

Release 5.0 Change Orders

Updated On: 6/5/00

Change Order Prioritization List with June 2000 LNPA-WG meeting Weighted Averages

Table of Change Orders for NPAC SMS Release 5.0 (winter of 2001/2002) 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 June 00 LNPAWG meeting, then divided by the number of voting SPs. 1.00 is the highest possible priority and 14.00 is the lowest possible priority.

Change Order #	Description	NPAC Effort	SOA/LSMS	Weighted Avg
ILL 5	Round-Robin Broadcasts across LSMS Associations	Low	N/A / High	
ILL 23	Detailed Integrity Sample Results Report	Low (assuming audit)	N/A / N/A	
NANC 87	RR5-39 Requirement Modification for Viewing of Cancelled SV	Low	Low / Low	
NANC 103	Increase in OSI Selector Size	Med	Low / Low	
NANC 122	Enhanced Key Expiration Strategy	Med	Med / Med	
NANC 147	Version ID Rollover Strategy	High	High / High	
NANC 151	TN Addition to Attribute Value Change Notification	Low	Low / N/A	
NANC 169	Delta Download File Creation by Time Range for SVs	Med	N/A / Med-Low	
NANC 193	TN Processing during NPAC SMS NPA Split Processing	High +	N/A / N/A	
NANC 246	NPA-NXX Filters for Bulk Data Download Files for SVs	Low	N/A / N/A	
NANC 299	NPAC Monitoring of SOA and LSMS Associations via Heartbeat	Med	Med/High / Med/High	
NANC 300	Resend Exclusion for Number Pooling	Med	Med/Low / Med/Low	
NANC 307	Change BDD Format for NPA-NXX and NPA-NXX-X Files	Med	Med / Med	
NANC 310	Time Reference in the NPAC SMS	High	High / High	
NANC 311	Web Presentation of SP Association Status	?	N/A / N/A	

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Clarifications

Note: Change Orders that have been clarifications to previously documented Release 5 change orders have been merged in this document as indicated in the table below and will not be referenced separately as Release 5 change orders.

Change Order Retained	Change Order Merged and Removed

Rejections

Change Orders rejected for Release 5.0.

Change Order Number	Change Order Description

Origination Date: 10/15/96

Change Order Number: ILL 5

Description: Round-Robin Broadcasts across LSMS associations

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently, most SOAs/LSMSs have one association to the NPAC SMS over which all interface traffic is sent and received. As performance increases over the interface, a SOA/LSMS may need to distribute their interface processing across multiple machines to gain addition memory, processor speed and stack resources. This change order would enable an SOA/LSMS to distribute their interface processing across multiple machines. This change order would also enable the NPAC SMS to accept multiple associations of the same function type from different NSAPs and distribute outbound traffic in a round robin algorithm across the multiple associations.

Description of Change:

The NPAC SMS would support additional LSMS associations and manage the distribution of transactions in a round robin algorithm across the associations. For example, due to performance conditions a Service Provider may want to start another LSMS association for network/subscription downloads. The NPAC SMS would accept the association, manage security, and distribute network/subscription PDUs across the 2 or more associations using the round robin algorithm (One unique PDU will be sent over one association only.)

Origination Date: 10/15/96

Change Order Number: ILL 23

Description: Detailed Integrity Sample Results Report

Cumulative SP Priority, Weighted Average:

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y				Low (assuming this is converted to an audit)	N/A	N/A

Business Need:

Each week, the NPAC conducts a non-corrective audit of 1,000 randomly selected ported telephone numbers at each service provider's LSMS. (It is not possible for the NPAC to directly audit the SPs' network routing data.). The raw data is provided in the NPAC monthly reports provided to the LLC, showing the number of inquiries made and the number of errors found. The results are not summarized by service provider, however, and only a regional-wide error level is known.

