

**Origination Date:** 5/22/1998

**Change Order Number:** NANC 217

**Description:** Complete Migration of One SPID to Another

**Cumulative SP Priority, Weighted Average:**

**Functional Backwards Compatible:** NO

**IMPACT/CHANGE ASSESSMENT**

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y			Medium	Med/High	Med/High

**January 2001:** After much discussion on this change order the LNPA WG decided that it would be best to have two change orders for updating of SPIDs. This change order would be used to cover the simple case where a SPID is being completely retired (merger or acquisition) and a new change order (NANC 323) created to cover the partial update of a SPID (parts of a company's assets are transferred to another company). The majority of the information in this change order has been moved into the new change order. The 'Business Need' and 'Description of Change' has been retained in its entirety so that the history of the requested change would not be lost, however, this change order **will not** address the partial migration of one SPID to another. The partial migration of one SPID to another is covered in NANC 323.

**Business Need:**

Currently the NPAC does not have the ability to broadcast a mass update on SPID. SPs are experiencing the need to change the SPID on ported telephone numbers. Examples that cause this situation for SPs are mergers, service area trading, data system consolidations, etc. In order to make a SPID change for given ported telephone numbers, the current NPAC operation requires each involved active-like ported telephone numbers to be deleted, and each involved pending subscription to be cancelled resulting in a large coordination effort among service providers. Coordination with all service providers utilizing the NPA/NXX is required to facilitate the SPID change. During the transition period, call routing will be affected and customer service is impacted. Once these actions have been taken and the new network data updated at NPAC, the active-like and pending ported telephone numbers information must be re-created. This procedure causes the customer to be out of service during the process and also increase the porting traffic over the interface.

This Change Order would allow the NPAC to perform this functionality without affecting the customer while reducing porting traffic over the interface.

**Description of Change:**

It has been requested that Mass Update functionality be enhanced to allow SPID to be changed for all network data and subordinate subscription data. The current NPAC functionality allows mass updates to LRN, GTT data, and optional data (e.g., billing ID) for all active subscriptions currently serviced by that specific Service Provider, by NPA-NXX.

Having this functionality would facilitate a situation where one Service Provider (SP1) purchases/merges with another Service Provider (SP2), and all LNP data needs to be consolidated into a single SPID (on the NPAC) or separated into multiple SPIDs.

Today, the NPAC requires all active subscriptions to be disconnected, and all pending subscriptions to be cancelled, by NPA-NXX for all NPA-NXXs owned by or ported away from SP2. Next, SP2 would delete all LRNs, and then delete all NPA-NXXs. SP1 would then have to add the NPA-NXXs and LRNs that were just deleted by SP2. Finally, the pending and activated SVs would need to be "re-created" under the presumption that SP1 is now the code holder for the NPA-NXXs.

The proposed solution with this change order is the NPAC would perform all of this processing "under the sheets", and not require SP1 and SP2 to perform all of these steps. The issue of notifications (whether to send or suppress) is NOT addressed at this point in time.

After further analysis it was determined that the current NPAC implementation includes 23 tables that contain a customer SPID. Each will have to be addressed (at a business level) to determine correct NPAC processing should the SPID be modified.

The other issues to determine include:

1. length of time to complete this update.
2. which notifications need to be sent out over the SOA interface, since we are modifying numerous objects.
3. what do we do with current Network and Subscription records (update them with new SPID; or create new ones for the new SPID, and move the previous ones to OLD).

After much discussion on the 7/8/98 telecon, it was decided that the scope of this change order is huge, and it's frequency of use is undetermined at this point in time (speculation is relatively small).

Additionally, AT&T requested that all SPs look at the possibility of performing some type of database migration/conversion instead of having the NPAC perform all of the updates, then have to broadcast to all SPs. The database migration/conversion could potentially be accomplished by using a new NPAC "bulk download file" to update the local database.

The current position for this change order is to have a brief discussion at the Wed, 7/15 meeting in Chicago. The group will seek volunteers for a sub-committee to further analyze this change order in the context of how to accomplish a "merger" using today's functionality, and investigate potential solutions using a "bulk download file" approach, and a full NPAC solution with notifications across the interface. Participants include, AT&T (Beth), Bellcore (John), ESI (Jim), GTE (Gene), MCI (Gustavo), PacBell (Jackie), and Sprint (Dave).

The subcommittee will also talk about the potential of a "partial cut" from one SPID to another (possibly do on a market by market basis, or NPA by NPA basis). During the

11/23/98 telecon, it was determined that Beth's proposed short term solution would not be easy to accomplish. Details on the telecon will be available at the Dec LNPAWG meeting.

Dec LNPAWG (Atlanta), Mass update is the long term solution, but wanted to have short term solution. In the case of MCI and Brooks, they deleted the SVs, deleted the network data, then put it back out there under the new SPID.

