
Proposed Release Package for NPAC Release 4.0

Table of selected Change Orders for NPAC SMS Release 4.0 (summer of 2001) sorted in order of cumulative SP priority (i.e., weighted average). The weighted average is based on the summary of a priority vote by each SP at the Oct LNPAWG meeting, then divided by the number of voting SPs. 1.00 is the highest possible priority and 22.00 is the lowest possible priority.

Change Order #	Description	NPAC Effort	SOA/LSMS	Weighted Avg
NANC 227 & NANC 254	Failed TN Problems	Med	N/A / Med-Low	4.83
NANC 219	NPAC Monitoring of Associations	Low	N/A / N/A	5.33
NANC 240	No SV Cancel on T2 Expiration	Low	Low / N/A	5.33
NANC 191 & NANC 291	DPC/SSN Value Edit	Low	N/A / N/A	5.42
NANC 297	Sending SVs in Recovery	Med/Low	N/A / N/A	7.50
NANC 192	NPA Split Load File	Medium	N/A / N/A	8.08
NANC 301	NPAC Monitoring of SOA/LSMS Associations via NPAC TCP Level Heartbeat (transport layer)	Low	Low/Low	NR
NANC 230	Donor SOA PTO	Medium	Med / N/A	9.83
NANC 249	Modification Disconnect Pending Date	Low	Med / N/A	10.33
NANC 294	Due Date Edit (7 PM)	Medium	Med / N/A	10.50
NANC 200	NPA Split Notifications	Med/Low	Med/Med	10.75
ILL 130	Application Level Errors	High	High/High	10.83
NANC 217	Mass Update SPID	Medium	Med-High/Med-High	12.50
NANC 187	Recovery Linked Replies	Medium	Med/Med	12.58
NANC 285	SOA/LSMS Query Size	Low	Med-High / Med-High	12.92
NANC 179	TN Range Notification	Medium	Med-High / N/A	14.42
NANC 232	First Port Notification on Web BB	Low	N/A / N/A	14.92
NANC 287	ASN1. Notification Recovery	Low!	Low/Low	18.75
NANC 218	Conflict Timestamp Broadcast SOA	Low	Low / N/A	18.83
NANC 138	Definition of Cause Code	Low	N/A / N/A	NR

Origination Date: 8/7/1998

Change Order Number: NANC 227/254

Description: Exclusion of Service Provider from an SV's Failed SP List

Cumulative SP Priority, Weighted Average: 4.83

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y		Y		Med	N/A	Medium Low

Business Need:

Currently, the NPAC will not permit information about an active ported number to be changed until all SPs have acknowledged receipt of the original information broadcast by NPAC about the number.

Consequently, an error such as wrong LRN cannot be fixed until the original, incorrect, information is broadcast successfully to all SPs. In this example, the customer could receive no incoming calls for hours or even days after cut-over.

Likewise, a subsequent port by a currently ported customer would be prevented by lack of successful broadcast of the original ported number information to all SPs.

With this change order, SPs can make changes quickly to minimize impact on newly ported customer's service and can do ports as scheduled when partial broadcast failure situations occur. Without this change order, only a complex and error prone manual method employed by NPAC personnel is available to circumvent this NPAC software restriction.

Origination Date: 6/5/1998

Change Order Number: NANC 219

Description: NPAC Monitoring of SOA/LSMS Associations

Cumulative SP Priority, Weighted Average: 5.33

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y				Low	N/A	N/A

Business Need:

Currently SP associations can be down without SP awareness. This change order is requesting the ability for the NPAC to quickly recognize aborted associations and issue alarms. This enhancement will reduce the length of time a SP's association is down. This will decrease the number of partial failures and reduces the impacts of ported customers service due to incomplete/incorrect routing data in SP's network.

Origination Date: 10/15/1998

Change Order Number: NANC 240

Description: No cancellation of SVs based on expiration of T2 timer

Cumulative SP Priority, Weighted Average: 5.33

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y	Y	Low	Low	N/A

Business Need:

Currently the NPAC cancels an SV as a result of the new SP failing to send up a matching create within 18 hours. Additional work effort and operational concerns are created when this occurs, including the new SP re-contacting the old SP, and having to re-do the LSR/FOC paper work. In addition to excessive contact between both SPs, the extra work created can delay the actual port and increase the likelihood of disconnects in error. This change order will eliminate the cancellation of the SV and reduce the level of effort and operational issues.

Origination Date: 1/19/1998

Change Order Number: NANC 191

Description: DPC/SSN value edits

Cumulative SP Priority, Weighted Average: 5.42

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y		Y		Low	N/A	N/A

Business Need:

The current environment allows the new SP to send up final Global Title Translation data. This final GTT data is broadcasted by NPAC to all applicable subtending SPs in the Region. This has resulted in service-affecting TCAP routing errors for subtending SPs who do not have route sets built based on final GTT to the new SP, causing trouble-shooting expense and re-broadcast of the data to modify the DPCs to non-final GTT. This issue is addressed by NANC 291.