The business need for a more detailed network integrity report, showing the errors found at each tested LSMS, is that carriers' relative performance in the area of accurate ported number databases may vary significantly. The region-wide report demonstrates a general statement of the LNP database condition overall. But a service provider-specific report over time could demonstrate whether a substantial difference did in fact exist from one carrier to the next (or from one LSMS vendor to the next). The provider-specific report could be used by a carrier to work with its LSMS vendor on the problem as well as by the LLC and NPAC to see where improvement is needed. Each carrier could receive only its own results plus the overall regional results; the LLC would receive both the overall regional results and each individual service provider's results. This report supports the long term "Slow Horse" effort.

Description of Change:

A request was made for an additional NPAC SMS report for detailed integrity sample results. This report would list all of the discrepancies found for a given Data Integrity Sampling by service provider.

The data integrity report is used to determine the percentage of synchronization between the NPAC SMS and Local SMS. The report is run at a tunable frequency (default 1 week) for a random sample of a tunable number of TNs (default of 1000).

There is also an issue being discussed on whether the discrepancies found should be fixed.

There was a request that the M&P support be discussed.

Origination Date: 4/30/97

Change Order Number: NANC 87

Description: RR5-39 Requirement Modification for Viewing of Cancelled SV

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

The LNPA Working Group assumes that only the Old Service Provider (OSP) and New Service Provider (NSP) are able to view pending ports. All Service Providers are able to view OLD or ACTIVE Subscriptions Versions (SVs). Currently, the interface allows for all Service Providers to view cancelled SVs. Recently, the concept of “pending-like” and “active-like” SVs (based on status) has been incorporated into the FRS. To ensure that pending port information (which includes cancelled) is not available to all Service Providers and to be consistent with the recent terminology, it is recommended that “pending-like” SVs be viewable only by the OSP and NSP.

Description of Change:

The inclusion of the cancelled state in RR5-39 we believe is in error. We believe that the only valid states that a non-old or non-new SP should be able to view are old or active. No previously pending (never to be activated) version should be viewable.

Origination Date: 5/23/97

Change Order Number: NANC 103

Description: Increase in OSI Selector Size

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently, the NPAC SMS limits the length of each OSI selector value to 4 characters for all SOA/LSMS applications even though its stack supports presentation selector values with maximum length of 16 characters, session selector values with maximum length of 16 characters and transport selector values with a maximum length of 32 characters. This change order requests that the NPAC SMS limit the maximum selector value lengths to the value supported by their stack. This will provide SOA/LSMS vendors with some flexibility in determining the selector values that uniquely identify their interface processes.

Description of Change:

Currently in the IIS and FRS the OSI TSAP, SSAP, and PSAP sizes are limited to 4 characters. It has been requested that these be increased in size. The selector would be defined as a range from 4...16 or 20.

Origination Date: 7/17/97

Change Order Number: NANC 122

Description: Enhanced Key Expiration Strategy

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

The industry interface supports a digital signature attribute in the access control of all messages over the interface for security reasons. However, the interface documentation does not clearly define when keys used in creating the digital signature on outgoing messages should be expired. This change order identifies two situations when the NPAC SMS should expire its current key and three situations when a SOA/LSMS should expire its current key. This change order provides additional security over the industry interface.

Description of Change:

It has been requested that the key exchange strategy be revised for a more secure implementation. The strategy would be as follows:

NPAC would expire its key when:

- an abort from a service provider occurs on an active association.
- a key change is desired.

Service Providers would expire their key when:

- an abort from the NPAC occurs on an active association.
- an accessDenied error message is returned.
- a key change is desired.

The group is unsure of the need to change the key exchange strategy at this time.

Origination Date: 8/27/97

Change Order Number: NANC 147

Description: Version ID Rollover Strategy

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently, the NPAC SMS uses a 32-bit signed integer for the Naming ID Value (sv id, block id, npanxx id, npanxxx id, lrn id) which has a maximum value of $([2^{**}31] - 1)$ or 2.14B. All SOAs and LSMSs are expected to support Naming ID Values up to this maximum. At this point in time, the NPAC SMS does not have a rollover strategy in place when the Naming ID maximum value is reached. With this change order, porting activity between the NPAC SMS and SOAs/LSMSs will continue as usual when the Naming ID maximum value is reached.

