NANC CHANGE ORDER IMPLEMENTED

**(Rev: 35 – 02/28/2014)**

**Table of Contents**

Release 0.1 4

Release 1.0 7

Release 1.1 22

Release 1.2 31

Release 1.3 37

Release 1.4 41

Release 1.5 45

Release 1.6 49

Release 1.7 57

Release 1.8 65

Release 1.9 68

Release 1.10 74

Release 2.0.0 78

Release 2.0.1 98

Release 2.0.2 115

Release 3.0.0 128

Release 3.0.1 151

Release 3.0.2 169

Release 3.1.0 190

Release 3.2.0 207

Release 3.2.1 248

Release 3.2.2 256

Release 3.3.0 257

Release 3.3.1 309

Release 3.3.2 313

Release 3.3.3 318

Release 3.3.4 324

Release 3.3.4.1 332

Release 3.4 334

Release 3.4.2 346

Release 3.4.3 347

Release 3.4.4 348

Release 3.4.6 349

Release 4.0.0 353

Closed/No Action 354

Closed/No Action 354

Summary of Change Orders 426

# Release 0.1

| **Release 0.1 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 1 | | NANC Meeting 1/27/97 | Document Title Changes  The title of the NANC FRS created from the Illinois FRS version 1.4 should be “North American Numbering Council (NANC) Functional Requirements Specification”. The subtitle should remain the same. The revision number should be “Draft Version 0.1”. All document footers will be updated appropriately. The Graphic of Illinois will also be removed from the title page. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 2 | | NANC Meeting 1/27/97 | Preface on Number Scheme  In section 0.2 a notation on the numbering scheme will be put in to indicate that (at least for the time being) Illinois number has been adopted with an explanation of how the number scheme has been maintained. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 3 | | NANC Meeting 1/27/97 | Removal of Unnecessary Illinois references  In the Introduction section 1, the first sentence, the following text should be removed “in Illinois LATA 358”.  CN1-1 should have the following words removed “within Illinois LATA 358”  A global search will be done in the document to insure there are no other references that should be removed. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 4 | | NANC Meeting 1/27/97 | Removal of Assumptions  Assumption A10-1, A10-2, and A10-3, which are specific to Illinois, should be deleted in section 1.5 and in section 10.2. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 5 | | NANC Meeting 1/27/97 | Removal of Section 1.7 Related Publications  Section 1.7 should be removed due to the fact that it is incomplete and is a duplicate of the related publication section after the cover page. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 6 | | NANC Meeting 1/27/97 | Addition of R5-19.2 and RR5-6.9  The following requirements will be added in section 5 to support the addition of Illinois Change order 132 described as below:  R5-19.2 - Create 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 is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS.  RR5-6.9 - 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 is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 7 | | NANC Meeting 1/27/97 | Removal of “NOT A SYSTEM REQUIREMENT”  As a global change in the document, the following text associated with requirements should be removed “NOT A SYSTEM REQUIREMENT – CANNOT BE TESTED” | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 8 | | NANC Meeting 1/27/97 | Deletion/Modification of Requirements in Section 10  The following requirements should be removed in section 10.2 and 10.3:  R10-15, R10-17, RN10-1  Requirement R10-16 should have the words “sized for 30 Service Providers” replaced with “sized for the region they service”. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |
| NANC 9 | | NANC Meeting 1/27/97 | Removal of all Requirements in Sections 6.1 and 6.2  Requirements in sections 6.1 and 6.2 should be removed as duplicates of functionality specified in other sections of the FRS and the IIS. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. |  |  | |

# Release 1.0

| **Release 1.0 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| ILL 181 | | Illinois  2/24/97 | Key’s for EACH Service Provider Interface  Requirement R7-111.6 in FRS 0.1 states that “key initiation [is] to be requested on a per Service Provider basis”. This has been interpreted that one key be supported per Service Provider. The NPAC SMS under this requirement would expect one key from a key list for all associations for a Service Provider regardless of whether it is a SOA or LSMS association. This means that the LSMS and SOA systems would have to coordinate with one another to make a key change.  It has been requested that keys be treated independently at the presentation layer for an association. By using the presentation layer (or by PSAP address) support of a key, SOAs and LSMS systems could have unique keys. In addition, if an LSMS, for instance, is made up of two processes, one supporting network subscription data download and the other supporting query; they could have unique keys. | High | FRS/IIS | Changes were made in the 1.0 release of the IIS and FRS.  This change order is also addressed in Rel 1.9. |  |  | |
| IL 188 | | Illinois 2/24/97 | FRS RR5-38.3 Consistency Problem RR5-38.3 in FRS 0.1 states that the NPAC SMS will only allow re-sends on subscriptions with a failed or partial fail status. It conflicts with the following two requirements (RR5-38.4&5) that deal also with resends of failed/partially failed modify and disconnect broadcasts.  Requirement RR5-38.3 should be modified to state that we would only allow resends of subscriptions that have failed LSMSs associated with the subscription's last operation. This will circumvent the problem of using status to determine if we can resend an SV. | Medium | FRS | Changes were made in the 1.0 release of the FRS. |  |  | |
| NANC 10 | | Perot Systems  3/2/97 | SystemType ASN.1 In the ASN.1 for SystemType there is an enumerated type of soa-and-local-sms. This type is present to allow SOA and LSMS system functions to be performed over the same association. It has been requested that support for this enumerated type be optional for the NPAC SMS vendor. | Medium | IIS | IIS modifications were made in the 1.0 release. |  |  | |
| NANC 11 | | NANC meeting 3/5/97 | Business Day Default rewording Requirement RR3-13.2 should be reworded in FRS 0.1 to be more generic for regional support as follows:  NPAC SMS shall default the Business Day Start Time tunable parameter to the value specified by the contracting region.  The default value in 11-1 should also be updated to be TBD. | Medium | FRS | FRS was modified in the 1.0 release. |  |  | |
| NANC 12 | | NANC meeting 3/5/97 | Conflict Restriction Window Tunable Clarification/Modification  It has been clarified by NANC that the intent of the conflict restriction window was that it was to be business hours not calendar hours. The following requirements would be changed as follows:  RR5-42.2  NPAC SMS shall provide a Conflict Restriction Tunable which is defined as the time on the business day prior to New Service Provider due date that a pending Subscription Version can no longer be placed into conflict state by the old Service Provider.  RR5-42.4  NPAC SMS shall default the Conflict Restriction Window Tunable Parameter to 12:00 noon.  Appendix C would also be updated to have a default value of 12:00, a unit of HH:MM, a valid range of 00:00-24:00, and a definition as follows: “The time on the business day prior to the New Service Provider due date that a subscription version is no longer allowed to be set to conflict by the Old Service Provider.” | Medium | FRS | FRS was modified in the 1.0 release. |  |  | |
| NANC  13 | | NANC meeting 3/5/97 | Notification of T2 expiration to Old SP There is currently no notification defined in the FRS or IIS to be sent to the old SP when the final concurrence timer (T2) expires. It has been requested that a final concurrence timer expiration notification called SubscriptionVersionOldSPFinalConcurrenceWindowExpiration will be sent to the old SP upon expiration of T2.  A requirement would be added as follows:  R5-23.3.1 Old Service Provider Final Concurrence Timer Expiration Notification  NPAC SMS shall upon expiration of the Final Concurrence Timer send a notification to the old service provider via the SOA to NPAC SMS interface to inform them of the timer expiration.  An additional notification and log record (lnpLogOldSPFinalConcurreneWindowExpirationRecord) for the notification will be added to the IIS. | Medium | FRS / IIS / ASN.1/ GDMO | FRS and IIS were modified in the 1.0 release. |  |  | |
| NANC 14 | | Perot  3/5/97 | GDMO Document References All references to “Rec X.721…” should be changed to “CCITT Rec X.721…” and replaced “Rec. X.660 | ISO/IEC 9834-1 : 1992” should be changed to “CCITT Rec. X.660 (1992) | ISO/IEC 9834-1 : 1992”. In addition, before each word in “REGISTERED AS {” it should have “LNP-OIDS.” So for instance:  REGISTERED AS {lnp-objectClass 4};  Would become:  REGISTERED AS {LNP-OIDS.lnp-objectClass 4}; | Low | IIS / GDMO | FRS and IIS were modified in the 1.0 release. |  |  | |
| NANC 15 | | Perot  3/5/97 | FRS GDMO Definition CorrectionThere are several places in the RFP where GDMO is defined as “Generalized Definition of Managed Objects” such as in R6-30.1 and in the Glossary. This should be corrected to be “Guideline for the Definition of Managed Objects”. | Low | FRS | FRS was modified in the 1.0 release. |  |  | |
| NANC 16 | | Perot  3/5/97 | Retry wording clarification in IIS The following sections should have wording modifications to clarify that the retry is at an application level.  Section 5.2.3, the third paragraph that appears after the second set of bullets, second sentence the sentence that starts "If the timer..." should be reworded to begin as follows:  "If the timer expires before the M-Get CMISE service response is received...."  Section 5.3.3.1, the last paragraph, first sentence, should be reworded to begin as follows:  "If the NPAC SMS sends a request to a Local SMS or SOA and receives no response from the CMISE service within the tunable period, ...." | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 17 | | Perot  3/5/97 | ASN.1 addition of word EXPLICT for tagging The word EXPLICIT will be added preceding the tags in the ASN.1. This change would necessitate a recompile but would not impact vendor code. | Low | IIS / ASN.1 | IIS was modified in the 1.0 release. |  |  | |
| NANC 18 | | Perot  3/5/97 | ASN.1 Comment for NetworkDownloadCriteria A comment will be added to the ASN.1 for NetworkDownloadCriteria as follows to indicate that we are aware that double tagging is being done for the elements in chc2: “A decision was made by NANC to leave this structure a CHOICE of CHOICEs instead of using one CHOICE to simplify tagging” | Low | IIS / ASN.1 | IIS was modified in the 1.0 release. |  |  | |
| NANC 19 | | Perot  3/5/97 | Rewording of M-CANCEL-GET note The note on page 9 of IIS 1.4 in section 2.1 would be reworded as follows:  Note: The M-CANCEL-GET primitive may not be supported in some NPAC SMS implementations due to the fact that this functionality was not determined necessary for the interface defined. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 20 | | Perot  3/5/97 | Addition of lnpSpecificInfoParameterAddition of an lnpSpecificInfoParameter parameter was proposed to the GDMO to inform a manager that the lnpSpecificInfo can appear with processing failures for operations. Addition of this parameter would necessitate a recompile but would not impact vendor code. The parameter is as follows: LnpSpecificInfoParameter PARAMETER  CONTEXT SPECIFIC-ERROR;  WITH SYNTAX LNP-ASN1.LnpSpecificInfo;  REGISTERED AS  {LNP-OIDS.lnp-parameter 2}; | Low | IIS / GMDO | IIS was modified in the 1.0 release. |  |  | |
| NANC 21 | | Perot  3/5/97 | IIS Section 6 note modification The note on page 53 of IIS 1.4 in section 6.1 should be modified as follows: NOTE: The order of messages in the message flows must be followed by the NPAC SMS, SOA, and LSMS systems with the exception of the return of the M-EVENT-REPORT confirmations. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 22 | | MCI | IIS 6.5.6 Flow modification In IIS 1.4 flow scenario 6.5.6- -- it is specified that a ‘resource Limitation’ error will be returned. This error code should be complexityLimitation. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 23 | | Perot Systems 3/17/97 | IIS 6.2.1 Flow Modification In flow 6.2.1 in IIS 1.5, serviceProvID is not an attribute of subscriptionAudit and should be removed and replace with subscriptionAuditRequestingSP. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 24 | | Perot Systems 3/17/97 | IIS 6.5.1.2/6.5.1.3 Flow Modification In IIS 1.5 flows 6.5.1.2 and 6.5.1.3 the subscriptionNewSP-AuthorizationTimeStamp should be removed from the text in step c. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 25 | | Perot Systems 3/17/97 | IIS 6.5.4.1/6.5.4.2 Flow Modification In IIS 1.5 flows 6.5.4.1 and 6.5.4.2 step b should have the LNPType removed from the verbiage and should indicate a range of TNs can be specified. The second sentence in step b should begin as follows: “The M-ACTION specifies either the subscriptionVersionId, or subscription TN or range of TNs, and also has….” | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 26 | | Perot Systems 3/17/97 | IIS 6.5.5.2 Flow Modification In IIS 1.5 flow 6.5.5.2 step c should read “subscription version TN or subscription version ID” instead of “and”. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 27 | | Perot Systems 3/17/97 | IIS servProvLRN-Behaviour ModificationIIS 1.5 is incomplete. It should be modified to indicate the SOA initiated commands. The fifth and sixth paragraphs should start “A Local SMS or SOA can...”  The last paragraph, first sentence, should read “The serviceProvLRN-Value attributes on the NAPC SMS can not be modified by the Local SMS or SOA.” | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 28 | | Perot Systems 3/17/97 | IIS subscriptionVersionBehavior Modification In IIS 1.5 the susbcriptionVersionBehavior should be modified as follows:  In the third paragraph should have the word serviceProvVersionId replaced with subscriptionVersionId.  In the sixth paragraph should have download-request removed as a value for subscriptionDownloadReason. | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 29 | | Perot Systems 3/17/97 | IIS subscriptionLNPType Behavior Modification In IIS 1.5 the second paragraph referring to log records should be removed since the subscriptionLNPType is not contained in any log record. | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 30 | | Perot Systems 3/17/97 | Attribute Behavior Updates SubscriptionOldSP, subscriptionOldSP-AuthorizationTimestamp and subscriptionOldSP-Authorization attributes should have the last sentence in their behavior modified to read “…for a new SP create request notification…”.  SubscriptionNewCurrentSP and subscriptionNewSP-CreationTimeStamp attributes should have the last sentence in their behavior modified to read “…for a old SP concurrence request notification…”. | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 31 | | Perot Systems 3/17/97 | IIS subscriptionOld/NewSP-DueDate Behavior Modification In IIS 1.5 the behavior for subscriptionOldSP-DueDate and subscriptionNewSP-DueDate should be modified to replace the last sentence with the following sentence: “The time if not specified with the date is defaulted to 00:00:00.” | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 32 | | Perot Systems 3/17/97 | IIS serviceProvNPA-NXX-Behavior ModificationIIS 1.5 is incomplete. It should be modified to indicate the SOA initiated commands. The fifth and sixth paragraphs should start “A Local SMS or SOA can...” | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 33 | | Perot Systems 3/17/97 | IIS subscriptionAuditBehavior Modification In IIS 1.5 service provider ID should be replaced with “requesting SP in paragraph 6 of the subscriptionAuditBehavior. | Low | GDMO TEXT ONLY | IIS was modified in the 1.0 release. |  |  | |
| NANC 36 | | NANC 3/18/97 | Low-tech Interface Requirements The NPAC SOA Low-tech interface requirements as agreed upon in the NANC conference call on 3/18/97 will be included in the FRS. | Low | FRS | FRS was modified in the 1.0 release. |  |  | |
| NANC 37 | | Lockheed Martin  3/18/97 | Primitive Error List Modification The following primitive errors should be removed from exhibit 94 in appendix A of the IIS 1.5 because they will not be supported in the NPAC SMS due non-support by some CMIP toolkits:  resourceLimitation  invalidOperation  invalidOperator | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 38 | | MCI  3/20/97 | IIS Flow 6.4.1.6 Clarification In flow 6.4.1.6 in IIS 1.5, step (d), there is a sentence reading: ' ...exist with this LRN that have....' This flow is regarding NPA-NXX Deletion by the SOA, and should be corrected to read: '... exist with this NPA-NXX that have...'. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 39 | | MCI  3/20/97 | Section 4.2.2 Correction Section 4.2.2 'Filtering' in IIS 1.5 indicates 'OR and NOT filter support are not required  for the Local SMS or the NPAC SMS'. This contradicts section 5.3.4.2 'SOA resynchronization' which indicates  'a query should be launched based upon the new OR old service provider equal to  the SOA service provider...'.  The bullet should read: “OR and NOT filter support is not required for the Local SMS.”. A new bullet should be added that reads “NOT filter support is not required for the NPAC SMS”. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 40 | | MCI  3/20/97 | SOA flows for NPA-NXX filter management In IIS 1.5 section 6.6 (NPA-NXX filters) additional flows should be added to reflect SOA side capabilities for creation, deletion and query of NPA-NXX filers by the SOA to be consistent with the FRS requirements RR3-5 through RR3-9. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 41 | | AT&T 3/20/97 | SubscriptionModifyData ASN.1 Tagging Correction  In the ASN.1 for IIS 1.5 the SubscriptionModifyData tags start with 2. It should start with 0. | Low | IIS/ASN.1 | The ASN.1 and IIS were modified in the 1.6 release. This is a recompile only change. |  |  | |
| NANC 42 | | AT&T  3/20/97 | Documentation of lnpLocal-SMS-Name Value The value of the lnpLocal-SMS-Name attribute is spid+lnpNPAC-Name. For AT&T this would be 7421-Midwest Regional NPAC SMS”.  A local SMS is to instantiate the lnpLocal-SMS object in the MIT. For each region that the LSMS interacts, it must create a lnpLocal-SMS object with the appropriate lnpLocal-SMS-Name value. Since the lnpLocal-SMS-Name consists of the lnpNPAC-Name attribute, the NPAC SMS name values should be identified and documented in the IIS.  This should added in a new section 4.3 titled lnpLocal-SMS-Name and lnpNPAC-SMS-Name Values. The body text should be as follows:  The table below (could put reference here) shows the values to be used for all currently identified NPAC regions for lnpNPAC-SMS-Name in the lnpNPAC-SMS object. The lnpLocal-SMS-Name for the lnpLocal-SMS object will be the service provider id followed by a dash and the lnpNPA-SMS-Name (e.g. 9999-Midwest Regional NPAC SMS).  (continued) | Low | IIS | IIS was modified in the 1.0 release.  Region names will be those assigned and used by the architecture. |  |  | |
| NANC 42 (cont.) | |  | NPAC SMS Region lnpNPAC-SMS-Name -------------------------- ----------------------------------  Mid-Atlantic Mid-Atlantic Regional  NPAC SMS  Mid-West Mid-West Regional  NPAC SMS Northeast Northeast RegionalNPAC SMS Southeast Southeast Regional  NPAC SMS  Southwest Southwest Regional  NPAC SMS  Western West Regional  NPAC SMS  West Coast West Coast Regional  NPAC SMS |  |  |  |  |  | |
| NANC 50 | | MCI  3/27/96 | Flow 6.5.1.6.2 Clarification The first sentence should be modified to state: “This scenario shows no response within “Service Provider Concurrence Window” by the old service provider SOA. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 52 | | MCI  3/27/96 | Flow 6.5.2.1, 6.5.2.3, and 6.5.3.1 Modification   Step a. should be modified for flows 6.5.2.1, 6.5.2.3, and 6.5.3.1 to indicate how the version to be modified or canceled is identified.  The first sentence of step a in flow 6.5.2.1 should state: “Action is taken by current service provider to modify an active subscription version by specifying the TN, TN range, or version id of the active superscription version to be modified and the data to be modified.”    The first sentence of step a in flow 6.5.2.3 should state: “Action is taken by a service provider to modify a subscription version by specifying the TN, TN range, and optionally the version status or by specifying the version id and of the superscription version to be modified and the data to be modified.”  The first sentence of step a in flow 6.5.3.1 should state: “Action is initiated by the old or new service provider SOA to cancel a subscription version by specifying the TN, TN range, or version id of the superscription version to be canceled. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 53 | | MCI  3/27/97 | Chapter 10 Modifications In the version status interaction diagram and description, all references to “cancel” as a state should be “canceled”. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 54 | | AT&T 3/26/97 | Definition of Cause Code Values Cause code values should be defined in the FRS.  The defined values are as follows:  The values less than 50 were reserved for SMS NPAC internal use.  Other defined values are:  0 – NULL (DO NOT MODIFY)  1 - NPAC automatic cancellation  50 - LSR Not Received  51 - FOC Not Issued  52 - Due Date Mismatch  53 - Vacant Number Port  54 - General Conflict | Low | FRS | FRS was modified in the 1.0 release. |  |  | |
| NANC 56 | | Perot  3/27/97 | Flow 6.5.2.3 and 6.5.2.4 corrections IIS 1.5 flows 6.5.2.3 Subscription Version Modify Prior to Activate Using M-ACTION and 6.5.2.4 Modify Prior to Activate Using M\_SET show a status attribute value change due to action taken by the new SP. This is incorrect. In the case of the old SP doing a M-ACTION or M-SET they could change the authorization flag causing the status to change to conflict. I am not sure on these scenarios. The attribute value change notifications to the old and new service providers will be removed in these scenarios with a note indicating that a status attribute value change could be sent in the case of an old service provider taking action that causes a status change. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 57 | | AT&T  3/27/97 | Digital Signature Clarification The IIS 1.5 in section 5.2.1.10 specifies the contents of the digital signature in LnpAccessControl to be:  "...the systemId, the systemtype, the userId, the cmipDepartureTime, and sequenceNumber without separators between those fields or other additional characters. This data "  The actual encoding of the data before hashing and encrypting is not specified. For example, the systemtype is an enumerated type with integer values. The size and byte order of integers on my system may differ from those on the NPAC system.  The following sentence will be added in section after the sentence referenced above: Before hashing and encryption, character fields are ASCII format and integer fields are 32 bit big endian. | Low | IIS | IIS was modified in the 1.0 release. |  |  | |
| NANC 159 | | AGCS 9/17/97 | Single TN in a Range CreateThe Lockheed implementation does not support subscription version create on a single TN with a TN range where the starting TN equals the ending TN. Perot implementation supports this functionality. |  | IIS | Desired behavior should be determined and documented.  A single TN should not be specified as a range.. Lockheed ITP to be updated. Perot to implement change in the future.  IIS was clarified in Release 1.0. |  |  | |

