



# **Intra SP Block Transfer Process** ***(For NPAC Software Release 3.0)***

August 30, 2001

## **Intra SP Block (NXX-X) Transfer (Background)**

Before the Telecommunications Act of 1996, competition between telecommunication carriers was minimal. Central Office codes commonly known as a **NXX** (NPA-NXX-XXXX) or a block of 10,000 numbers, were in plentiful supply and readily available to existing Local Exchange Carriers (LECs). Little thought was ever given to telephone number conservation. If a LEC inadvertently asked for more numbers than they needed, it was common practice to hold the numbers until some future date, when they might be used. It was not uncommon to see CO Codes assigned to a LEC, sit unused for years. During this period, it was rare to see a CO Code taken out of service or returned, so that the CO Code could be reassigned. In the rare case where a CO Code was taken out of service, or returned, it was a relatively simple matter to give the CO Code back and then reassign the code. If there were a few working customers in the CO Code, they were simply given a telephone number change to remove the customer from the CO Code being returned.

With the implementation of the Telecommunications Act of 1996, Local Number Portability (LNP) was introduced, and competition blossomed as numerous new Competitive Local Exchange Carriers (CLECs) entered the market. CLECs entering into business for the first time, required telephone numbers to serve customers in the markets they were entering as well as being able to port a customer away from a competitor. In addition to CLECs entering the market, Cellular service has seen dramatic growth and new products have been developed which are dependent on the availability of telephone numbers. All of this combined has required opening new CO Codes at an alarming rate.

As CO Codes continued to be opened, regulators and industry alike looked for ways to minimize the opening of new CO Codes and to maximize the use of existing numbers in CO Codes which have already been opened. One of the methods, which has been, and continues to be used successfully, is Number Pooling. Other methods have included Rate Center Consolidation (RCC), sequential numbering, and utilization percentages which companies are required to reach before new resources will be assigned (blocks or CO Codes).

In 1999, the FCC issued the first of several Number Resource Optimization (NRO) orders which ordered several optimization measures on a national scale and allowed states to apply for delegated authority to implement specific optimization methods by state. The combined result of all of the above orders (and optimization methods) has inalterably changed the telecommunications landscape, and the way telecommunications carriers manage their numbering resources.

One of the issues that telecommunications carriers currently have to consider is the forecasting, of how many numbers (or 1K blocks in pooling areas) that they can keep in their allowable six-month inventory. Various states are questioning telecommunications carriers about the amount of numbers they are keeping in their six-month inventory, and

are asking the carriers to voluntarily return resources. Forecasting, utilization and the ultimate assignment of numbering resources (CO Codes and 1K Blocks) are based on a rate center concept. While basing the forecasting, utilization and assignment of numbering resources on a rate center basis has proven to be a workable solution, it also has proven to provide additional challenges for those SP's who have multiple switches in a rate center. In instances where a SP with multiple switches in a rate center requires numbering resources across the multiple switch's, and then based on their utilization, they may only be able to get enough resources to serve one switch in the rate center. For example:

A Service Provider that has a 65% utilization in a rate center where they have multiple switches, and LNP is deployed, but not number pooling, is eligible to request a full code, which will need to be assigned to one switching entity (switch A). After they have received a full CO Code for switch A; switch B reaches 65% utilization and they have a major customer who requires 4,000 numbers. Due to the fact that they have just received a full CO Code for switch A, the overall utilization for the rate center does not reach 65%, leaving them ineligible to receive an additional CO Code. While there are remedies to the situation (Intra SP porting using LNP, regulatory pleadings, etc), it remains a fact that even if they do an Intra SP port, and port a portion of the numbers between switches, this may be difficult to administer in their OSS's, as the numbers will always "snapback" to the original switch. The numbers then cannot be managed the same as numbers that are native to switch B. In the same scenario, regulatory proceedings tend to be slow and cumbersome and in this scenario, if regulatory relief were granted to provide service for a major customer needing 4,000 numbers, there would be an inefficient use of numbers in both switches when another full CO Code is assigned that may not be needed.