Description of Change:

Currently there is no strategy defined for rollover if the maximum value for any of the id fields (sv id, lrn id, or npa-nxx id) is reached.

Sep 99 LNPA-WG (Chicago), since the version ID for all data is driven by the NPAC SMS, the rollover strategy should be developed by Lockheed. SPs/vendors can provide input, but from a high level, the requirement is to continue incrementing the version ID until the maximum $([2^{**}31] - 1)$ is achieved, then start over at 1, and use all available numbers at that point in time when a new version ID needs to be assigned (e.g., new SV-ID for a TN).

A strategy on how we look for conflicts for new version ids must be developed as well as a method to provide warnings when conflicts are found.

Origination Date: 9/4/97

Change Order Number: NANC 151

Description: TN Addition to Attribute Value Change Notification

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

This change order saves research time for SOA operational staff when they receive a notification for a subscription version that has inadvertently been removed from their local database or was never received. Currently, only the NPAC subscription version id is included in the notification message. If the SOA missed the subscription version create message (“object creation”, which includes both TN and SV-ID), any subsequent notification that the NPAC sends cannot be associated with the TN, since those subsequent notifications currently do not include the TN.

Description of Change:

It has been requested that the TN for the subscription version be added to the attribute value change notifications from the NPAC SMS. It is possible for a SOA in a disconnect or modify-active situation, to not have the SV record in their database. Therefore, when the attribute/status change notification comes from the NPAC SMS, there is no way to correlate its version id with the TN on the disconnect or modify request in SOA.

This would be a deviation from the standard since the TN would not have been an attribute that was changed.

Origination Date: 5/23/97

Change Order Number: NANC 169

Description: Delta Download File Creation by Time Range for SVs

Cumulative SP Priority, Weighted Average:

Pure Backwards Compatible: YES (may have operational impacts, since this is optional functionality, and not over the NPAC to LSMS interface. Also, may have an LSMS impact if the LSMS is currently designed to only accept a download reason of “new1”.)

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently the NPAC does not have the ability to create a delta bulk data download file by date and time range. This change order is expected to help with an SP’s capability to ‘catch-up’ faster after an extended outage, as porting volume increases. The ability to create a delta bulk data download file by date and time range (downloading only the actual data required) reduces the work effort of the SP while getting the SP back in-sync with the NPAC in a more timely manner which in turn facilitates proper call routing.

Description of Change:

It has been requested that requirements be added to the FRS to allow for creation of a delta download file by date and time range, for SVs.

Need to change functionality when requesting SV BDD with a time range. Currently, the NPAC provides all “active” SVs based on Activation Broadcast ~~Complete~~-Timestamp. This creates an issue for modification, or mass updates that are within the specified time range window, but the Activation was prior to the specified time range. There is also an issue for Activation Failures.

Additional proposed changes to handle two issues, include:

1. Incorporate the start and end time ranges into the file name.
2. Need to capture all SV activity (activation, modification, disconnect) into the file, when doing time range.

The start and end timestamps are NOT embedded in the filename. Update documentation to state Activation Broadcast ~~Complete~~-Timestamp is used for comparison. The proposal is to use the Broadcast Timestamp attribute in the SV, to determine whether or not an SV fits in the specified time range.

Origination Date: 1/23/98

Change Order Number: NANC 193

Description: TN Processing during NPAC SMS NPA Split Processing

Cumulative SP Priority, Weighted Average:

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently the NPAC SMS performs NPA Split processing at the start of the Permissive Dial Period (PDP), based on data input on the NPAC OpGUI. This processing only affects data at the NPAC since nothing is broadcast to Service Providers as a result of Split processing. The general understanding of all parties is that NPAC behavior would not change until the start of PDP (i.e., sending out the new NPA-NXX for requests using the old NPA-NXX).