# Release 1.1

| **Release 1.1 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 51 | | 3/26/97  Lockheed Martin | OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal. | Medium | IIS/ASN.1 | OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal. |  |  | |
| NANC 58 | | Lucent  4/1/97 | Data Download for a ModifyAll values are sent in the download for a modified object. The GDMO behavior should be modified for the lnpDownload action to add the following sentence to the end of the first paragraph in the action post condition behavior: “All data for objects that have been modified is downloaded not just the information that was changed.” | Low | IIS/GDMO | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 59 | | AT&T  4/11/97 | Old SP Concurrence Request Notification The GDMO definition for the subscriptionVersionOldSP-ConcurrenceRequest is slightly different than the ASN.1 definition and should be corrected.  The attribute ids shown in the notification are as follows:  AND ATTRIBUTE IDS  tn subscriptionTN,  version-id subscriptionVersionId,  service-prov-id subscriptionNewCurrentSP,  service-prov-due-date  subscriptionNewSP-DueDate,  service-prov-creation-time-stamp  subscriptionNewSP-CreationTimeStamp,  access-control accessControl;  However the ASN.1 contains the following:  VersionCreateConcurrenceRequest ::= SEQUENCE {  tn PhoneNumber,  version-id LnpKey,  service-prov-id ServiceProvId,  service-prov-due-date GeneralizedTime,  service-prov-authorization-time-stamp  GeneralizedTime  access-control LnpAccessControl } | Low | IIS/GDMO/ASN.1 | The ASN.1 should be updated to state service-prov-authorization-time-stamp to be service-prov-authorization-creation-time-stamp. The GDMO for the subscriptionVersionOldSP-ConcurrenceRequest should be modified to replace service-prov-creation-time-stamp with service-prov-authorization-creation-time-stamp. The GDMO for subscriptionVersionNewSP-CreateRequest should have service-prov-authorization-time-stamp should be replaced with service-prov-authorization-creation-time-stamp. The service-prov-authorization should also be replaced with service-prov-old-authorization in the subscriptionVersionNewSP-CreateRequest.  This change will be made in release 1 per the NANC 4/18 conference call as part of IIS 1.1. |  |  | |
| NANC 60 | | Perot Systems 4/3/97 | Range Operation ClarificationIt should be made clear in the IIS that range operations are atomic. A note will be put in section 6.5 of the IIS stating the following: “All actions for subscription versions in the flows that follow are atomic. If the operation fails for one TN in a range it fails for all TNs in the range.” | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 61 | | DSET  4/3/97 | SubscriptionVersionModify Behavior Modification The GDMO behavior for the subscriptionVersionModify Action in paragraph ten that starts “If validation fails no changes…” should be replaced with the following paragraph: “If validation fails no changes will be made and an error will be returned. If validations passes the version will be modified and remain in a pending or active state. | Low | IIS/GDMO | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 62 | | Lockheed Martin Team  4/3/97 | Filter NPA-NXX Object Behavior Description/Modification  The description for the LSMS filter object is inconsistent in the IIS. Exhibit 6 shows the object is available for modification from the SOA. There are flows for the SOA in the NANC 1.0 release. However, exhibit 7 and the lnpFilterNPA-NXX object behavior conflict with the sections mentioned above and are inconsistent with the requirements.  The direction (to/from) column for the filter Exhibit 7 should be updated for LSMS Filter NPA-NXX Create/Delete/Query to show from SOA in addition to from LSMS.  The GDMO should be modified to state the following:  NPAC SMS Managed Object used for the Local SMS to NPAC SMS interface and the NPAC SMS to SOA interface.  All attributes are read only. Once, created the lsmsFilterNPA-NXX object can be deleted via the Local SMS or SOA. The lsmsFilterNPA-NXX-ID is specified by the NPAC SMS.  The Local SMS or SOA can M-DELETE, M-CREATE, and M-GET the lsmsFilterNPA-NXX objects on the NPAC SMS. (Network Data Association Function). | Low | IIS/GDMO | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 63 | | Lockheed Martin Team  4/3/97 | Flow 6.5.1.1 and 6.5.1.2 Modifications Flows 6.5.1.1 and 6.5.1.2 should be modified to add two additional steps to show the subscriptionVersionNewNPA-NXX notification being sent to and confirmed by the SOA systems. | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 64 | | AT&T  4/2/97 | Flow 6.5.1.1/6.5.1.2 objectCreation Notification Clarification  The following should be added to step f of flow 6.5.1.1 to clarify the attributes sent in an objectCreation notification:  The following attributes are sent in the objectCreation notification:  subscriptionTN  subscriptionOldSP  subscriptionNewCurrentSP  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  subscriptionOldSP-AuthorizationTimeStamp  subscriptionStatusChangeCauseCode  (if set to FALSE)  subscriptionVersionStatus    The following should be added to step f of flow 6.5.1.2 to clarify the attributes sent in an objectCreation notification:  The following attributes are sent in the objectCreation notification:  subscriptionTN  subscriptionOldSP  subscriptionNewCurrentSP  subscriptionNewSP-CreationTimeStamp  subscriptionVersionStatus  subscriptoinNewSP-DueDate | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 65 | | AT&T  4/2/97 | Flow 6.5.1.3/6.5.1.4 attributeValueChange Notification Clarification  The following should be added to steps f and h in flow 6.5.1.4 to clarify the attributes sent on the attributeValueChangeNotification:  The following attributes are sent in the attributeValueChange notification:  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  subscriptionOldSP-AuthorizationTimeStamp  The following should be added to steps f and h in flow 6.5.1.3 to clarify the attributes sent on the attributeValueChangeNotification:  The following attributes are sent in the attributeValueChange notification:  subscriptionNewSP-DueDate  subscriptionNewSP-CreationTimeStamp | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 66 | | Lockheed Martin Team 4/11/97 | Flow 6.5.5.2 Modification  Flow 6.5.5.2 should show the subscriptionVersionStatusAttributeValueChange notifications to the old and new service providers for the status changing from conflict to pending. | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 67 | | Lockheed Martin Team 4/11/97 | Flow 6.5.4.6 Modification  Flow 6.5.4.6 should show in the flow for steps g. and i. In the subscriptionVersionStatusAttributeValueChange notifications (subscriptionVersionStatus=old or active) instead of (subscriptionVersionStatus=old). The text accurately reflects this but the flow doesn’t. | Low | IIS | IIS modifications will be made in the 1.1 release. |  |  | |
| NANC 69 | | MCI  4/14/97 | NANC 1.0 and IIS discrepancies resulting from Change Order #52  The FRS 1.0 has not been updated (in requirements R5-26, R5-35, R5-62, and R5-69) to reflect the ability to specify by range of TNs. | Medium | FRS 1.1 | The FRS should be updated in release 1.1 to be consistent with the IIS regarding change order #52. |  |  | |
| NANC 70 | | MCI  4/14/97 | FRS R5-26 Modify Subscription Version – Version Identification  The FRS R5-26 does not reference disconnect-pending as in IIS flow 6.5.2.3. | Medium | FRS 1.1 | The FRS requirement R5-26 should be updated in release 1.1 to include disconnect-pending. |  |  | |
| NANC 71 | | AT&T  4/13/97 | IIS key size specification  The IIS 1.0 section 5.2.1.5 does not specify a maximum key size. | Low | IIS | The IIS should be updated in release 1.1 to reflect a maximum key size of 2048, based upon commercial product limitations. It should also be updated to accurately reflect that the key size can range from 600 to 2048. |  |  | |
| NANC 72 | | Lockheed Martin Team  4/13/97 | Scoped/Filtered GET of Network Data from SOA  Scoping and filtering should be from serviceProvNetwork, not lnpNetwork in the IIS flow 6.4.2.11. | Medium | IIS | The IIS should be updated in release 1.1 to reflect that filtering should be done from serviceProvNetwork and not lnpNetwork. |  |  | |
| NANC 73 | | Pacific Bell  4/14/97 | Universal Time format  The universal time format should be specified in section 5.2.1.6 CMIP Departure Time of the IIS. Universal time is used in the interface for timestamps and is in the format of: YYYYMMDDHHMMSS.0Z. | Low | IIS | The IIS should be updated in release 1.1 to include the universal time stamp format. |  |  | |
| NANC 74 | | Perot  4/7/97 | GDMO for subscriptionVersionNewSP-CreateBehavior BEHAVIOUR  The second sentence does not include the scenario that creates can be performed when there is no currently active subscription version. The IIS GDMO subscriptionVersionNewSP-CreateBehavior BEHAVIOUR second sentence should be updated to read “Creates can only be performed provided there is only one currently active subscription or no subscription version in the NPAC or an action failure will be returned.” | Medium | IIS/GDMO | The IIS will be updated for version 1.1. |  |  | |
| NANC 75 | | Perot  4/7/97 | GDMO for subscriptionVersionModifyBehavior BEHAVIOUR  Paragraph 8 incorrectly states that a disconnect-pending subscription version can be modified to cancel pending. This is not a valid state transition. It should read “A new service provider can modify the subscriptionVersionStatus for a pending subscription version to cancel pending.” | Low | IIS/GDMO | The IIS will be updated for version 1.1. |  |  | |
| NANC 76 | | Perot  4/7/97 | Purpose of subscriptionOldSP-DueDate There is no explicit purpose stated for subscriptionOldSP-DueDate. A sentence should be added to subscriptionVersionNPAC-Behavior BEHAVIOUR at the beginning of paragraph 33 to read “The subscriptionOldSP-DueDate and subscriptionNewSP-DueDate must match.” | Low | IIS/GDMO | The IIS will be updated for version 1.1. |  |  | |
| NANC 78 | | Lockheed Martin Team 4/22/97 | OID usage and NpacAssociationUserInfoNpacAssociationUserInfo should be made a lnpAttribute so that it has an OID that can be used in the UserInfo field. Currently we are using the ASN.1 OID.Listed below are the OID’s being used. These should be documented in the IIS.OIDs Used for BIND REQUESTS:CMIPUserInfo OID = 2:9:1:1:4(per standards and pp49 IIS1.5)CMIPAbortInfo OID = 2:9:1:1:4(per standards and pp51 IIS1.5)LnpAccessControl OID = {lnp-attribute 1} =1:3:6:1:4:1:103:7:0:0:2:1UserInfo (NpacAssociationInfo) OID =1:3:6:1:4:1:103:7:0:0:2:105Application context = OID 2:9:0:0:2(per standards)OTHER OIDs of INTEREST:AccessControl OID as part of a SMI notification = 1:3:6:1:4:1:103:7:0:0:8:1accessControl as part of LNP notifications ={lnp-attribute 1} = 1:3:6:1:4:1:103:7:0:0:2:1 | Medium | IIS/GDMO | Add an attribute definition for NpacAssociationUserInfo to be standards compliant. The OIDs would be documented in the IIS.  New ASN.1 and GDMO are available on the web as of 5/2. The IIS will be updated in the 1.1. |  |  | |

# Release 1.2

| **Release 1.2 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| ILL 142 | | Illinois  1/9/97 | MOC Definition Updates  The MOCS should be reviewed for consistency to insure all information is correct. For instance that all defined or inherited values are present and that set-by-create is specified properly. | Medium | IIS | Changes will be made in the 1.0 release of the IIS.  This change did not get implemented in IIS 1.5 due to time needed for procurement of a modeling tool to generate these tables.  This update was made in the 1.2 release of the IIS. |  |  | |
| NANC 84 | | Lockheed Martin Team 4/30/97 | LnpNetwork behavior update The lnpNetworkName attribute provides an identifier for the lnpNetwork object. The behaviour currently states the valid values are "lnpName" for the NPAC SMS to Local SMS Interface. It should be modified to be  "lnpNetwork". | Low | IIS/GDMO | This change will be made in the IIS 1.2. |  |  | |
| NANC 85 | | Lockheed Martin Team 4/30/97 | Flow 6.5.5.1 Modification The IIS flow for conflict (section 6.5.5.1) is missing the message for the modification of the old SP authorization flag to false when an  SV is put into conflict. An additional M-EVENT-REPORT message should be sent to both the old and new SP SOAs in the top section of the flow diagram. These steps would be like steps o-r showing the authorization flag set to false after step g. | Low | IIS | This change would be made in the IIS 1.2. |  |  | |
| NANC 86 | | AT&T4/30/97 | Unique NPAC customer Ids It has been requested that unique NPAC customer ids be documented in the IIS with the regional names in section 4. | Low | IIS | This change would be made in the IIS 1.2.  Mid-Atlantic – 0001  Midwest – 0000  Northeast – 0002 Southeast – 0003 Southwest – 0004  Western – 0005  West Coast – 0006 |  |  | |
| NANC 88 | | MCI5/1/97 | Id Naming attributes Non-zero Naming attributes will never be zero in the Lockheed Martin implementation. A request was made to add a statement to the IIS to state that non-zero values are not supported in the auto instance naming attributes. Naming attributes will never be zero in the Lockheed Martin implementation. However, it is unclear if this is the case in the Perot implementation. | Low | IIS | This change will be made in the IIS 1.2.  Perot does not use non-zero values. |  |  | |
| NANC 91 | | Perot 5/1/97 | IIS Section 4.2.2 The fourth bullet that discusses rollback is not correct and is not in any way associated with filtering. It should be replaced with a bullet that states that CMISSync is not supported for any scoped/filtered CMIP operation. | Low | IIS | This change made in the IIS 1.2. |  |  | |
| NANC 92 | | Lockheed Martin Team 5/4/97 | Flow 6.5.3.2 ClarificationThere was confusion in flow 6.5.3.2 flow doesn't state that the old SP sent the original cancel request and that the old SP acknowledgement is optional. This will be clarified. | Low | IIS | This change will be made in the IIS 1.2. |  |  | |
| NANC 93 | | Bellcore 5/13/97 | Date and Time in GDMO/ASN.1 The date and timestamp of creation/update in addition to the version the IIS the GDMO and ASN.1 are associated with will be in the comments at the top of the files. | Low | IIS | This change will be made in the IIS 1.2. |  |  | |
| NANC 94 | | Nortel 5/12/97 | IIS NANC 1.1, section 4.2.1Rewording the second paragraph of 4.2.1 has been proposed. Since all CMIP operations have scope (no scope defaults to baseObject Scope), the following statement is in error:"In addition, the SOA to NPAC SMS does not support scoping of CMIP operations of any type for the following objects:- lnpNPAC-SMS- lnpServiceProvs”"Scoping" means scope other than baseObject Scope. It should be reworded as follows:"NPAC SMS is not required to support Scope other than baseObject Scope for CMIP operations that specify baseManangedObjectClass of one of the following:- lnpNPAC-SMS- lnpServiceProvs” | Low | IIS | This change would be made in the IIS 1.2. This change is being reviewed by the group for discussion on the next call.  It was agreed to implement this change on 5/23/97. |  |  | |
| NANC 95 | | Nortel5/12/97 | Reference: IIS NANC 1.1, section 4.2.2The fourth limitation states: "Filter requests must follow the rules of the NPAC SMS.". It has been proposed that the wording be changed to:"All authorization rules apply to scoped and filtered operations." so that in defining the filter rules it is clear what other rules should be followed. | Low | IIS | This change will be made in the IIS 1.2. |  |  | |
| NANC 96 | | Bellcore 5/12/97 | T2 timer not on subcriptionVersionNPACThe T2 timer notification was added to the GDMO and ASN.1 and the log record for the notification however it did not get added to the subscriptionVersionNPAC object.This notification section of the GDMO for the subscriptionVersionNPAC should be modified to add the subscriptionVersionOldSPFinalConcurrenceWindowExpiration. | Low | IIS/GDMO/  ASN.1 | This change will be made in the IIS 1.2. |  |  | |
| NANC 97 | | Lockheed Martin Team 5/15/97 | OID usage and NpacAssociationUserInfoUpdates to changes made in NANC CO 78OIDs Used for BIND REQUESTS:CMIPUserInfo OID = 2:1:1(per standards and pp49 IIS1.5)CMIPAbortInfo OID = 2:1:1(per standards and pp51 IIS1.5) | Medium | IIS/GDMO | Change attribute definition for NpacAssociationUserInfo to be standards compliant.  The IIS will be updated in the 1.2 release. |  |  | |
| NANC 98 | | Lockheed Martin Team 5/22/97 | TSAP data required in FRSTable 3-4 in the FRS, NPAC Customer Network Address Data Model, indicates that the TSAP is not a required field, unlike the other selectors. The table should be changed to make the TSAP field required. | Low | FRS | The FRS updates would be made in release 1.2. |  |  | |
| NANC 99 | | Perot Team 5/21/97 | NANC IIS 1.1, section 10 Subscription Version Status Row 2In the Version Status Interaction Description table, row #2,the description reads:"User sends a cancellation request for a Subscription Version with a status of conflict or cancels a Subscription Version that was created by or concurred to by both Service Providers."This text should be changed to:"User sends a cancellation request for a Subscription Version that was created by or concurred to by both Service Providers." | Low | IIS | Change would be made in NANC IIS 1.2 |  |  | |
| NANC 100 | | Perot Team 5/21/97 | NANC IIS 1.1, section 10 Subscription Version Status Row 1In the Version Status Interaction Description table, row #1,the description reads:"Service Provider User (or NPAC personnel acting on behalf of the Service Provider) sends a cancellation request for a Subscription Version created by that Service Provider with a status of conflict that has not been concurred by the other Service Provider."Change the text to read:"The old Service Provider User (or NPAC personnel acting on behalf of the Service Provider) sends a cancellation request for a Subscription Version created by that Service Provider with a status of conflict that has not been concurred by the other new Service Provider." | Low | IIS | Change would be made in NANC IIS 1.2 |  |  | |
| NANC 101 | | Perot Team 5/21/97 | SubscriptionVersionRemoveFromConflict Action Behavior modificationNANC IIS 1.1, section 7.7, Action DefinitionssubscriptionVersionRemoveFromConfict ACTION should be updated to state:When a subscriptionVersionRemoveFromConfict M‑ACTION is received, the subscriptionOldSP-Authorization attribute should be modified to true. | Medium | IIS | Change would be made in NANC IIS 1.2 |  |  | |
| NANC 102 | | NANC 5/23/97 | Key file exchange formats It has been requested that Lockheed Martin make the key file formats available for publication so that all NPAC vendor implementations can be the same. | High | FRS | This information format will be added in NANC FRS 1.2. |  |  | |

