscription Version and No Sub-Block**

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables), ~~or is the Service Provider to which the TN's NPA-NXX-X is assigned (as stored in the NPAC SMS Number Pooling Block Holder data tables)~~, if there is currently no active Subscription Version for the TN in the NPAC SMS, and if there is no entry for the TN's NPA-NXX-X (as stored in the NPAC SMS Number Pooling Block Holder data tables).

**R5-19.3 Create Subscription Version – Old Service Provider ID Validation – No Active Subscription Version with Sub-Block**

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX-X is assigned (as stored in the NPAC SMS Number Pooling Block Holder data tables), if there is currently no active Subscription Version for the TN in the NPAC SMS, and there is an entry for the TN's NPA-NXX-X (as stored in the NPAC SMS Number Pooling Block Holder data tables).

**R5-6.9 Create “Intra-Service Provider Port” Subscription Version – Old Service Provider ID Validation – No Active Subscription Version and No Sub-Block**

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables), ~~or is the Service Provider to which the TN's NPA-NXX-X is assigned (as stored in the NPAC SMS Number Pooling Block Holder data tables)~~, if there is currently no active Subscription Version for the TN in the NPAC SMS, and if there is no entry for the TN's NPA-NXX-X (as stored in the NPAC SMS Number Pooling Block Holder data tables).

**R5-6.10 Create “Intra-Service Provider Port” Subscription Version – Old Service Provider ID Validation – No Active Subscription Version**

NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX-X is assigned (as stored in the NPAC SMS Number Pooling Block Holder data tables), if there is currently no active Subscription Version for the TN in the NPAC SMS, and there is an entry for the TN's NPA-NXX-X (as stored in the NPAC SMS Number Pooling Block Holder data tables).

## Section 6 New Requirements

### RR6-15 – Sub-Block Resynchronization Filter Usage

NPAC SMS shall, for a Sub-Block Resynchronization request, over the NPAC SMS to Local SMS Interface, only send Sub-Blocks that are not filtered on the Local SMS.

## Section 8 New Requirements

### Requirement ~~2518~~ – Audit Discrepancy and Results Notifications for Pooled Number Subscription Versions

NPAC SMS shall for audits of Subscription Versions with LNP Type of POOL send notifications of discrepancies found and audit results to the requesting SOA. Note: This would mean that a SOA (like today) could potentially get a discrepancy notification for a TN that is not present in the SOA database.

### Requirement ~~2619~~- Audit Status Attribute Value Change Notification Suppress for Pooled Number Subscription Versions.

NPAC SMS shall for audits of Subscription Versions with LNP Type of Pool suppress status changes for discrepancy corrections to the block holder (current SP).

NOTE: The “suppress status changes” approach should work for both EDR and non-EDR SPs. Therefore, the NPAC SMS should suppress these based on the LNPTYPE, and not take into account the value of the EDR flag for the SP.

NOTE: Determination of how audits should be handled for a sub-block needs to be done. Should the LSMS return the block or SV’s. It would be cheaper or NPAC processing if SV’s were returned. The SVID’s might be an issue.

### R8-16.1 Flow of Audit Execution – Pooled Numbers to EDR Local SMS

NPAC SMS shall send a query for a Sub-Block and a query for a Subscription Version, resulting from the audit request, to an EDR Local SMS that is accepting Sub-Block and Subscription Version data download for the given NPA-NXX-X via the NPAC SMS to Local SMS interface, as described in the NPAC SMS Interoperable Interface Specification.

### Req ~~2719~~ Ignore missing SVs for Pooled Ports at EDR Local SMS

NPAC SMS shall ignore a query response of a missing Subscription Version from an EDR Local SMS, for a pooled port.

**Req ~~28~~19      Suppress Notifications for Discrepancy Corrections for Pooled Ports at EDR  
Local SMS**

NPAC SMS shall suppress status notifications to the Block Holder SOA for audit discrepancy corrections of Subscription Versions with LNP Type of POOL.

## **Section 9 New Requirements**

**RR9-5      Pooled Number Report**

NPAC SMS shall support reports that list all numbers in a pooled number block (NPA-NXX-X) for a block holder for NPAC personnel using the NPAC Administrative Interface and Service Provider personnel using the NPAC SOA Low-tech Interface.

**RR9-6      Pooled Number Report – Data Elements**

NPAC SMS shall support a pooled number report that contains the following data elements:

- TN (primary sort)
- SV id
- LNP Type
- activation date
- LRN

**RR9-7      Pooled Number Report – Filters**

NPAC SMS shall support a pooled number report that allows filters on LNP Type, to return TNs with either POOL, LSPP, or LISP type.

**RR9-8      Pooled Number Report – Block Holder History**

NPAC SMS shall support a pooled number report that contains Block Holder History for the following data elements:

- Code Holder
- Block Holder
- TN Range
- Effective Date

## **General Comments**

**CONTAMINATED BLOCK HANDLING IS NOT ENFORCED BY THE NPAC.  
CONTAMINATED BLOCK ASSIGNMENT IS LEFT TO THE POOLING  
ADMINSTRATOR.**

~~NOTE: ASN, GDMO, and M&P sections below need to be modified when requirements near completion.~~

## **~~ASN.1 Modifications~~**

## **~~GDMO Modifications~~**

- ~~1. The GDMO should lists the activation timestamp in the Sub-Block as read-only, and it should be set based on the time the activation occurs.~~

## **M&P FOR NUMBER POOLING**

Miscellaneous M&P Issues:

1. The NPAC personnel can modify the activation date (that was originally on the Pooling Form, that is used for NPAC personnel doing the PP of the 1K block [both block and sub-block] ) in the “script/schedule”, but it must be modified to something equal to or greater than the effective date.
2. Need to add procedures within M&Ps to define steps that should be taken by the NPAC personnel when validation errors are encountered.
3. Need to add M&Ps to state that when NPAC personnel are creating a Sub-Block, and the SP provides an activation date, then the NPAC personnel must convert and store this in GMT.
4. Need an M&P on the Service Provider side to clean up SVs prior to implementing the new Sub-Block Object (this should be done in a migration plan).

5. Need to figure out how NPAC personnel, will determine if the sub-block is successful or not, for the broadcast.  
May need to create the sub-block table when the activation date/time is reached.

## **POOLING ADMINISTRATOR ISSUES**

1. Need to verify that the Number Pooling form contains the “auto activation date” on the form, so that the Lockheed USA knows the date that the auto activation timestamp should be added as a “script/schedule”.