However, since NPA Split processing could take several minutes to accomplish (in almost all instances thousands of SVs need to be updated), what is the expected NPAC behavior for Service Provider requests that are sent during this Split processing window of time (i.e., before the start of PDP)? Some of the NPAC responses may be processed and returned prior to the start of PDP, while others may be processed and returned shortly after the start of PDP (e.g., several seconds or a minute later). The same issue applies at the end of PDP.

With this change order, the behavior of the NPAC would be clearly defined for requests that are sent/received/processed/returned during the Split processing window immediately before/during/after the start of PDP and the end of PDP.

Description of Change:

There was group consensus that NPAC behavior would not change until the start of permissive dialing. An example would be an audit that occurred during split processing one-minute before the start of permissive dialing. The NPAC should act as if permissive dialing has not yet started for the audit initiated during split processing. The Split processing should have no effect on operations of the system.

A clarification requirement should be added as follows:

NPAC SMS shall processes requests during split processing prior to the start of permissive dialing as if the split processing has not yet occurred.

Additional clarification requirement:

NPAC SMS shall in a download request made after permissive dialing start for subscription version data sent prior to permissive dialing start, return the new NPA-NXX for subscription versions involved in an NPA Split.

The following questions need to be answered by vendors:

- What will the SOA do if it sends an old NPA-NXX prior to PDP and the NPAC returns the new SV with the new NPA-NXX? What would happen for a create/audit/query?
- What will LSMS systems do if an audit is sent for new NPA prior to PDP?
- Are there LSMS that will not be able to handle audits on new NPA-NXX right at the start of PDP?
- How long does it take for NPAC/SOA/LSMS to split an NPA-NXX?
- What is the NPAC behavior for recovery spanning time before & after PDP?
- If NPAC splits starting at midnight and SOA sends new NPA-NXX for an NPA-NXX not in split what would happen?

After reviewing the above questions. It was determined that the NPAC should act as if the split had not occurred during split processing prior to permissive dialing.

A matrix of answers received above has been created.

It was discussed that this requirement would have to be implemented by SOA, LSMS, and NPAC vendors. This requirement would shorten the window when errors could occur for the change of an NPA. It was requested that we review and document on behavior in the following situations: When the NPAC receives a request sent before the split after the split start, how should it respond? Also when an SOA or LSMS receives a request sent before the split after the split start, how should it respond?

IIS flows for error scenarios will be created. If an activate using the new NPA-NXX is received by the NPAC SMS before PDP it will be rejected. If an SV using the old NPA-NXX is received after the end of PDP it will be treated as the old NPA-NXX if that NPA- NXX is still a valid portable NPA-NXX in the NPAC SMS, otherwise it will be rejected. Download requests after the start of PDP for information occurring before PDP should reflect the new NPA- NXX for subscription versions involved in a Port.

Origination Date: 11/19/98

Change Order Number: NANC 246

Description: NPA-NXX Filters for Bulk Data Download Files for SVs

Cumulative SP Priority, Weighted Average:

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently the NPAC does not have the ability to create a delta bulk data download file using NPA-NXX filters. This change order is expected to help with an SP’s capability to ‘catch-up’ faster after an extended outage, as porting volume increases. The ability to create a delta bulk data download file using filters (downloading only the actual data accepted by that LSMS) reduces the work effort of the SP while getting the SP back in-sync with the NPAC in a more timely manner, which in turn facilitates proper call routing.

Description of Change:

When the NPAC generates Bulk Data Download (BDD) files of SV data, NPA-NXX filters for a Service Provider are NOT incorporated in the BDD file generation process.

It has been requested that the NPAC be changed to incorporate the filters when generating the SV BDD files.

This change order is a subset of NANC 169 (same as requirement 11 in 169), which is shown below.