# Release 1.3

| **Release 1.3 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 89 | | MCI5/1/97 | Action Scoping and Filtering Support It should be indicated in the IIS that scopes and filters are not supported on actions. The behavior that is to be used rejection or ignoring of the scoping and filtering should also be indicated. | Low | IIS | This change would be made in the IIS 1.3 or 2.1MCI and Perot are to follow up on this issue and suggest the final solution. It should be documented that:  For messages sent to any object, the scope and filter will be checked to insure it is appropriate for that object class.  1. All M-Actions that relate to subscriptions are targeted to lnpsubscriptions.  2. The ONLY filters allowed by the GDMO for lnpSubscriptions are "equality" and "present" for the single attribute lnpSubscriptionsName.  3. If any one of the above M-Actions is sent to a subscriptionVerisonNPAC object you will get a "no such action" error response from that object.  4. If you send a scoped/filters M-Action that whose scope includes objects of class subscriptionVersionNPAC, you will receive an error "no such action" from each object specified by the filter. This could mean 1 for EVERY subscriptionVersion in the NPAC. |  |  | |
| NANC 103A | | Lockheed Martin Team 5/31/97 | Clock Synchronization 5 or 2 MinutesIn Chapter 5 of IIS section 5.2.1.6 states clock synchronization should be within 2 minutes, but in another section it states 5 minutes.Per the following requirement it should be 5 minutes:R7-105.2 Generalized TimeSOA to NPAC SMS interface and the NPAC SMS to Local SMS interface shall ensure that external messages received have a generalized time in the access control information within 5 minutes of the NPAC SMS system clock. | High | IIS | IIS 1.3 and or 2.1 will be updated. |  |  | |
| NANC 104 | | AT&T6/1/97 | Edits at BindIt has been requested that chapter 5 of the IIS be updated to describe the details (edits) of a SOA or LSMS initiating a bind to the NPAC SMS. Specifically the edits of the PSAP and NSAP values against the serviceProv object. | High | IIS | IIS 1.3 and 2.1 will be updated. Perot currently does not edit selector values. There was some concern raised about the fact that they do not do this edit. The service providers and Perot will follow up on this issue.  Perot will be compliant in Release 2.0. This write up will be included in the 1.3 and 2.1 IIS releases. |  |  | |
| NANC 106 | | AGCS 6/7/97 | Digital Signature DefinitionsThe IIS NANC1.1, paragraph 5.2.1.10 Signature, states that the fields specified in the LnpAccessControl are converted to either ASCII or Integer types, and then hashed/encrypted. Some of these conversions are obvious. However, it has been requested that the following information be included in the IIS.field format comments--------------- ---------- ----------------------systemId ASCIIsystemType Integer e.g. local-sms = 1userId ASCIIcmipDepartureTime ASCII format of“YYYYMMDDHHMMSS.0Z”sequenceNumber Integer | Low | IIS | This information will be added in IIS 1.3 and IIS 2.1. |  |  | |
| NANC 107 | | MCI6/9/97 | IIS Discrepancy with R5-25   R5-25 in the FRS indicates the following states will cause an error to be returned if an attempt is made to modify the Subscription Version: sending, failed, partial failure, canceled, cancel pending, old or disconnect pending upon Subscription Version modification. The IIS behavior should be updated in the 3rd paragraph to state the following “Service Providers can modify attributes associated with active, pending, or conflict subscription versions. | Medium | FRS | The FRS 1.3 and FRS 2.1 will reflect this change. |  |  | |
| NANC 111 | | NANC 6/21/97 | Validation of Association FunctionsIt has been requested that an explanation of how association functions be validated in the IIS.Currently Lockheed takes the association functions from the original bind request andstores those. Then all subsequent operations performed by that associations are then validated against that data to verify that they are 'legal'.All outbound messages from the NPAC are also validated against the association functions and if a service provider does not have the correct masking set, they will not receive the transmission. | High | IIS | This implementation needs to be discussed further and discussed with Perot and the SP’s to insure the implementation is consistent. Perot is comfortable with making this change. The IIS will be updated in 1.3 and 2.1. |  |  | |
| NANC 115 | | Lockheed Martin Team 6/26/97 | Country Code Discrepancy There is a discrepancy between the FRS (table 3-3) and the IIS (AddressInformation in the ASN.1). The FRS states that the country code is 2 characters and the IIS states that it is 20 characters. | Medium | FRS/IIS | The FRS will be modified in Release 1.3 and 2.1 to reflect 20 characters in table 3-3. |  |  | |

# Release 1.4

| **Release 1.4 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 105 | | AT&T5/31/97 | Download File FormatsAs with the key exchange file formats it has been requested that Lockheed Martin make available for publication the formats for the data download files so that both vendor implementations can be the same. | High | FRS | This information format will be added in NANC FRS 1.4 and FRS 2.3. Perot has an issue with this due to the fact that they have already implemented this functionality. The service providers have an issue with this because they want the vendor implementations to be the same. Further discussion will occur.  Lockheed will provide the file formats to Perot for evaluation. Perot will also provide their formats to Lockheed Martin.  The service providers have asked that the Lockheed implementation be adopted in the Perot regions. Service Providers will go to the LLC and the LLC will discuss final resolution with Perot. This change may cause a 1 to 2 week impact. It has been requested that a decision be reached by July 17th.  The scripts to generate the download files will be available in the last Perot software load before 10.1. |  |  | |
| NANC 110 | | NANC 6/13/97 | PGP documentation It has been requested that the PGP exchange process be documented in the FRS. | High | FRS | This information will be added in NANC FRS 1.4 and FRS 2.2 Lockheed will provide this information to Perot Systems.  Perot has reviewed the Lockheed information and has suggested the use of a product called Entrust instead of the ViaCrypt software being used in the Lockheed regions to date. This product has been presented as a more user friendly and manageable. PGP is still the algorithm of choice.  Lockheed Martin, the service providers, and their vendors will review the Entrust product. Information can be found on the web at www.entrust.com/products.htm#/amchor91873  Perot and Lockheed have indicated that implementing one product over another would not cause a date slip. It has been requested that resolution be reached by July 17th.  Decision should be reached by July 25th.  ViaCrypt has been selected by the group. |  |  | |
| NANC 112 | | NANC 6/21/97 | Key Expiration It has been requested that the following strategy should be used and documented in the FRS and IIS for expiration of keys. If the service provider determines their key is compromised they should change their own private key and list. If the NPAC determines that their key is compromised then they should change their own private key and list. The NPAC should not invalidate a service provider's key and vice versa. Per 7-111.2 a key whose usage has stopped can not be reused. | High | FRS/IIS | This implementation needs to be discussed further on the 6/27/97 call. Bob’s comments will be reviewed and further discussion will occur at the T&O meeting or at our next change management call.  This algorithm will be documented in the Release 1 IIS documentation. Bob’s approach will be addressed in another change order as a future enhancement.  Requirements will be added for section 7 of the FRS as follows:  NPAC Key Change Algorithm  NPAC SMS shall upon determination that their key has been compromised change their own private key.  Service Provider Key Marked Used/Invalid  NPAC SMS shall only mark a Service Provider key as invalid or used when the Service Provider changes their key.  Verbiage will also be placed in the IIS. |  |  | |
| NANC 123 | | Perot  7/17/97 | IIS Section 10 Flow Clarification Section 10 of NANC 1.1 shows a state transition from active to old. Transition (#21). The text implies that this is done when all local SMSs respond to the activation or disconnect. This is unclear.  The active to old occurs when a currently active subscription version is supercede by a pending subscription version due to the fact that an activate occurs the current version gets set to old. The new pending version is set to sending and then goes to active, partially failed, or old. On a disconnect the sending state occurs before the old. | Low | FRS | This change order would be implemented in FRS 1.4 and 2.2. |  |  | |

# Release 1.5

| **Release 1.5 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 51 | | 3/26/97  Lockheed Martin | OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal. | Medium | IIS / ASN.1 | Modification of the ASN.1 to reflect legal OID values.  The version of the ASN.1 containing the new OID’s will be placed out on the web 4/14/97. The IIS will be updated in the 1.1 release with the new ASN.1.  The new OIDs will begin being used by the team on 5/12/97. |  |  | |
| NANC 124 | | Perot  7/17/97 | Null Character Padding  During MOC testing, two errors relating to null padded ASN values were discovered: with respect to the BER encoding of generalized time and graphic string.  Both of these base types use the Latin-1 (ISO 8859-1) character set which does not include the null character (Rec 208). Specifically, GeneralizedTime was encoded as a length of 23 with the first 17 bytes being the actual time value (YYYYMMDDHHMMSS.0Z) and the remaining 6 bytes being nulls.  Since GeneralizedTime shows up in almost every msg. pdu, this violation restricted the number of test cases that could be run. One other case was found relating to the encoding of the zipcode field in the AddressInfo ASN.1 type. This is declared as a graphic string of up to a size of 9 bytes. The first 6 bytes were actually populated by the zipcode value and the remaining 3 bytes were again null padded. | High | IIS | It will be documented in the IIS that “The exact lengths must be specified for ASN.1 data sent across the interface. This will prevent trailing null characters that may not be accepted by some CMIP vendor products.” |  |  | |
| NANC 126 | | Nortel | Use of Time in the Due Date It has been determined that the Lockheed System uses the time if specified in the Due Date where the Perot system normalizes the time to 00:00:00.0 when the time is specified. It has been requested that the Lockheed implementation be changed to normalize the time. | Low | IIS | Lockheed will make the change in a future release (see change order NANC 149) but for release 1 the time will not be specified by vendor systems. |  |  | |
| NANC 135 | | Perot Team 8/10/97 | Download File Clarifications  The following clarifications for download files defined in FRS 1.4 and 2.2 should be added:   1. Subscription Versions in the download file are selected by an NPA-NXX begin and end range. 2. The name of the Subscription Version file is formatted NPANXX-NPANXX.DD-MM-YYYYHH24MISS, the NPANXX-NPANXX values map to the selection criteria and the time stamp maps to the current time. 3. The download reason in all download files is always set to new. 4. There are no selection criteria for the NPA-NXX, LRN or SPID down load files. All data is included. 5. The name of the Service Provider download file is SPID.DD-MM-YYYYHH24MISS, where the SPID portion is the literal string ‘SPID’. 6. The name of the NPA-NXX download file is NPA-NXX.DD-MM-YYYYHH24MISS, where the NPA-NXX portion is the literal string ‘NPA-NXX’. 7. The name of the LRN download file is LRN.DD-MM-YYYYHH24MISS, where the LRN portion is the literal string ‘LRN’. | Low | FRS | FRS would be updated in the next release.  Pending review. There is also a file name in the example with a month of 13 that should be corrected.  Moved to closed. Nortel agrees. | N/A | N/A | |
| NANC 136 | | Bellcore 8/10/97 | Download File Carriage Return Clarification  The following clarifications should be made to the download file explanation in the FRS 1.4 and 2.2:   1. The sample NPA-NXX and LRN files should have a carriage return (CR) after each record. 2. The last record in each file should not be treated differently from any other record. It should be followed with a (CR). 3. The CR value is ASCII 13. | Low | FRS | FRS would be updated in the next release.  Tekelec raised the use of CR as an issue. It has been proposed that the new line character (ASCII 0A) be used since it is recognized by Unix and C standard procedures. The group closed this item due to the fact that when the file is FTP-ed, not in binary mode, the CR would be converted to new line. | N/A | N/A | |
| NANC 137 | | Lockheed Martin Team 8/13/97 | Disconnect Active SV Behavior Clarification We have a conflict between the FRS and the GDMO dealing with disconnecting active subscription versions. In the FRS, requirement R5-64.1 states that we shall not allow a disconnect of an active SV if there is a "pending" SV for that same TN until that "pending" SV is cancelled.  In the GDMO in IIS 1.2, section 5.0, Action Behaviors, states “there is a pending SV and an active SV, and the currentSP has not authorized the port, the active one will be disconnected, and the pending one will go into conflict. If the SP has not authorized the port, the disconnect will fail”  The GDMO should be corrected to state, “if there is a pending SV and an active SV, the disconnect of the active SV will fail.” | Low | IIS | IIS would be updated in the next release.  Pending review.  Move to closed. |  |  | |
| NANC 140 | | Sprint  8/18/97 | Concurrence Timer Values The requirements (R5-21.3 and R5-23.3) state that the initial and final concurrence values should have default values of 9 hours. However, the system tunable table (Appendix C) states that the default is 18 hours. The table should be updated. | Low | FRS | The FRS should be updated in the next release.  Closed for FRS release 1.5. |  |  | |
| NANC 141 | | Lockheed Martin Team  8/18/97 | Cancel of Disconnect Pending The requirement R5-71.10 states “NPAC SMS shall set the subscription version status to Active upon receiving a cancellation for a subscription version with a status of disconnect pending.”. However, there are requirements R5-3.10, R5-3.11, and R5-3.12 that define a tunable parameter for retention of canceled versions with a pre-cancellation status of disconnect pending. This tunable is not needed and should be removed. The requirements R5-3.10, R5-3.11, R5-3.12 and the reference to the tunable in the table in appendix C should be removed. | Medium | FRS | The FRS should be updated in the next release.  Closed for FRS release 1.5. |  |  | |