There are similar situations in areas where pooling has been deployed, albeit on a smaller scale, but no less an inefficient use of numbering resources. For example a scenario similar to that above could occur in a pooling area where switch A had just been assigned a 1K block, which the SP intends to use 500 of the numbers for a customer. Switch B has 3,500 numbers available that were kept upon the initial deployment of pooling to maintain the six-month inventory for the rate center. The SP receives another customer request of 600 numbers for service in the rate center, and due to the features the customer requests they cannot serve the customer from switch B, but have to serve the customer from switch A. The overall utilization for the rate center does not reach 65%, so the SP cannot get additional resources for switch A, and cannot meet the customer request from switch B. Allowing the SP to Intra SP port numbers from switch B to switch A with a port type of pool, allows the SP to meet the customers demand and utilizes the numbers efficiently, while making the administration of the numbers with their OSS's easier. Due to the difficulty of forecasting in a competitive environment where a SP has multiple switches, allowing blocks of numbers to be Intra SP ported (with a port type of pool) between switches can be a very efficient use of numbering resources.<sup>1</sup>

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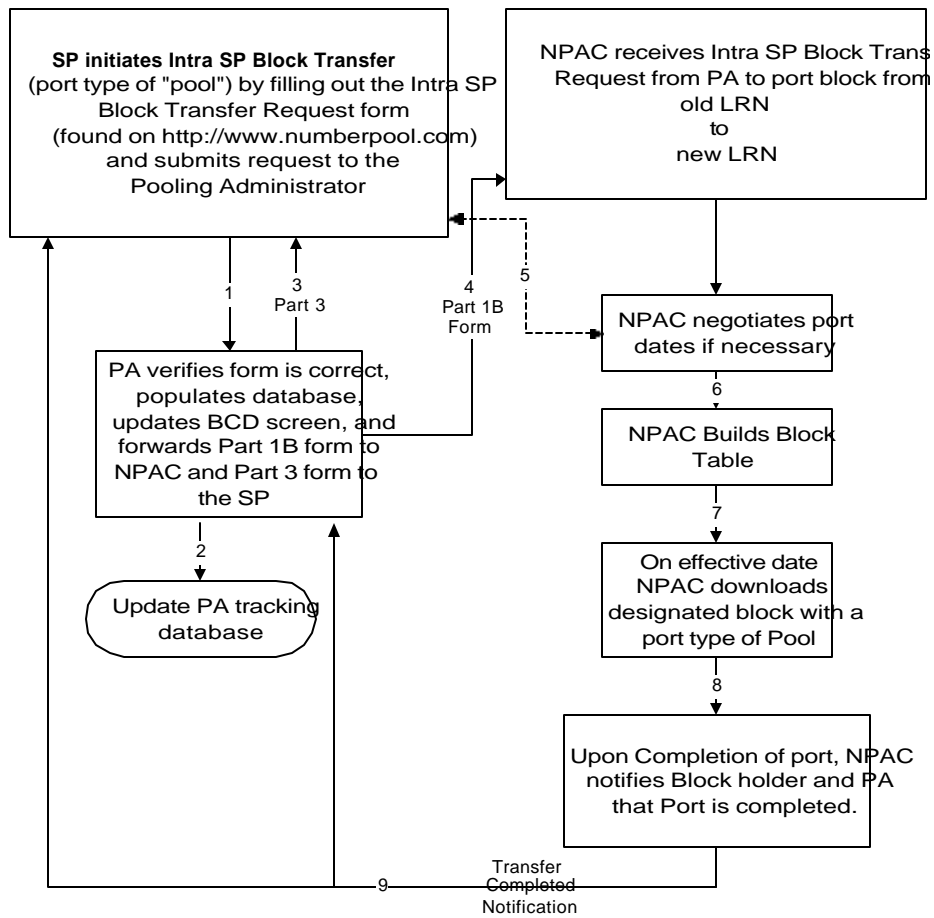
<sup>1</sup> Due to software restrictions, this capability can only be deployed where NPAC software release 3.0 or greater has been deployed (the block holder cannot equal the code holder in NPAC software releases prior to 3.0)

The attached documents, detail a procedure that can be applied via the Pooling Administrator and NPAC to meet the needs of a SP to Intra SP port (with a port type of pool) in an area where LNP has been deployed, regardless of whether pooling has been deployed or not in the area of portability. In an area of LNP where pooling has not been deployed, tracking of the numbers ported with a port type of "pool" is necessary to resolve discrepancies that may arise when regulatory agencies compare ported numbers versus those that are pooled. Without some way to rectify the discrepancies, resulting data may be skewed to the possible detriment of the industry and regulatory agencies, which may depend on accurate data to make intelligent decisions affecting numbering resources.