What we looked at for an NPAC manual update, then produce BDD, would require code changes. Plus, BDD would be all records instead of just changed ones. Also, SVs would be modified instead of activated, so the current BDD by time range would NOT pick these up.

Current solution is customer impacting. Two long term options are the actual mass update of this change order, or having the NPAC internally update the SPID, then create appropriate BDD files that capture the changes within the time range.

Jan 00 LNPAWG meeting, the current processing approach is to have the NPAC perform this processing on the NPAC database, then when complete, create separate Bulk Data Download files for the different areas of data (i.e., NPA-NXX, LRN, NPA-NXX-X, Block, SV) that could then be used by each SOA/LSMS to update their local database. However, since this would require Service Providers to wait until the NPAC completed this processing, before they could update their own database, the new approach is for the NPAC to create Selection Input Criteria SPID Mass Update Request Files (SIC-SMURF) that could be used by the NPAC and all Service Providers as the input for everyone to update their own database. It was agreed that we no longer needed the results files.

**December 2000:** Additional information was added to both the Business Need and Description of Change by Sprint to cover the situation of a single SPID being split into multiple SPIDs.

## **Requirements:**

### **Req 1 SPID Update**

NPAC SMS shall provide a mechanism to allow the complete update of one SPID to another [existing, valid SPID](#) in the NPAC database.

### **Req 2 NPAC SMS Processing of SPID Update**

NPAC SMS shall process the SPID Update as an offline/maintenance mode activity.

### **Req 3 SPID Update – Suppression of Notifications**

NPAC SMS shall suppress notifications to all Service Providers via the SOA to NPAC SMS Interface and NPAC SMS to LSMS Interface, when performing the SPID update process.

**Req 4 SPID Update – Creation of Number Pool Block for Old Service Provider**

NPAC SMS shall create an [old](#) Number Pool Block with a new version id for the old Service Provider for a Number Pool Block that contains a status of active, partial failure, disconnect pending, or old with a FailedSP-List, prior to the SPID update process.

**Req 5 SPID Update – Creation of Number Pool Block for Old Service Provider – No Broadcast**

NPAC SMS shall broadcast no data to the SOAs and LSMSs due to the creation of an old Number Pool Block with a new version id for the old Service Provider for a Number Pool Block that contains a status of active, partial failure, disconnect pending, or old with a FailedSP-List, prior to the SPID update process.

**Req 6 SPID Update – Creation of Subscription Version for Old Service Provider**

NPAC SMS shall create an old subscription version with a new version id for the old Service Provider for a subscription version that contains a status of active, partial failure, disconnect pending, or old with a FailedSP-List, prior to the SPID update process.

**Req 7 SPID Update – Creation of Subscription Version for Old Service Provider – No Broadcast**

NPAC SMS shall broadcast no data to the SOAs and LSMSs due to the creation of an old subscription version with a new version id for the old Service Provider for a subscription version that contains a status of active, partial failure, disconnect pending, or old with a FailedSP-List, prior to the SPID Update process.

**Req 8 SPID Update – Exclusion of Data During Recovery**

NPAC SMS shall exclude data in a recovery request for activity related to the SPID update.

**Req 9 Update SPID on ‘pending-like’ Subscription Versions – Creation of Subscription Version for Old Service Provider**

NPAC SMS shall create an [old](#) subscription version with a new version id for the old Service Provider for a subscription version that contains a ‘pending-like’ status prior to the update of the subscription version with the new SPID.

**Notes:**

‘Pending-like’ Blocks or Subscription Versions are defined to be Blocks or Subscription Versions that contain a status of pending, conflict, cancel-pending, or failed.

**Req 10 Update SPID on ‘pending-like’ Subscription Versions – Creation of Subscription Version for Old Service Provider – No Broadcast**

NPAC SMS shall broadcast no data to the SOAs due to the creation of a subscription version with a new version id for the old Service Provider for a subscription version that contains a ‘pending-like’ status prior to the update of the subscription version with the new SPID.

**Req 11 Update SPID on Messages Queued for Recovery**

NPAC SMS shall apply the SPID update to any messages that are in the queue for recovery.

**Note to Service Providers:**

During review we need to address

- process for SP notifying NPAC of SPID migration
- process for NPAC notifying all SP in the effected regions of the SPID migration.

**IIS**

No change required

**GDMO:**

No change required.

**ASN.1:**

No change required.

**M&P:**

TBD (Need to address the SPID migration being done as an offline/maintenance mode activity, how SPs notify NPAC of migration, how NPAC notifies all SPs in the effected regions of the migration)

**Notes:**

SPs need to look internally, if there might be a billing issue on the local side.  
The NPAC billing information will not be changed for days prior to mass update of SPID.