# Release 1.6

| **Release 1.6 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 107 | | MCI6/9/97 | IIS Discrepancy with R5-25   R5-25 in the FRS indicates the following states will cause an error to be returned if an attempt is made to modify the Subscription Version: sending, failed, partial failure, canceled, cancel pending, old or disconnect pending upon Subscription Version modification. The IIS behavior should be updated in the 3rd paragraph to state the following “Service Providers can modify attributes associated with active, pending, or conflict subscription versions. | Medium | FRS | The FRS 1.3 and FRS 2.1 will reflect this change.  RE-OPENED: We missed a reference in the IIS that should be changed as well in flow 6.5.2 the SV Modification flow has a sentence in the overview that still reads that a Service Provider can modify a disconnect-pending subscription version. The disconnect pending status should be removed from the sentence**.**  CLOSED – The IIS will be updated in the 1.6 release.  Previously addressed in Rel. 1.3 |  |  | |
| NANC 133 | | ESI  8/5/97 | Audit Object Definition The IIS contradicts it self for the audit object. The subscriptionAuditBehavior states that "All attributes must be specified on create with the exception of the subscriptionAuditAttributeList and the subscriptionAuditTN-ActivationRange". If this is the case, then the subscriptionAuditAttributeList and subscriptionAuditTN-ActivationRange must have default values.  The behavior should be changed to read: "All attributes must be specified on create with the exception of subscriptionAuditTN-ActivationRange if an audit is not being done on an activation data range.” | Low | IIS | The IIS would be updated.  Moved to release 1 due to incompatibilities in vendor implementation.  Awaiting response from Perot/Nortel on 9/26.  A suggestion is to put the keyword OPTIONAL after the subscriptionAuditTN-Activation range.  A GDMO change will be implemented in Release 1. | Medium Low | Medium Low | |
| NANC 134 | | AT&T  8/10/97 | Disconnect Action Behavior Discrepancies  Disconnect Action GDMO is currently in conflict with requirements as follows: “If a delete request fails for the disconnect subscription version after the retry periods have expired, the version status will be set to failed or partially failed based on if the delete failed in all or some of the Local SMSs respectively. The current active version will remain active and an error will be returned for the action.” It should be reworded to state: “If a delete request fails for the disconnect subscription version after the retry periods have expired, the version status will be set to active if all LSMS’s fail or old if one or more but not all LSMS’s fail.”  Table and Flow Graph in the FRS and IIS should also be updated as follows:  Sending to Old -NPAC SMS automatically sets a sending Subscription Version to old after a disconnect or “porting to original” port to all Local SMS successfully completes. Disconnects that fail to one or more and not all will also be set to old.  Sending to Active-   1. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version activation is successful in all of the Local SMSs. 2. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version modification is successfully broadcast to any of the Local SMSs. 3. NPAC SMS automatically sets a sending Subscription Version to active after a failure to all Local SMSs on a disconnect. | Low | FRS/IIS | Currently in the Nortel/Perot software, the version status will be set to  Failed or partially failed based on if the create failed in all or some of the Local SMSs respectively. The NEW request is to set it to active if all LSMSs fail or OLD if one or more but not all LSMSs fail.  This rewording will require that the Nortel SW be modified to change the required results of the fail / partial fail to fail / OLD.  Nortel agrees that this change needs to be done, and agrees with the wording as is stated in the change order.  CLOSED. Nortel has implemented this change. To be documented in 1.7. | N/A | N/A | |
| NANC 143 | | AGCS  8/27/97 | Subscription Version M-Delete to LSMS When a telephone number is being ported, the NPAC currently sends a request to the LSMS to create a new subscription version object. The LSMS is expected to search in its database to see if any existing subscription version object has the same telephone number. If such an object is found, the LSMS is expected to delete the existing object. This requirement is not documented in the FRS or IIS. | Low | IIS | The suggested solution is to have the IIS adhere to the TMN specification. The NPAC should issue an M-Delete message for an existing object before creating the new object. A variation would be for the NPAC to issue an M-Set instead of an M-Create or M-Action message.  If neither of the above solutions is possible, the deviation from the standard specification should be explicitly called out in the FRS or IIS.  A change order will be added to for a future release to add the M-DELETE. The M-DELETE was not implemented due to some LSMS vendors/SPs wanting to manage their own history.  The wording to indicate deviation from standards will be put in the IIS.  This change order has been added to the NANC 1.6 documents. |  |  | |
| NANC 144 | | AGCS 8/27/97 | Filter implementation in the NPAC SMS  FRS requirements RR3-5 and RR3-6 state that filters will be used for subscription broadcast. These requirements don't include subscription queries (audit), mass updates and lnpDownload requests. Lockheed Martin has interpreted these requirements to include applying the filter on subscription queries (audit), lnpDownload, and mass updates. Perot has interpreted the requirements as they are written. The only filter subscription broadcast.  New Requirement 1 – Mass Update Filter Usage  NPAC SMS shall for a mass update request, only send updates for subscription versions that are not filtered on the Local SMS.  New Requirement 2 – Subscription Version Resynchronization Filter Usage  NPAC SMS shall for a Subscription Version Resynchronization request only send subscription versions that are not filtered on the Local SMS.  R8-16.1 is already in place for Release 1 to filter for audits. | Medium | FRS | Nortel follows the FRS, which calls for the filters to be used for subscription broadcast. The changes needed to include applying the filter on subscription queries and mass updates will cause coding changes. The effort to do the work would be medium to medium/high with a medium risk. The impact is that M-SET errors will occur for mass updates from the LSMS to the NPAC, audits would potentially create SV on an LSMS that the LSMS is not interested in and LNP download would send SVs that the LSMS is not interested in and would potentially create as a result of the lnpDownload. Closed for release 1. Perot will schedule change in their regions. | Medium High |  | |
| NANC 152 | | Bellcore  9/4/97 | Audit Number of TNs NotificationThe IIS flows currently do not show the sending out of an attributeValueChange notification after an audit object creation for the numberOfTNs (to be audited). The GDMO indicates that the notification will be sent. | Low | IIS | This issue was raised in the Lockheed regions. Lockheed does not currently emit the attribute value change notification for numberOfTns. However, the attribute can be queried. Perot implementation to be investigated.  The flow or the GDMO behavior must be changed.  The GDMO will be changed to remove the statement that the attribute value change notification will be sent for numberOfTns.  Perot and Lockheed concur.  This change order has been added to the NANC 1.6 documents. |  |  | |
| NANC 155 | | 8/5/97  AT&T | End User Location Type and Value Definition  In the NANC IIS V1.2 the following ASN.1 definitions are found:  EndUserLocationType ::= CHOICE {  value [0] NumberString(SIZE2)),  no-value-needed [1] NULL  }  EndUserLocationValue ::= CHOICE {  value [0] NumberString(SIZE(1..12)),  no-value-needed [1] NULL  }  However, in the FRS V1.2 the following is found in Table 3-5:  End User Location Type C(2)  End User Location Value C(12)  where "C" is defined as "Character or Alphanumeric Strings". | Low | FRS | At, at this time since these fields are not being used this change order will sync the FRS with the IIS. The values in the table will be changed to N(2) and N(12) from C(2) to C(12). In the long term these fields will be fixed in change order NANC 129.  This change order has been added to the NANC 1.6 documents**.** |  |  | |
| NANC 157 | | Lockheed Martin Team 9/10/97 | Key exchange interval default valuePer requirement R7-111.4 the NPAC SMS shall change the key used between the NPAC and the Service Provider after one year of usage. The default value for the key exchange states 7 days. These values should be the same. Laundry list of standards proposed:   1. Service Providers may use a single keylist across multiple regions. This applies only to the keylist that the Service Provider generates. 2. NPAC keys to be changed once a week within the key list. 3. Keylists that are exhausted prior to years-end will be replaced with newly generated keylists with keys equal in length to the keys in the exhausted keylist. 4. New keylists generated once a year augmented with strengthened keys. Starting out with an initial keylength of 600 bit and strengthening in increments of 24 bits (per year). 5. Naming convention for keylists to be as follows:   FROM | TO | REGION | KEYLIST #  XX XXX XX X  e.g. NP ATT WC 8    There was a concern that this would allow for only 9 keylists to be generated for each SP (per region). However, what I propose that in the unlikely event that more than 9 keylists are generated for an SP (per region) we move to alphas as well (i.e. 1-9 and then a-z). This would allow for a total of 35 keylist to be generated (if we generate more keylists than this for a region something is wrong). | Low | FRS | The default value in requirement R7-111.4 should be changed to 365 days.  The key change occurring once a week is an NPAC only requirement.  The standards proposed have been accepted with the exception of the file name. Which will be defined as indicated below.  The key file will be <from company SPID >. <to company SPID>X. A file sent from NPAC will be <NPAC Region SPID>.<SPID>X. A file sent from a service provider will be <SPID>.<NPAC Region SPID>X. Where SPID is a 4 digit number (e.g. “0715”). The NPAC SPID will be those defined in the IIS. X will be the KEYLIST # as described in the original proposal.  Closed for release 1. |  |  | |
| NANC 165 | | Bellcore 9/29/97 | Flow 6.5.5.2 Correction Step g of flow 6.5.5.2 the diagram reflects an incorrect non-existent notification. The notification in the diagram should match the notification stated in step g. | Low | IIS | The flow will be corrected in the IIS to reflect the proper notification in the flow diagram. |  |  | |
| NANC 166 | | Nortel/Perot Team  9/29/97 | Flow 6.5.4.1 Modification  The flow 6.5.4.1 shows the status going to disconnect-pending for an immediate disconnects. In the GDMO, for an immediate disconnect (without specifying effective release date), we go to sending directly. | Low | IIS | The flow will be corrected in the IIS to indicate the status change directly to sending.  The state change diagram must also be reviewed. |  |  | |