The attached documents provide a flow chart of the process (with notes and footnotes) and copies of the necessary forms that detail the process from the SP, PA and NPAC perspectives. This process has been developed with the participation of the NPAC and the PA, and will work equally well from both entities with the addition of new Intra SP Block Transfer Part 1B form and Part 3 forms.

NeuStar offers this process for a possible trial, in the State of New York, and/or other states (if so desired) in areas where LNP has been implemented (in conjunction with NPAC release 3.0 or greater), for the period of six months, at which time; the participants will evaluate the trial. If the LLC concurs with the attached process, no additional cost will be incurred by carriers for administration of the trial by the NPAC and PA. If the LLC or trial participants were to request modifications to the attached process, the affected NeuStar entities (NPAC and PA) would need to evaluate the modification(s) to see if the modification(s) would add any additional cost to their processes.

**Intra SP Block Transfer Process Flow  
For NPAC Software Release 3.0  
(Pooling and Non-Pooling Areas \*)  
(Attachment 1)**



\* See attached notes

**SP initiates intra SP block transfer request (port type of "pool") by filling out the 'Intra SP Block Transfer Request Part 1B' form (see attachment 2) found on <http://www.numberpool.org>, and submits request to the Pooling Administrator.**

1. PA checks the form to make sure it has been filled out completely. PA updates the BCD screen. In a pooling area, the PA checks to see if the block has been donated to the pool and then updates the Intra SP Block Transfer tracking database. Attachment 4 shows an Excel report from the database.
2. PA forwards the "Intra SP Block Transfer Part 3" form to the SP. See attachment 3 which shows the Part 3 form
3. PA forwards the completed form to the NPAC.
4. NPAC negotiates an effective date if necessary.
5. NPAC builds block table.
6. On effective date NPAC downloads designated block with a port type of pool.
7. NPAC completes the Part 1B form reflecting completion.
8. NPAC forwards the completed Part 1B form to the SP and PA.

**Note 1:** This process has been designed to work for both Pooling, and Non-Pooling "Intra SP Block Transfers" using a port type of "pool" in areas where LNP has been deployed in conjunction with NPAC software release 3.0 or greater.

**Note 2:** This process only pertains to Blocks that are "native" to the code holder's switch (i.e. blocks that are a part of a CO Code where the requesting SP is the LERG Assignee).

**Note 3:** To move (non-native) blocks that have been assigned to the requesting SP by the PA, existing processes should be followed, with notification of the change made to the PA and appropriate changes made in the Local Exchange Routing Guide (LERG).

Intra SP Block Transfer Request Form  
Part 1B

**Intra SP Block Transfer Request**  
(Submit one form per thousands-block request)

<b>Activation Request:</b> _____	
<b>Or</b>	
<b>Modification Request:</b> _____	<b>For Information Only:</b> _____

**Section A:**

(If request is for Activation or Modification, the Intra SP Block Transfer applicant is to provide all data including Block Range, Block Effective Date to the PA.)

Pooling Administrator

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Fax \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 E-Mail \_\_\_\_\_

Intra SP Block Transfer Applicant

Company Name \_\_\_\_\_  
 Contact Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, ZIP \_\_\_\_\_  
 Phone \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Fax \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_  
 E-Mail \_\_\_\_\_  
 Service Provider OCN<sup>1</sup> \_\_\_\_\_  
 Service Provider NPAC SOA SPID<sup>2</sup> \_\_\_\_\_  
 Existing LRN<sup>3</sup> \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Intra SP Block (1K) Range <sup>4</sup>	_____ - _____ - _____
Intra SP Block Transfer Effective Date (MMDDYYYY) <sup>5</sup>	_____
Transfer to LRN <sup>6</sup>	_____