In addition, invalid GTT data (e.g. a DPC with no SSN, a DPC with Network ID set to 000, etc.) contained within the new SP CREATE has also resulted in TCAP routing errors when broadcasted to subtending SPs. This issue is addressed by NANC 191.

These two Change Orders will ensure that GTT data is formatted consistent with SS7 signaling standards and contains only non-final DPCs in accordance with recommendations documented in T1S1.6 standards for Local Number Portability. This will mitigate the trouble-shooting and NPAC broadcast expense due to incorrect or invalid GTT data.

Origination Date: 7/7/1999

Change Order Number: NANC 291

Description: SSN Edits in the NPAC SMS

Cumulative SP Priority, Weighted Average: 5.42

Pure Backwards Compatible: YES (however, operational impacts to SPs)

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y		Y		Low	N/A	N/A

Business Need:

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Origination Date: 9/15/1999

Change Order Number: NANC 297

Description: Sending SV Problem During Recovery

Cumulative SP Priority, Weighted Average: 7.50

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y		Y		Med/Low	N/A	N/A

Business Need:

The current NPAC SMS implementation for LSMS recovery does not support the recovery of SVs with a status of sending. Therefore, at the completion of SV recovery processing, an SP is not guaranteed to have recovered all missed/failed SVs and has to request the NPAC Personnel to resend all missed/failed SVs. This change order will result in an LSMS recovering all missed/failed SVs, an operational cost savings, and database integrity between the NPAC SMS and LSMS.

Origination Date: 1/23/1998

Change Order Number: NANC 192

Description: NPA Split NPAC SMS Load File

Cumulative SP Priority, Weighted Average: 8.08

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y			Medium	N/A	N/A

Business Need:

Current NPA Split processing requires each SP to notify the NPAC of NPA-NXXs involved in an NPA Split. This process is new to SPs and is causing confusion, missed NPA Split processing, extra data clean up work for the SPs, and possible customer affecting outages.

This Change Order would eliminate the current NPAC process of SP notification, prevent manual data entry, and establish the means for NPAC to use the industry standard data from the LERG to make sure the NPA Split processing is consistent within the industry.

Origination Date: 1/12/2000

Change Order Number: NANC 301

Description: NPAC Monitoring of SOA and LSMS Associations via NPAC TCP Level Heartbeat (transport layer)

Cumulative SP Priority, Weighted Average: NR

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y			TBD	TBD	TBD

Business Need:

In today's operating environment, the NPAC doesn't know if an SP's SOA/LSMS association is available to receive downloads and other messages unless there is a failure to respond to an NPAC message. There are a number of reasons that may cause the SOA/LSMS association to be unavailable ranging from the transmission facility going down to software application problems.

If an association is unavailable when a download to activate a ported number is sent, partial failures will occur. Partial failures indicate that one or more SPs did not update their routing tables, and many calls intended for the ported customer will fail.

There are often long periods of time when there are no messages being sent across a given NPAC – SOA/LSMS association. Therefore, there is no way to know if the association is working. This change order would establish a periodic "heart-beat" monitor to determine the status of the SOA/LSMS.

This change order will facilitate monitoring SOA/LSMS availability and will minimize partial failure situations, thereby saving resolution time and improving customer service.

Origination Date: 8/12/1998

Change Order Number: NANC 230

Description: Allow a Donor SOA to Create a Port-to-Original on an intra-service provider port

Cumulative SP Priority, Weighted Average: 9.83

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y		Medium	Medium	N/A

Business Need:

The current implementation does not allow an SP to revert an intra-ported TN from routing based on LRN to routing based on dialed digits (non-LRN) without disconnecting the TN. The disconnecting of the TN creates operational problems because the systems think that the TN is deleted/disconnected yet the customer is still in service. This change order will enable SPs to perform a "port to original" of an intra-ported TN. This will increase operational effectiveness and uninterrupted customer service.

Origination Date: 12/9/1998

Change Order Number: NANC 249

Description: Modification of Dates for a Disconnect Pending SV

Cumulative SP Priority, Weighted Average: 10.33

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y		Low	Medium	N/A

Business Need:

The current situation requires an SP to cancel the existing order and create a new order to change a pending disconnect date. This change order would allow modification of the customer disconnect date resulting in labor savings in the work center.

Origination Date: 8/1/1999

Change Order Number: NANC 294

Description: Changing Due Date Edit Functionality in the NPAC SMS for 7p on Due Date Problems

Cumulative SP Priority, Weighted Average: 10.50

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y		Medium	Medium	Medium

Business Need:

Currently the NPAC SMS operates on GMT (Greenwich Mean Time) and operating business hours (e.g., timers, due dates, etc.) are 7AM – 7 PM. When emergency porting conditions are encountered, the NPAC operating system prohibits the SP from initiating same day porting events due to the difference between GMT and SP time zones creating a variance in the date. There is a manual process requiring conversion of local time to GMT to ensure the dates on the SVs match. This change order would eliminate the manual process for these situations to ensure customers are not out of service any longer than necessary and omissions to large customer porting conversions are quickly resolved.