# Release 1.7

| **Release 1.7 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 130 | | ESI  8/5/97 | Notification to Old SP on Subsequent Port  The old service provider is getting the activate notification after the initial activate but when that TN is ported the next time to another service provider the old service provider does not get the status notification that the previously active subscription version is going to old.  Should this notification be sent? In the current process flows and requirements there is no requirement to notify the old service provider on a previously ported number when it ports again. | RE-OPENED DUE to CHANGE ORDER NANC 142 | FRS/ IIS | The group initially felt that this change order should not be implemented. Research is to be done to determine if there really is a strong need for this functionality in SOA systems.  The submitter withdrew this change request. Closed Pending Deletion  Re-opened and Closed for release 1. Both vendors have implemented this functionality.  Closed 11-14-97 both Vendors have not implemented this functionality so it is closed NO ACTION. Notification will not be implemented. |  |  | |
| NANC 142 | | NANC  8/18/97 | Port to Original Flow Clarifications There is currently not a clear definition of the flow in the IIS for port to original. What is defined in the IIS could never be implemented and work. The issue to date is what notification on what subscription versions should be sent to the old and SOA systems. NPAC and SOA vendor implementations conflict. | High | FRS/IIS | Proposed flows for the IIS have been sent out to the group for review.  Perot and Lockheed are reviewing. The notifications seem to be the biggest issue. The exact processing order of events may also be an issue. SOA vendors have also been asked to review the proposed flows.  Awaiting the assessment from SOA/NPAC vendors.  It was decided to use failed and partially failed like other porting requests instead of active and old like a disconnect.  It was decide that we DO WANT NOTIFICATIONS for SV1. For LSSP port we do emit notifications on the second port.  (continued) |  |  | |
| NANC 142 (cont.) | |  |  |  |  | Notifications would occur off of SV1 for status change of SV1.  New version of flows for vendors to evaluate and revisit NANC 130.  New state transition would be needed to allow the transition of SV1 from old to sending during a re-send.  The majority of the vendors are awaiting the answer to NANC 130 before concurrence. They would like to see similar behavior to other ports with the notification to the old SP. If the notification is sent to the old SP in NANC 130 then this issue will be closed with notifications being sent off of SV1.  This change order has been closed with change order NANC 130. |  |  | |
| NANC 161 | | NANC 9/19/97 | Subsequent Port FlowA flow is needed in the IIS to show a subsequent port (i.e. not an initial port). A flow should be added to the IIS. | Low | IIS | The flow will be added to the IIS. |  |  | |
| NANC 163 | | Lockheed Martin Regions 9/25/97 | NPA Split Implementation An issue has been raised in Illinois relating to NPA Splits that may effect ALL LSMS VENDORS!  It was found that (In the Lockheed implementation):   1. the new NPA-NXX involved in a split must not exist in the NPAC in the current NPAC implementation. 2. the new NPA-NXX is NOT broadcast by the NPAC at any time 3. The NPAC changes the existing NPA-NXX to the new NPA-NXX (therefore keeping the same version id as the old for the new. Therefore, not causing any delete for the old NPA-NXX in the Local SMS.   The desired behavior is now defined in a separate document being reviewed by the team on the public web site. | High | FRS/IIS | Requirements have been finalized in the NANC T&0 meeting on 10/9/1997.  Perot first split for Bell South Permissive Dialing will start 3/1. Bell South will investigate. The Lockheed regions first split permissive dialing period starts 12/13.  New requirements sent in e-mail need to be reviewed.  Closed 11/7/97.  Requirements are available on the web. |  |  | |
| NANC 164 | | Perot  9/25/97 | Duplicate NPA-NXX’s and LRN’s  It was indicated that in some rare cases, there could be multiple owners of an NPA-NXX... (through sub-leasing etc). The Perot implementation does not validate duplicate NPA-NXX’s. The Lockheed implementation prevents this from happening due to port to original processing.  It has been requested that a clarifying statement be documented for both NPA-NXX and LRN duplication validation.  The following requirements should be added:  RR4-5 Duplicate NPA-NXX Validation  NPAC SMS shall validate upon request to add an NPA-NXX for a service provider that the NPA-NXX does not exist for any service provider in the region.  RR4-6 Duplicate NPA-NXX Validation – Error Processing  NPAC SMS shall upon finding that an NPA-NXX already exists for a service provider in a region will reject a request to add NPA-NXX for a service provider and report an error to the user.  (continued) |  | FRS | Functionality stated for the vendors’ needs to be validated and desired behavior needs to be discussed.  Only one use of an NPA-NXX in a region is allowed.  Only one LRN in a region is allowed. (LRN and NPA-NXX duplicates are not allowed.)  Lockheed does prevent duplicate LRN’s for a service provider. Perot does not.  Closed 11/7/97. |  |  | |
| NANC 164 (cont.) | |  | RR4-7 Duplicate LRN Validation  NPAC SMS shall validate that upon request to add an LRN added for a service provider that the LRN does not exist for any service provider in the region.  RR4-8 Duplicate LRN Validation – Error Processing  NPAC SMS shall upon finding that an LRN already exists for a service provider in a region will reject a request to add LRN for a service provider and report an error to the user. |  |  |  |  |  | |
| NANC 170 | | Perot Team 11/1/1997 | ActivationTS vs BroadcastTS in IIS Flows The Activation Request Time Stamp is the time the activation was received from the new Service Provider and this is what is downloaded to the LSMS as the Activation Time Stamp. The activation broadcast date is what is set at the beginning of the broadcast and the activation broadcast time stamp complete is what would be set after all LSMS systems have responded.  The IIS for object 20 Subscription Version states: The subscriptionActivationTimeStamp is the time when the subscription version was activated by the new service provider.  The following changes should be made in the flows to properly reflect the behavior of the NPAC SMS:   1. Steps e and f be removed from 6.5.1.6 2. Steps e and f be removed from 6.5.1.9 3. Steps b and c have the name subscriptionVersionBroadcast changed to 4. Subscription Version activation timestamp in flow 6.5.1.5. 5. Steps i and j be added to flow 6.5.1.5 to show the subscription version broadcast timestamp being set on the NPAC after the status is set to sending and the broadcast begins. |  | IIS | Update the IIS flows.  Closed 11/7/97. |  |  | |
| NANC 171 | | Bellcore 11/1/97 | Audit Response Error Code Clarification How the audit status is set should be documented in the IIS. The audit status should be returned with the following priority on the return values:  highest - failed due to discrepancies  high - failed on local sms  low - no audit performed  lowest - success  A higher priority status condition will override a lower. For example: any error will override a 'success' status, 'failed on local sms' will override a 'no audit performed', and 'failed due to discrepancies' will override all other status conditions. | Low | IIS/GDMO | This behavior should be documented in the IIS. From e-mail received by both vendors when Bellcore raised questions, it is believed that the behavior is the same in their NPAC SMS’s. This should be verified and the change order should be closed.  Closed 11/7/97. |  |  | |
| NANC 172 | | Perot 11/5/97 | LSMS accepting downloads in the Flows The flows in the IIS do not mention that filtering may occur on downloads to the LSMS’s for subscription versions. They simply state that downloads occur to all LSMS’s. It has been suggested that the words “all LSMS’s” be changed top “all LSMS’s accepting downloads for the NPA-NXX of the subscription version”. | Low | IIS | The IIS will be updated. Closed 11/7/97. |  |  | |

# Release 1.8

| **Release 1.8 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 173 | | Perot Team 11/15/97 | Flow 6.5.2.1 Modification  A discrepancy between the FRS and the IIS. FRS 1.6 requirements R5-26 and R5-32 show that when modifying based on TN, the status must also be provided. In IIS 1.6 call flow 6.5.2.1 note a fails to require status. | Low | IIS | It is recommended that the wording in IIS 6.5.2.1 be changed so that the IIS wording clearly states that the status is required on M\_Action modify by TN.  Nortel agrees that this change is needed and will comply if the service provider complies and sends the status. However, if the service provider fails to send the status along with the ported telephone number, Nortel may fail to reject the message.  The only situation where the Perot NPAC behavior would be an issue is on a modify. Only two states can be modified, pending and active. If a request comes w/o a status it is assumed to be a modify for the active SV, if there is no active then a modify of the pending SV is assumed. In release 2 there is a change order, NANC 108 that will require that the SP’s provide the status for modify requests. This change order will be closed and will serve to document the current behavior prior to release 2. |  |  | |
| NANC 176 | | Bell South  11/15/97 | Modification of Status Change Cause Code  A discrepancy was found between the FRS 1.6r equirementsR5-27.3, R5-29.5, and IIS 1.6 flow 6.5.2.4.  Step a in flow 6.5.2.4 states the following:  a. Action is taken by a service provider to modify the subscriptionVersion. The old service provider can only update the following attributes:  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  We should add the status change cause code should be added as an attribute that can be modified per the FRS requirements. | Medium | IIS | The IIS flow will be updated as well as flow 6.5.2.3. A note will be added to state that the cause code can only be set when the subscriptionOldSP –Authorization is set to FALSE. |  |  | |
| NANC 182 | | Perot Team 1/7/98 | NPA-NXX effective date validation  Both NPAC vendors currently allow the effective date for an NPA-NXX to be any date, past, present, or future. It has been requested that this be documented in the FRS. | Low | FRS | Suggested requirement to be added will be RX3-1.1.1 Service Provider NPA-NXX Effective Data Validation - NPAC SMS shall allow the effective date for a service provider NPA-NXX to be a past, present, or future date.  The requirement will be documented in the FRS. |  |  | |
| NANC 190 | | Nortel 1/19/1998 | NPA Split Requirement 33 Interpretation Requirement #33 - NPAC SMS shall start NPA Split Processing at 00:01 hours on the start date of permissive dialing.  Nortel interpreted this requirement to mean that processing started at the beginning of permissive started at 00:01 LCL time to set up the SVs for the start of permissive dialing and that it might run for some finite amount of time. The SP in a Nortel/Perot meeting did agree that the requirement should be changed to stipulate that any processing done to set up for permissive dialing should be completed so that a number dialed at 00:02 LCL time on the day of start of permissive dialing. Further they agreed that any audits run after 00:02 LLCL time on the start of permissive dialing should be able to be run to check that the LSMSs are in sync with the NPAC.  It has been requested that requirement 33 be reworded to more clearly state the desired behavior as follows:  Requirement #33 – NPA Split - Start Time  The NPAC SMS shall complete any needed NPA split set up processing or activities by 00:01 CST time on the start date of permissive dialing. | Medium | FRS | This requirement and requirements 34 and 35 would be modified appropriately. |  |  | |

# Release 1.9

| **Release 1.9 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** |
| ILL 181 | | Illinois  2/24/97 | Key’s for EACH Service Provider Interface  Requirement R7-111.6 in FRS 0.1 states that “key initiation [is] to be requested on a per Service Provider basis”. This has been interpreted that one key be supported per Service Provider. The NPAC SMS under this requirement would expect one key from a key list for all associations for a Service Provider regardless of whether it is a SOA or LSMS association. This means that the LSMS and SOA systems would have to coordinate with one another to make a key change.  It has been requested that keys be treated independently at the presentation layer for an association. By using the presentation layer (or by PSAP address) support of a key, SOAs and LSMS systems could have unique keys. In addition, if an LSMS, for instance, is made up of two processes, one supporting network subscription data download and the other supporting query; they could have unique keys. | Re-opened | FRS / IIS | Changes were made in the 1.0 release of the IIS and FRS.  RE-OPENED: For reference for NANC 154.  Closed with NANC 154 and NANC 104 for release 1. To be documented in an IIS release when the information to be put in the document is approved.  Additional information has been provided to the team for discussion. ESI, AT&T, and Bellcore do not have an issue with the current approach. AT&T has a issue with the Nortel proposed approach. ESI and Bellcore have also indicated that they may have an issue and are currently reviewing the information to provide input to the group on the 1/23/98 call.  AT&T write up of the current implementation will be documented in the IIS.  This change order was previously addressed in Rel. 1.0. |  |  |
| NANC 154 | | AT&T  9/8/97 | Implementation of Key Validation The interpretation/implementation of ILL 181 is different. This change order was opened to futher clarify ILL 181 rather than re-opening the existing change order. However, ILL 181 has been re-opened and moved to this list for reference purposes.  NPAC should use the same key with the SOA/LSMS associations with same PSEL. | **High** | **FRS/IIS-?** | Perot to investigate.  No impact on Lockheed.  Perot has determined that this is a large effort for Release 1.  Other SOA vendors to give input on impact if not implemented by Perot. Perot also to identify if a work around is available in the Release 1 time frame.  AT&T and Perot are working this issue. Bellcore may also have an issue.  Closed with NANC 154 and NANC 104 for release 1. Perot to schedule in their regions. To be documented in an IIS release when the information to be put in the document is approved. |  |  |
| NANC 188 | | Lockheed Martin Team  1/19/1998 | Mass Update Flow 6.7.4 Modification  The IIS states that an attributeValueChange notification will be sent to the current service provider SOA during a mass update. The only notification that would be attributeStatusValueChange to notify the SOA of the status going from active to sending and back to active. Steps e and f should be modified to reflect this change in flow 6.7.4 | Low | IIS | Documentation change only. Both NPAC Vendors view this change as a documentation change due to that in their implementations they only send attributeStatusValueChanges to the owner of the TN being updated in the mass update. |  |  |
| NANC 194 | | Lockheed Martin Team 1/29/1998 | Retry Tunables without Requirements in FRSIIS 1.7 section 5.3.3.1 discusses the tunable number of retries at a tunable interval for retries for all failed SOA and LSMS messages sent from the NPAC SMS. These tunable are in the FRS tunable table in the FRS as LSMS retry attempts and SOA retry attempts. No requirements reference these tunables SOA and LSMS retry intervals. There are activate, modify active, and disconnect retry tunables with corresponding requirements (Ref R5-68.X, R5-60.X, and RR5-41.X) that are identified in the FRS tunable table. Req 1 LSMS Retry Attempts – Tunable Parameter - NPAC SMS shall provide a Retry Attempts tunable parameter which defines the number of times a message to a Local SMS which has not acknowledged receipt of the message. Req 2 LSMS Retry Interval – Tunable Parameter - NPAC SMS shall provide a LSMS Retry Interval tunable parameter, which defines the delay between sending a message to a Local SMS that has not acknowledged receipt of the activation request. (continued) | Low | FRS | It is suggested that specific requirements be created to explicitly define these tunables in the FRS.  The LSMS requirements will be duplicated for the SOA retry attempts. |  |  |
| NANC 194 (cont.) | |  | Req 3 Subscription Activation Retry Attempts - Tunable Parameter Modification - NPAC SMS shall allow the NPAC SMS Administrator to modify LSMS Retry Attempts tunable parameter.  Req 4 Subscription Activation Retry Interval – Tunable Parameter Modification - NPAC SMS shall allow the NPAC SMS Administrator to modify the LSMS Retry Interval tunable parameter.  Req 5 Subscription Activation Retry Attempts – Tunable Parameter Default - NPAC SMS shall default the LSMS Retry Attempts tunable parameter to 3 times.  Req 6 Subscription Activation Retry Interval – Tunable Parameter Default - NPAC SMS shall default the LSMS Retry Interval tunable parameter to 2 minutes.  Req 7 Subscription Version Activation Failure Retry - NPAC SMS shall resend a message the LSMS Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of the message once the LSMS Retry Interval tunable parameter expires. |  |  |  |  |  |
| NANC 196 | | Perot Team 1/30/1998 | Activation Timestamp value sent to the LSMS An issue was raised about when the activation timestamp should be set before it is sent to the LSMS. Conflicting references have been identified. | Low | IIS | It was consensus of the group that the activation time stamp should be set before the subscription version is sent to the LSMS. This timestamp is the time the activation request was received by the new service provider. This is done so that all LSMS’ have the same timestamp in their database that matches the timestamp in the NPAC database. The following references in the IIS will be modified as follows:  The definition in the attribute table in section 4 for subscriptionActivationTimeStamp will have the first sentence reworded as follows: “This attribute is used to specify the date and time that the new service provider activation request was received by the NPAC SMS.”  Object 21 in the GDMO for subscriptionVersion will have the 4th paragraph from the bottom of the behavior modified to state :  “The subscriptionActivationTimeStamp is set by the NPANC SMS as the current date and time when the subscriptionVersion activation request is received from the new service provider”.  (continued) |  |  |
| NANC 196 (cont.) | |  |  |  |  | The behavior for the attribute definition for subscriptionActivationTimeStamp will be modified to state: “This attribute is set by the NPAC SMS as the time and date that the subscription version activation request was received from the new service provider.” |  |  |