NPAC Activate Intra SP Block Transfer Range<sup>7</sup> Yes \_\_\_ No \_\_\_

**Section B:**

(Intra SP Block Transfer Applicant to provide this data **ONLY** if NPAC Activate Block Range is marked 'YES')

Class DPC<sup>8</sup> \_\_\_\_\_  
 Class SSN<sup>9</sup> \_\_\_\_\_  
 LIDB DPC<sup>10</sup> \_\_\_\_\_  
 LIDB SSN<sup>11</sup> \_\_\_\_\_  
 CNAM DPC<sup>12</sup> \_\_\_\_\_

Tracking Number: \_\_\_\_\_

Attachment 2

Intra SP Block Transfer Request Form  
Part 1B

CNAM SSN <sup>13</sup>	_____
ISVM DPC <sup>14</sup>	_____
ISVM SSN <sup>15</sup>	_____
WSMSC DPC <sup>14</sup>	_____
WSMSC SSN <sup>15</sup>	_____



Intra SP Block Transfer Request Form  
Part 1B

**Section C:**

(NPAC is to Activate/Modify the Intra SP Block (1K) Transfer, as indicated on this form. When the Intra SP Block Transfer (1K) Activation/Modification is complete and the data in this section inserted, NPAC sends a copy of the completed form to the Pooling Administrator and the Block Holder.)

Intra SP Block (1K) Transfer Request Complete	Yes ___ No ___
Complete Date (MMDDYYYY)	__/__/____
Complete Time (HHMM)	__/____
NPAC Personnel performing change _____	

Block Holder sent Completed Form: Yes \_\_\_ No \_\_\_

Mailed Date (MMDDYYYY) \_\_/\_\_/\_\_\_\_

Mailed Time (HHMM) \_\_/\_\_\_\_

Contact Name \_\_\_\_\_

Pooling Administrator sent Completed Form: Yes \_\_\_ No \_\_\_

Mailed Date (MMDDYYYY) \_\_/\_\_/\_\_\_\_

Mailed Time (HHMM) \_\_/\_\_\_\_

Contact Name \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

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**Notes:**

- 1) The requesting Intra SP Block (1K) Transfer Applicant shall complete this form including Block Range and Block Effective Date, when submitting PART 1 of the Intra SP Block Transfer Applicant form to the Pooling Administrator. A separate Part 1B form is to be completed for each 1K Block Range requested.
- 2) If this NPA -NXX is subject to pooling, the Pooling Administrator will verify that the block is not part of the donated blocks in the indicated NPA -NXX. In both pooling and non-pooling areas, the PA will make a copy of the request, enter it into an Intra-SP Block Transfer database and submit this form to the regional NPAC, and at the same time an Intra-SP Block Transfer PART 3 form is returned to the requesting Block Applicant.
- 3) Pre- Block Activation:
  - a) If the Intra SP Block applicant is requesting a modification, the Intra SP Block applicant needs to complete Sections A and any applicable data in Section B of this form and send it to the Pooling Administrator (PA). The PA will review the form to insure correctness, enter the information into an Intra-SP Block Transfer database and forward it to the NPAC for processing.

Intra SP Block Transfer Request Form  
Part 1B

- 4) Post- Block Activation: If Intra SP Block applicant requests NPAC to perform the Block Modification, then Sections A & B of this form should be completed and sent to the Pooling Administrator. The Pooling Administrator will send the information on to the NPAC. Upon completion of this request, NPAC sends a copy of the completed form to the Pooling Administrator and Block Holder.

Intra SP Block Transfer Request Form  
Part 1B

Foot Notes:

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- <sup>1</sup> The Service Provider Operating Company Number that is used to administer this NPA-NXX.
- <sup>2</sup> The Service Provider ID of the Intra SP Block applicant. The SPID must be a valid SPID in the NPAC system. If your company does not have a SPID, please call the NPAC at 1-888-NPAC-HEL(P) for assistance.
- <sup>3</sup> The existing LRN assigned to the NPA-NXX. A Location Routing Number is a 10-digit number, in the format NPA-NXX-XXXX that uniquely identifies; a switch or point of interconnection (POI). The NPA-NXX portion of the LRN is used to route calls to numbers that have been ported.
- <sup>4</sup> The Intra SP Block applicant will insert Block information. The Block will consist of NPA-NXX and the first digit of the 1K block.
- <sup>5</sup> The Intra SP Block applicant will insert Block Effective Date. Intra-SP Block ports will follow the same requirements found in section 9.2.4 of the Thousands-Block (NXX-X) Number Pooling Administration Guidelines for specifics on effective date. This is the earliest date that the NPAC will broadcast the Intra SP Block information to all Local SMS's.
- <sup>6</sup> The Intra SP Block applicant will insert the LRN of the new switch that the 1K Block is transferring to. A Location Routing Number is a 10-digit number, in the format NPA-NXX-XXXX that uniquely identifies; a switch or point of interconnection (POI). The NPA-NXX portion of the LRN is used to route calls to numbers that have been ported.
- <sup>7</sup> If "YES" is marked the NPAC will activate the block range. If "NO" is marked it will be the responsibility of the SP to activate the block range.
- <sup>8</sup> Customer Local Area Signaling Services Destination Point Code for 10-digit GTT for CLASS features for the 1K block. The CLASS DPC must be three sets of numbers where the value for each set ranges from 0 to 255
- <sup>9</sup> Customer Local Area Signaling Services Subsystem Number for the 1K block. The CLASS SSN must be a number between 0 and 255.
- <sup>10</sup> Line Information Database Destination Point Code for 10-digit GTT for LIDB features for the 1K block. The LIDB DPC must be three sets of numbers where the value for each set ranges from 0 through 255.
- <sup>11</sup> Line information Database Subsystem Number for the 1K block. The LIDB DPC must be three sets of numbers where the value for each set ranges from 0 through 255.
- <sup>12</sup> Calling Name Delivery Destination Point Code for 10-digit GTT for CNAM features for the 1K block. The CNAM DPC must be three sets of numbers where the value for each set ranges from 0 through 255.
- <sup>13</sup> Calling Name Delivery Subsystem Number for the 1K block. The CNAM SSN must be a number between 0 and 255.
- <sup>14</sup> Inter-Switch Voice Mail Destination Point Code for 10-digit GTT for ISVM features for the 1K Block. The ISVM DPC must be three sets of numbers where the value for each set ranges from 0 through 255.
- <sup>15</sup> Inter-Switch Voice Mail Services Subsystem Number for the 1K block. The ISVM SSN must be a number between 0 and 255.
- <sup>14</sup> Wireless Short Message Service Center Destination Point Code for 10-digit GTT for WSMSC features. This field is only required if the service provider supports WSMSC data. The WSMSC must be three sets of numbers where the value for each set ranges from 0 through 255.
- <sup>15</sup> Wireless Short Message Service Center Subsystem Number for the 1K block. This field is only required if the service provider supports WSMSC data. The WSMSC must be a number between 0 and 255.

PA Intra SP Block Request Response Form  
Part 3

**Pooling Administrator's Intra SP Block Transfer Response/Confirmation**

Date of Application \_\_\_\_\_ Block Transfer Effective Date \_\_\_\_\_  
Date of Receipt \_\_\_\_\_ Date of Response \_\_\_\_\_  
Service Provider Name \_\_\_\_\_  
LERG OCN- \_\_\_\_\_  
NPAC SOA SPID \_\_\_\_\_

**Pooling Administrator Contact Information:**

Phone \_\_\_\_\_ Fax \_\_\_\_\_  
Signature of Pooling Administrator \_\_\_\_\_  
Name (print) \_\_\_\_\_  
E-mail \_\_\_\_\_

\_\_\_ **NPA-NXX-X \_\_\_\_\_ of Intra SP Block being transferred**

Transferred to LRN# \_\_\_\_\_  
Block Allocation Date \_\_\_\_\_  
Rate Center \_\_\_\_\_  
Rate Center Sub Zone \_\_\_\_\_

\_\_\_ **Form incomplete**

Additional information required in the following  
section(s): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_ **Form complete, Intra SP Block Transfer request denied**

Explanation:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

PA Intra SP Block Request Response Form  
Part 3

\_\_\_\_ **Further Action required:**

\_\_\_\_\_

- \_\_\_\_\_

- \_\_\_\_\_