Origination Date: 2/28/1998

Change Order Number: NANC 200

Description: Notification of NPA Splits

Cumulative SP Priority, Weighted Average: 10.75

Pure Backwards Compatible: NO

Functional Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y	Y	Medium Low	Medium	Medium

Business Need:

Currently not all SPs are aware of NPA Splits and are not performing their database updates, thus causing database errors and industry confusion. In order to ensure that customer service is not negatively affected during an NPA Split, it is essential that the NPAC and all SPs databases be synchronized.

This change order will provide notifications via the NPAC interface to all SPs regarding NPA – NXX Split information.

Origination Date: 1/6/1997

Change Order Number: ILL 130

Description: Application Level Errors

Cumulative SP Priority, Weighted Average: 10.83

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y	Y	High	High	High

Business Need:

The current interface has very limited error message detail. This change order will allow understanding of errors more rapidly by returning a text explanation of the error. This will reduce the amount of time it takes work centers to manually research errors and resolve troubles.

Origination Date: 5/22/1998

Change Order Number: NANC 217

Description: Mass Update of SPID

Cumulative SP Priority, Weighted Average: 12.50

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

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 SPID change for given ported telephone numbers, the current NPAC operation requires each involved active ported telephone numbers to be deleted, and each involved pending telephone numbers to be cancelled. During the transition period, call routing can be affected and customer service is impacted. Once these actions have been taken and the NPAC network data updated, the active and pending ported telephone numbers information must be re-created. This functionality causes the customer to be out of service during this 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.

Origination Date: 1/7/1998

Change Order Number: NANC 187

Description: Linked Action Replies

Cumulative SP Priority, Weighted Average: 12.58

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	Y		Medium	Medium	Medium

Business Need:

Current recovery functionality provides recovery data to be sent in a single message for subscription, network, and notification data. Due to large porting volumes, the size of these messages has increased and will soon exceed maximum message size for the SOA/LSMS interfaces causing recovery of missed or lost data to become impossible for these interfaces. This change order will provide recovery data to the SP in smaller multiple linked messages.

Origination Date: 5/12/1998

Change Order Number: NANC 285

Description: SOA/LSMS Requested Subscription Version Query Max Size

Cumulative SP Priority, Weighted Average: 12.92

Pure Backwards Compatible: YES (but may require local operational changes)

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently the NPAC responds with an error message of Criteria Too Large for queries with a response greater than 150 SVs.

This change order will prevent the NPAC from sending the Criteria Too Large error message if it reaches the maximum tunable value (150 SVs) for SVs queries. The NPAC will return 150 SVs at a time with the ability to query subsequent data until all SVs are returned.

Origination Date: 11/25/1997

Change Order Number: NANC 179

Description: TN Range Notifications

Cumulative SP Priority, Weighted Average: 14.42

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently SOA systems receive notifications on a TN by TN basis. This change order will allow them to receive a single notification from the NPAC for a TN range instead of individual notifications for each TN. This will reduce the number of messages received and time required by SPs to compare outputs to their internal service order processing systems.

Origination Date: 8/14/1998

Change Order Number: NANC 232

Description: Web Site for first port notifications

Cumulative SP Priority, Weighted Average: 14.92

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y				Low	N/A	N/A

Business Need:

Currently first port notification information is a single event broadcast. SPs would like to see historical documentation of first ports available outside of SOA/LSMS/LTI interfaces. This change order would place "first port" notifications on the web, similar to the NPA-NXX openings that are on the web today.

Origination Date: 5/27/1999

Change Order Number: NANC 287

Description: ASN.1 Change for required field in VersionNewNPA-NXX and VersionNewNPA-NXX-Recovery notification

Cumulative SP Priority, Weighted Average: 18.75

Pure Backwards Compatible: NO

Functional Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
			Y	Low	Low	Low

Business Need:

Currently, there is an ASN.1 definition error that requires a change order due to the fact that a recompile action is necessary for all SOAs and LSMSs. This will change a field that is defined as optional to required.

Origination Date: 6/5/1998

Change Order Number: NANC 218

Description: Conflict Timestamp Broadcast to SOA

Cumulative SP Priority, Weighted Average: 18.83

Pure Backwards Compatible: NO

Functional Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
	Y	Y		Low	Low	N/A

Business Need:

Currently the SP does not know exactly when a telephone number was placed into conflict with out querying the NPAC database. SPs need to take action to resolve the conflict in order to complete the port.

This change order will provide a timestamp on the NPAC broadcast to the SPs SOA. This will minimize traffic to the NPAC and ensure the SP can take timely action.

Origination Date: 8/11/1997

Change Order Number: NANC 138

Description: Definition of Cause Code

Cumulative SP Priority, Weighted Average: NR (Not Rated), but added because it was a small helpful change even though not rated. Agreed to be added by group. Initially graded as low priority, but should have been on medium priority list because of small effort.

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y			Low	Low	Low

Business Need:

Currently the “NPAC SMS Automatic Conflict from Cancellation”, notification does not have a distinct Cause Code.

This Change Order will provide a notification with a Cause Code enabling the SP to take the proper action to minimize service interruption for the customer being ported.