# Release 1.10

| **Release 1.10 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 133 | | ESI  8/5/97 | Audit Object Definition The IIS contradicts it self for the audit object. The subscriptionAuditBehavior states that "All attributes must be specified on create with the exception of the subscriptionAuditAttributeList and the subscriptionAuditTN-ActivationRange". If this is the case, then the subscriptionAuditAttributeList and subscriptionAuditTN-ActivationRange must have default values.  The behavior should be changed to read: "All attributes must be specified on create with the exception of subscriptionAuditTN-ActivationRange if an audit is not being done on an activation data range.” | Low | IIS | The IIS would be updated.  Moved to release 1 due to incompatibilities in vendor implementation. Awaiting response from Perot/Nortel on 9/26.  A suggestion is to put the keyword OPTIONAL after the subscriptionAuditTN-Activation range.  A GDMO change will be implemented in Release 1.  REOPENED: The GDMO/ASN.1 change did not get made. The subscriptionAuditTN-Activation range should be added to a conditional package. Addition of the keyword optional is not supported in GMDO definitions.  Current work around is that the SOAs do not send the attribute (note that this is not standards compliant) The use of a conditional package is backward compatible. Closed 4/16/1998. | Medium Low | Medium Low | |
| NANC 197 | | NANC T&O 2/13/98 | IIS Clarification for Congestion Handling It has been requested that the IIS document how congestion will be handled over the SOA and LSMS interfaces. The Lockheed NPAC can accept a configurable number of messages (set to 100) per association before returning congestion. Is there an expectation on the SOA and LSMS systems? Exact references to standards will be identified and documented in the IIS. | Low | IIS | A write up of the NPAC behavior and DSET product behavior has been circulated for review.  Information yet to be obtained from DSET.  DSET has committed a resource to be available for the 4/24/1998 call so that this issue can be resolved.  From the discussion on the 4/24 call. The following action items were created:  CMA to update IIS write-up.  DSET to update DSET information previously provided to T&O.  Lockheed to provide documentation specific to their implementation.  Closed on 5/13/1998 |  |  | |
| NANC 209 | | Lockheed Martin Team 3/30/98 | Documentation of NPA Split Query Behavior When a query is done using an old NPA involved in a split Lockheed returns the new NPA for single TN requests and for a range of stations only (same NPA-NXX). A range query that varies the NPA will return only what was queried.  RN3-2 States "NPAC SMS shall accept both the old and new NPAs during PDP, but will only respond and download with the new NPA-NXX."  It has been requested that requirements in the FRS be added to clarify this behavior.  The requirement RN3-2 would be modified as follows: "NPAC SMS shall accept both the old and new NPAs during PDP, but will only respond and download with the new NPA-NXX except for query requests that span NPAs." | Low | FRS | Lockheed input as to why they implemented behavior and vendor input needed. NPAC SMS implementation was done to prevent performance impacts introduced by complex query filter processing. SOA/LSMS vendors need to evaluate if they use this query and if this is the behavior is acceptable.  A work around to this problem would be to request both old and new NPA in a query involving multiple NPAs.  Tekelec, ESI, ATCS, AT&T, MCI, and BellSouth have indicated that are not impacted this behavior. The behavior for this type of query would be documented in the FRS. |  |  | |
| NANC 211 | | ESI  3/30/98 | Flow Modifications for Failed SP List Updates The following NPAC behavior is not reflected in any of the IIS flows. It has been requested that the IIS be updated to show this behavior:  During an audit, if an SP is in a failed list gets updated due to an audit, the failed SP list is updated and notifications are sent to the old and new SP for the SV.  During a resync, if an SP is in a failed list and it gets updated due to a resync, the failed SP list is updated and notifications are sent to the old and new service providers.  The status change diagrams in the IIS and FRS would also have to be updated to show the state transitions were the sending state does not occur for the SV when the status is changed. For instance in an audit the TN status would change from partially failed to active without going to sending if all LSMS’s that had previously failed were corrected by the audit. | Low | IIS/FRS | Modified IIS and status value change flow in section 5 of the FRS and section 10 of the IIS needs to be updated.  Closed on 5/13/1998. |  |  | |
| NANC 215 | | PacBell 4/24/1998 | Immediate Disconnects - Section 6.5.4 of the IIS In the NPAC SMS, three status change notifications are sent to the SOA. The first is sent when the status is set to DISCONNECT PENDING, the second sent after the status is set to SENDING, and the third is sent after the disconnect when the status is set to OLD.  The first status change notification for disconnect pending is not documented in the IIS. | Low | IIS | Document the first notification in the IIS flow 6.5.4 in IIS 1.9. |  |  | |