Req 11 Subscription Version Information Bulk Data Download – Filters for Subscription Versions

NPAC SMS shall apply NPA-NXX Filters to Subscription Versions in the creation of bulk data download files.

Origination Date: 9/15/99

Change Order Number: NANC 299

Description: NPAC Monitoring of SOA and LSMS Associations via Heartbeat

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

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 at the application level 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.

Description of Change:

This is an extension of NANC 219 and NANC 301. Instead of utilizing a TCP Heartbeat and an abort message, the NPAC SMS would utilize an application level heartbeat message on every association. If a response was not returned for any given application level heartbeat message, an alarm would be initiated for NPAC Personnel.

This change order is designed to establish the application level heartbeat process (which requires an interface change to both the NPAC and the SOA/LSMS). This process will allow two-way communication and allow either side to initiate the application level heartbeat message. The application level heartbeat process should be set up so that the functionality can be optionally set up per association.

The alarming process is the same as 219, such that an alarm would be initiated whenever application level heartbeat responses are not sent by the NPAC or SOA/LSMS. When these

alarms occur, the NPAC Personnel would contact the affected Service Provider to work the problem and ensure the association is brought back up.

The current working assumption is that this heartbeat would be a new message, it would not have any access control, it would be at a low level in the protocol stack, this heartbeat would occur on the same port as the association, this message would only occur if no traffic was sent/received after a configurable period of time, and this heartbeat would be two-way to allow either side to initiate this message.

All parties still need to examine if there might be an issue with filtering in their firewalls.

The need for both a network level heartbeat and application level heartbeat still needs to be decided.

Jan 00 LNPAWG meeting, the group has not been able to determine the feasibility of implementing an application level heartbeat. It was agreed to put this change order on hold, pending the outcome of NANC 301 (NPAC TCP Level Heartbeat [transport layer]). The functionality documented in this change order needs further review before this change order can be considered “accepted and ready for selection into a release”.

Origination Date: 12/6/99

Change Order Number: NANC 300

Description: Resend Exclusion for Number Pooling

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

When information about ported (or pooled) numbers is broadcast, no changes in this information can be subsequently broadcast until all service providers' LSMSs have acknowledged successful receipt of the original broadcast. That is, no changes can be made to SVs in a "partial failure" condition. This limitation is being corrected for ported telephone numbers in NPAC Release 4.0. However, a ported pooled thousands block remains subject to this restriction. Change Order NANC 300, proposed for NPAC release 5.0, effectively removes the restriction and allows changes to be made to ported pooled thousands blocks in a partial failure condition.

The business need for this change is the need to correct promptly erroneous NPAC broadcast information about ported pooled blocks. For example, there may be an error in the LRN associated with the pooled thousands block; this would render the block's thousand numbers unusable until the correct LRN information could be modified and broadcast by NPAC. This is less serious a problem than the inability to change an existing ported customer's SV, at least if the error is discovered before numbers from the pooled block are assigned to end-users. However, even if no numbers are yet assigned to end-users, it is important to be able to correct errors promptly rather than being held hostage to a particular service provider's inability to receive or acknowledge broadcasts when the original pooled block broadcast was made. An LSMS can be off line for days during which time no numbers from the block could be used.

A process is available that could be implemented by NPAC personnel for such situations -- using NPA-NXX filters -- but the process is risky and very likely to cause greater problems. A higher definition filter therefore is necessary to avoid the problems introduced by use of existing NPA-NXX filter. The 10-digit filter provided in release 4.0 is not feasible for addressing the problem of pooled thousands blocks. Hence this change order which proposes a 7-digit (NPA-NXX-X) filter.

Description of Change:

This is an extension of NANC 227. During the Dec 99 LNPA-WG meeting, it was proposed to remove Number Pooling functionality from NANC 227, and create a new change order for this functionality.