# Release 2.0.0

| **Release 2.0.0 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| ILL 75 | | Forum Meeting 11/19/96 | Validate Due Date is > than the NPA-NXX effect date upon Pending Version Creation  A request has been made for additional requirements for due date validation upon pending version creation for an NPA-NXX that is not in effect. The due date would not be considered valid if it was not greater than the NPA-NXX effective date. This change would keep activations of a pending subscription version from occurring before the effective date of an NPA-NXX. | Medium High | FRS and NPAC SMS functionality | This is in Release 2 (SOW 9).  Jan 99 LNPAWG (Atlanta), the documentation wording needs to be changed from:  "...greater than..."  to  "...greater than, or equal to, ..."  when comparing an SV's due date to the NPA-NXX Effective Date. | Low | Low | |
| ILL 79 | | Forum Meeting  11/19/96 | Notification Recovery  Recovery of notifications is not possible in the current implementation of the IIS. There are several notifications that should be recoverable. These notifications are:   1. subscriptionVersionNewNPA-NXX 2. subscriptionVersionDonorSP-CustomerDisconnectDate | High | IIS | Detailed requirements have been developed.  NANC 145 and NANC 158 have been combined into this change order.  This is in Release 2 (SOW 9). |  |  | |
| ILL 131 | | MCI  12/16/96 | Creation of old SV for Every Change  The NPAC SMS should create an old subscription version for each change made to an active TN subscription version, regardless of how that change is made. That is, even for events such as an NPA split, an old SV should be  created to preserve the SV containing the former NPA. Requirements should be added to the FRS to insure this is clear. | Medium | FRS | Detailed requirements have been developed.  RE-OPENED – A question was raised on whether this functionality was really implemented in release 1 by the vendors. Perot has not implemented this change order in Release 1. Lockheed will implement this change in their October release. The requirement is in the FRS.  This change order will be re-applied to the Release 2 FRS document. Perot will provide this functionality in Release 2.  This is in Release 2 (SOW 9). |  |  | |
| NANC 48 | | NANC  meeting 3/24/97 | Multiple SPIDs per Service Provider SOA  It has been requested that multiple Service Provider Ids be associated with a single service provider SOA within an NPAC SMS. This issue is currently being investigated and proposed requirements are being developed. | Medium Low | FRS / IIS / ASN.1 | This is in Release 2 (SOW 9). | Medium | Medium | |
| NANC 68 | | Illinois | Mass Update Requirements Modification The current requirements R3-7.1 and R3-7.2 for Mass Update do not reflect the business need and should be replaced with the following:  R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions  NPAC SMS shall allow NPAC personnel to select Subscription Versions for mass update which match a user defined combination of any of the following: TN, TN range, Service Provider ID, LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value.  R3-7.2 Administer Mass updated on one or more selected Subscription Versions  NPAC SMS shall allow NPAC personnel to specify a mass update action to be applied against all Subscription Versions selected (except for Subscription Versions with a status of old, partial failure, sending, or canceled) for LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value. | High | FRS | ILL 186 has been combined into this change order. This is in Release 2 (SOW 9). |  |  | |
| NANC 77 | | AT&T  4/16/97 | TimeRange ASN.1 Definition  The startTime and stopTime of TimeRange are defined as OPTIONAL. Since all requests involving TimeRange will include startTime and stopTime, the OPTIONAL is not needed and should be removed. | Low | IIS/ASN.1 | The IIS will be updated. This change order has not been grouped.  This is in Release 2 (SOW 9). | Low | Low | |
| NANC  83 | | Illinois Meeting 5/1/97 | NPAC Time Synchronization It has been requested that a requirement be added to the FRS to require that the NPAC SMS systems use NTP to synchronize from a Stratum 1 host. This would insure that all NPAC SMS vendors are synchronized on their times. The requirement would be as follows:  NPAC Clock Synchronization  NPAC SMS shall synchronize its system clock using NTP to a Stratum 1 host. | Low | FRS | Perot provided the M&P for at minimum a weekly synchronization of their hosts from a Stratum 1 host for release 1. They are investigating dial-up to a Stratum one host. Stratum one may not be available until release 2. It has been requested that Perot provide this functionality sooner if possible. |  |  | |
| NANC 108 | | NANC 6/8/97 | IIS Discrepancy with R5-26Requirement R5-26 in the FRS 1.2 states that the status is required for the modification of a subscription version. The IIS has this field as optional. A change should be made to the IIS ASN.1 for ModifyAction to remove OPTIONAL tag on the version-status field. |  | IIS/ASN.1 | This is in Release 2 (SOW 9).  Oct 98 LNPAWG (Kansas City), this was discussed by the Group, and it was agreed that removing the OPTIONAL tag would conflict with some existing requirements (R5-26) and functionality. Thus, it was decided to leave the OPTIONAL tag in place, which results in no changed functionality. Therefore, this change order essentially becomes NO CHANGE.  Jan 99 LNPAWG (Atlanta), the group decided that the enforcement should be in the rules of the system, and not in the CMIP toolkit. Therefore, need to change the GDMO behavior and IIS to reflect that an SV Modify, when specifying a TN, must also include the status. | Low | Low | |
| NANC 113 | | Change Order Call 6/20/97 | ASN.1 and GDMO for Notification Recovery The ASN.1 and GDMO should be updated to add the notification recovery action for the SOA. | High | IIS | The ASN.1 and GDMO should be updated in the 2.1 release.  This change order has been merged with ILL 79. |  |  | |
| NANC 114 | | Lockheed Martin Team 6/23/97 | Download subscription-version-id optional The "subscription-version-id" is defined as optional in ISS 2.0 in the SubscriptionDownloadData but it should be required. The OPTIONAL tag should be removed. The tagging could also be removed from the ASN.1. | High | IIS / ASN.1 | This change will be made in the IIS.  This is in Release 2 (SOW 9). | Medium Low | Medium Low | |
| NANC 118 | | Lockheed Martin 6/27/97 | CMIP Notification Recovery by Time Range It has been requested that CMIP notification recovery be requested by time range as, as done in LSMS download actions. The IIS action definition contains time range per NANC 113.  The text is currently as follows:  RR6-14 CMIP Notification Recoverability  The non-recoverable CMIP notifications should be recoverable over the NPAC SMS to Local SMS and SOA to NPAC SMS interfaces. ….  The text should be changed as follows:  RR6-14 CMIP Notification Recoverability  The non-recoverable CMIP notifications should be recoverable using time range over the NPAC SMS to Local SMS and SOA to NPAC SMS interfaces.…. | Medium | FRS | This change would be documented in FRS 2.X  This change order has been merged with ILL 79. |  |  | |
| NANC 131 | | AT&T  8/5/97 | LRN-DownloadData Modification In LRN-DownloadData the LRN Value should be optional. Due to the fact that when we try deleted LRN or NPA-NXX, we get sent only the ID and the DownloadReason not the LRN value. Note that the NPA-NXX value is optional in the NPA-NXX –DownloadData.  LRN-DownloadData ::= SET OF SEQUENCE {  Service-prov-lrn-id LRN-ID,  Service-prov-lrn-value LRN Optional,  service-prov-download-reason DownloadReason,  service-prov-lrn-creation-timestamp GeneralizedTime OPTIONAL  } |  | IIS/ASN.1 | Update the IIS and ASN.1.  This is in Release 2 (SOW 9). | Low | Low | |
| NANC 139 | | Ameritech 8/12/97 | Network Data Download to SOA A request has been made to allow network data downloads (M-CREATE, M-DELETE, and M-SET) to be sent to, and if applicable, instantiated on the SOA in addition to the LSMS (i.e., Service Provider, LRN and NPA-NXX information). This functionality would be implemented such that a service provider could specify to the NPAC whether the want to receive data on the LSMS only, the SOA only, or both LSMS and SOA. | Medium | IIS/FRS | The IIS and FRS would be updated.  This is in Release 2 (SOW 9).  Oct LNPAWG (Kansas City), this was discussed even though it is Closed, and slated for Release 2.0. Basically, a clarification was made that the single requirement in NANC 139 was not meant to be all encompassing, but that it was expected that all impacted requirements would be updated by Change Management in the Release 2.0 FRS. All functionality supplied to the LSMS for network data downloads should be allowable from the SOA. | Medium High | High | |
| NANC 145 | | MCI  8/27/97 | Notification Recovery Flows Flows need to be added in IIS 2.3 to show the recovery action being used by the SOA and LSMS. | Medium | IIS | Flows would be added to the IIS 2.3 release.  This change order has been combines with ILL 79. |  |  | |
| NANC 156 | | MCI  9/10/97 | 6.5.3.1 Flow ModificationIIS 1.5 flow 6.5.3.1 needs to be updated to comply with the FRS. Requirements RR5-30 and RR5-31 state that the SP-CancellationTS will not be updated unless the SV cancellation acknowledgment is received from the corresponding SOA. | Low | IIS Flows | Modify the flow such that step j and k come after step l.  Perot states that it is a low effort to comply with requirements.  This change order has no Lockheed impact.  This is in Release 2 (SOW 9). | Low | N/A | |
| NANC 158 | | Bellcore/ESI 9/17/97 | Other Notification RecoveryIn the IIS, under the new SOA notification recovery section the following notifications are not listed:subscriptionVersionStatusAttributeValueChangeattributeValueChangeobjectCreationobjectDeletion These are not documented in the original change order NANC 79 and were not formally added in a later change order. |  | IIS/ASN.1/ GDMO | These notifications should be added to the IIS.  Feedback from SOA vendors and NPAC vendors.  Other SOA vendors to evaluate.  This change order has been combined into ILL 79. Closed. |  |  | |
| NANC 160 | | AGCS  9/17/97 | Single TN in a Range Create The Lockheed implementation does not support subscription version create on a single TN with a TN range where the starting TN equals the ending TN. Perot implementation supports this functionality. |  | IIS | Desired behavior should be determined and documented.  A single TN should not be specified as a range.. Lockheed ITP to be updated. Perot to implement change in the future.  Clarification was put in the release 1 IIS per change order 159.  This is in Release 2 (SOW 9). | Low | N/A | |
| NANC 162 | | AGCS  9/26/97 | TN- Attribute as GET-ReplaceThe TN attribute in the SV should be read only. Due to historical reasons the attribute was get replace due to different implementation discussed for NPA splits. | Low | IIS/ASN.1/ GDMO | The group has accepted this ANS.1 modification. It is a recompile change only. This is in Release 2 (SOW 9). | Low | Low | |
| NANC 178 | | ESI  11/25/97 | NANC 48 Clarifications  The following changes have been requested for clarification in NANC 48:  Requirement 7 - Association Rejection for Associated Service Provider Id  NPAC SMS shall reject any SOA to NPAC SMS association attempt by a Service Provider Id that is a service provider associated with the primary Service Provider Id in the NPAC Customer Associated Service Provider Information.  Wording change made above to make it clearer that the associated service provider association is rejected. This requirement would then be in sync with Assumption 1.  Constraint 1 - Associated Service Provider Notification Aggregation  NPAC SMS aggregation of notifications for primary and associated service provider ids will not be supported by the NPAC SMS.  Should be modified to state ...aggregation of all messages over the SOA to NPAC SMS interface….."  (continued) | Medium | FRS | The group has accepted this change. Submission to the LLC’s has occurred.  This is in Release 2 (SOW 9). |  |  | |
| NANC 178 (cont) | | Continued | Requirements 12 - Filters for Associated Service Providers  NPAC SMS shall apply filters for the associated Service Provider Id before sending them over the SOA to NPAC SMS interface association for the primary service provider.  Should be changed to state "...apply NPA and/or NPA-NXX (accepted) filters...." | |  |  |  |  | |