The NPAC SMS currently rejects a request to "modify active" or "disconnect" a Number Pool Block or SVs of type POOL that has a partial failure status. Nothing can be done to the Block/SV until the discrepant LSMS(s) come back on line, and either recover the broadcast, or accept a re-send from the NPAC.

Similar to NANC 227 for non-pooled SVs, the NPAC should provide a mechanism that allows activity (modify, disconnect, subsequent port) on the Block/SV, regardless of the Failed SP List. This will be done via the resend exclusion functionality (defined in NANC 227), which is a mechanism that allows a Service Provider to be removed from a Failed SP List.

Jun 99, during the Pooling Assumptions walk-thru, four SV requirements were modified, and the functionality was moved into this change order. Basically, the “partial failure/failed” text is moved to this change order. The affected requirements are listed below:

SV-230 Modification of Number Pooling Subscription Version Information – Subscription Data

SV-240 Modification of Number Pooling Subscription Version Information – Status Update to Sending

SV-270 Modification of Number Pooling Subscription Version Information – Status Update

SV-280 Modification of Number Pooling Subscription Version Information – Failed SP List

May 00, using the resend exclusion functionality eliminates the need to update the above four requirements. Other requirements will need to be written to define the functionality.

Origination Date: 2/4/00

Change Order Number: NANC 307

Description: Change BDD Format for NPA-NXX and NPA-NXX-X Files

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Description of Change:

In the NPA-NXX Bulk Data Download file, the NPA-NXX Value has a format that includes a dash between the NPA and the NXX. The proposal is to remove the dash in the NPA-NXX Value field.

In the NPA-NXX-X Bulk Data Download File, the NPA-NXX-X has the same issue with the format of the NPA-NXX-X Value, and the same proposal for removal.

Origination Date: 2/18/00

Change Order Number: NANC 310

Description: Time Reference in the NPAC SMS

Cumulative SP Priority, Weighted Average:

Functional Backwards Compatible: NO

IMPACT/CHANGE ASSESSMENT

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

Business Need:

Currently, the NPAC SMS system time uses Greenwich Mean Time (GMT). Many of the SOA/LSMS applications operate on network time (Central Standard Time year-around). This change order would update the NPAC SMS hardware to run on CST. It would also require the NPAC SMS software to make all decisions based on CST. This change order would eliminate the confusion centered around time/time zone/time conversion issues experienced by system engineers, developers, operations support people and users of the NPAC SMS/SOA/LSMS applications. This change order could reduce a service provider's operational costs by decreasing re-work of porting orders.

Description of Change:

Change the NPAC SMS system time to Network Time (Central Standard Time year round). Therefore, all application level decisions involving date/time would be done in CST. Also, date/time fields in the PDUs over the interface would be CST. The NPAC SMS would store all date/times in CST. However, we may still want the CMIP departure time in the access control of the interface to still be GMT/UTC.

Origination Date: 6/5/00

Change Order Number: NANC 311

Description: Web Presentation of SP Association Status

Cumulative SP Priority, Weighted Average:

Pure Backwards Compatible: YES

IMPACT/CHANGE ASSESSMENT

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

Business Need:

By providing the New Service Provider (NSP) with the status of all LSMS and SOA associations, the NSP would have an additional decision point when performing large ports and allow the two SPs involved in a port to be proactive instead of reactive. If it was known in advance that an SP association(s) was unavailable, the porting activity could be placed on-hold until the association(s) is restored. This would improve the reliability of the porting activities, and help prevent lengthy recovery processes and procedures to complete a port that encountered problems. This would also reduce the instances where provisioning errors occur, and the NSP is unable to quickly correct them because the ported SV(s) is in a Partial Failure status.

Description of Change:

Provide a graphical presentation of the current service status (TBD) for all LSMS and SOA associations in each NPAC region. This would be an enhancement to NANC 219 and 301 (Association Monitoring) which both will be fully deployed in NPAC SMS Release 4.0. The information would be presented on the Secure Web site. The association status information presented will be dynamically updated every (TBD) seconds.