| NANC 184 | | NANC T&O 1/5/98 | Response for Notification Recovery not Linked The reply for notification recovery was not specified to be linked or not linked. Currently all action replies have been implemented to not be linked replies. It has been requested that a clarification be made to ILL79 to indicate that the notification recovery action reply is not a linked reply. | Medium | IIS | Closed by the team on 1/16/98 for submission to the LLC’s.  This is in Release 2 (SOW 9). |  |  | |
| NANC 185 | | NANC T&O 1/5/98 | Notification Recovery Error Response  It has been requested that an enumerated type of criteria too large be returned to a notification recovery request where the time range is too large. The current ASN.1 as follows:  **NetworkNotificationRecoveryReply ::= SEQUENCE {**  Status ENUMERATED {  success (0),  failed (1),  time-range-invalid (2),  no-data-selected (3)  }…….  will be modified as follows:  NetworkNotificationRecoveryReply ::= SEQUENCE {  Status ENUMERATED {  success (0),  failed (1),  time-range-invalid (2),  criteria-to-large (3),  no-data-selected (4)  }….. | Medium | IIS/ASN.1 | Related to Change order ILL 79. This change order has been closed by the team for forwarding to the LLC’s  This is in Release 2 (SOW 9).. |  |  | |
| NANC 201 | | NANC T&O  3/2/1998 | Unique Sets of Timers Wireless to wireless porting needs tunable timers defined that are independent from wire line timers by region. The following are timers that have been analyzed to date:   1. T1 and T2 timers may need to be defaulted to 1.0 hour. 2. Due date may need time of day to support the shortened timer intervals. 3. The conflict restriction window may not apply to wireless. Conflict could happen at any time after initial port creation. A service provider can put the order into conflict up to the time of the activate. 4. Conflict Resolution New Service Provider Restriction tunable default may remain at 6.0 hours for default. 5. Cancellation timer defaults may remain unchanged.   Note: These timers would be applied to ports that are identified to be wireless to wireless ports.  Actual timer defaults indicated above may change due to discussions occurring in the wireless industry. | High | FRS | It was discussed that to support this change request that unique sets of tunable timers be defined. The NPAC should be developed to support 10 different sets. Initially there would be three sets of timers, short – to support wireless, medium – to support compromises, and long – to support existing wireline. The type of timers being used would be an optional parameter on a create message. For backward compatibility long timers would be the default. Also if a Service Provider did not support the different timers the create would be rejected from the SP indicating timers other than the default of long. The configurable timers in the groups would be T1, T2, conflict restriction window, conflict resolution new service provider restriction, and the cancellation concurrence timers. The timer specification on the create notification in the optional field would be integer numbers so as to support backwards compatibility in the future should more unique sets need to be supported.  See wireless change order detail file.  Submitted to LLCs for sizing and scheduling considerations.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 202 | | NANC T&O  3/2/1998 | Unique sets of Business Days/Hours Business hours need to be defined uniquely for wireless to wireless porting. Saturday must be added and time must also be increased. Default business hours will be 8:00 to 8:00 CT. The tunable is configurable by region. NPAC defined Holiday are OK as defined for wireless to wireless. | High | FRS | It was discussed that to support this change request that unique sets of tunable business hours/days be defined. The NPAC should be developed to support 10 different sets. Initially there would be two sets, short – to support wireless and long – to support existing wireline. The type of business hours/days being used would be an optional parameter on a create message. For backward compatibility long business hours/days would be the default. Also if a Service Provider did not support the different business hour/days the create would be rejected from the SP indicating business hours/days other than the default of long. The business hour/day specification on the create notification in the optional field would be integer numbers so as to support backwards compatibility in the future should more unique sets need to be supported.  See wireless change order detail file.  Submitted to LLCs for sizing and scheduling consideration.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 203 | | NANC T&O  3/2/1998 | Wireless Addition of WSMSC DPC and SSN Information Wireless Short Message Service Center (WSMSC) needs to be added as a new set of DPC and SSN information that is part of the subscription version received from SOA, stored on the NPAC SMS, and sent to the LSMS for wireless to wireless porting. Validation rules are assumed to be those in place today. | ? | IIS/FRS | A bit mask in the NPAC SMS could be used to indicate which SOA and LSMS systems support the new fields.  See wireless change order detail file.  Submitted to LLCs for sizing and scheduling consideration.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 206 | | Telecom Software Enterprises 3/10/1998 | Proposed ASN.1 Change ILL 79 It has been suggested the ASN.1 for ILL 79 be changed to add a choice after the set of sequence for LSMS and SOA make parsing of the notification data more straight forward for the LSMS and SOA systems.  The change to the LSMS portion of the ASN.1 is shown for illustration:  system-choice CHOICE {  lsms SET OF SEQUENCE {  CHOICE {  Subscription-version-new-npa-nxx VersionNewNPA-NXX,  lnp-npac-sms-operational-information NPAC-SMS-Operational-Information  }    Original ASN.1 follows for the LSMS portion:  system-choice CHOICE {  lsms SET OF SEQUENCE {  subscription-version-new-npa-nxx [1] VersionNewNPA-NXX OPTIONAL,  lnp-npac-sms-operational-information [2]  NPAC-SMS-Operational-Information OPTIONAL  } | Medium | IIS/ASN.1 | Vendors need to evaluate this change order to determine if this is a positive change.  This change order has no backward compatibility issues and has been submitted to the LLC’s.  This is in Release 2 (SOW 9). |  |  | |
| NANC 207 | | NANC T&O 3/19/1998 | Removal of Intermediate Notifications  It has been suggested that the intermediate notifications (specifically, “sending”) be removed as a notification to a SOA. This is used when a subscription version has been activated and is going from “pending” to, “active”, “failed”, or “partially failed”. This would reduce the number of notifications sent over the CMIP interface by approximately 30% in the current implementation. This would allow the NPAC SMS and SOA vendors to realize higher performance. | Medium | IIS/FRS | It has been requested that SOA vendors review this change and determine if this type of flow/message sequence change would impact them in their current implementations.  MCI, AGCS, AT&T, ESI, Tekelec, and Bellcore indicated that they would not be impacted by the removal of the sending notifications. A list of affected IIS flows is as follows:  6.5.1.5: Activate (2 message reduction; steps e, f, g, h)  6.5.1.12: PTO: Successful (3 message reduction; steps e, f, g, h, k, l)  6.5.1.13: PTO: Failure (3 message reduction; steps e, f, g, h, k, l)  6.5.1.14: PTO: Partial Failure (3 message reduction; steps e, f, g, h, k, l)  6.5.1.15: PTO Resend: Successful (3 message reduction; steps d, e, h, i, j, k)  6.5.1.16: PTO Resend: Failure (3 message reduction; steps d, e, h, i, j, k)  6.5.2.1: Modify Active using M-ACTION (1 message reduction**;** steps f, g)  (continued) |  |  | |
| NANC 207  (cont) | | Continued |  |  |  | 1. 6.5.4.5: Disconnect: Resend Successful (1 message reduction; steps d, e) 2. 6.5.2.5: Modify Active: Resend Successful (1 message reduction; steps d, e) 3. 6.5.4.1: Immediate Disconnect (1 message reduction; steps f, g)   Note that a subscription version could stay in sending state for over one hour. Operational impact should be investigated by SP’s to insure that if after an SV is activated it would be alright for operations personnel to see the SV in an “active/pending” status ( for over an hour for TN ranges or 6 minutes for single TN activities) until the SV goes to the final state after sending.  Operationally none of the Service Providers indicated they would have any issues with the removal of the “sending” message.  The wording of this description should be changed to state “intermediate notifications apply to sending only”.  Updates are only needed for the IIS flows, and not the FRS or SV status transition diagram, as sending will still occur within the NPAC SMS. Therefore, this change order is ready for finalization.  Approved and closed, 7/15/98. Moved to Future Release Closed List. Waiting for prioritization from the group.  This is in Release 2 (SOW 9). | | | |
| NANC 214 | | Ameritech 4/24/1998 | Conflict Functionality with Due Date = Today  When a subscription version is created with a due date equal to the day it was created, regardless of the status of the T1 and T2 timers, per requirements RR5-42.1 through RR5-42.4, the old SP cannot put the subscription version into conflict after 12:00 on the day before the due date. It has been suggested that the subscription version be allowed to be put into conflict prior to the expiration of the T2 timer.  A clarification made to the requirements that basically states "The timeframe in which the Old SP would have the ability to put an SV into conflict, would be the greater of 12:00 noon the date before the due date OR the expiration of the T2 timer...".  In essence, a New SP that doesn't abide by the three day rule, doesn’t restrict the Old SP from setting to conflict; however, an Old SP that waits to respond to the new SP create until the due date would still have to contend with the expiration of the T2 timer (and may not be able to set to conflict).  (continued) |  | FRS | It was noted that the old SP could issue a cancel. This change order is seen as one that should be implemented prior to release 2 or earlier by some service providers. GTE and Ameritech support implementation of this change order as soon as possible.  Service Providers should be prepared to finalize the proposed wording for RR5-42.1 through RR5-42.4 at the June T&O meeting in Denver.  During the August T&O meeting, it was agreed that the description for this change order is satisfactory.  There was a request to add a statement relating to a discrepancy between this change order and NANC 201. Specifically, requirement #3 of NANC 214 shall supercede the "N/A" listed in the conflict restriction window for short timer default values in the table for NANC 201 that describes timer default values for each of the six applicable timers.  Moved to future release closed list, already submitted to LLCs, awaiting prioritization.  This is in Release 2 (SOW 9). |  |  | |
| NANC 214  (con't) | | Continued | The conflict restriction process is shown below, with *comments* to indicate the desired behavior of the requirements):  1. NPAC SMS shall provide a Conflict Restriction Window that restricts an Old Service Provider from putting a Subscription Version into Conflict. *(New requirement. This means that a Conflict Restriction Window exists, and this is when an Old SP is NOT allowed to put an SV into conflict.)*  2. **RR5‑42.2 Conflict Subscription Version – Conflict Restriction Window**, would remain the same. NPAC SMS shall provide a Conflict Restriction Window Tunable which is defined as the time on the business day prior to the New Service Provider due date that a pending Subscription Version **can no longer** be placed into a conflict state by the old Service Provider. *(Current restriction requirement. This means that the restriction tunable exists, which is a time of day value [e.g., 13:00], and defines the time of day, ON THE DAY PRIOR TO THE DUE DATE, that an Old SP is NOT allowed to put an SV into conflict.)*  3. NPAC SMS shall restrict a Subscription Version from being placed into Conflict by the Old Service Provider, when the Conflict Restriction Window Tunable Time is reached AND the Final Concurrence Timer (T2) has expired. *(New requirement. This means that the restriction for placing an SV into conflict starts when BOTH the tunable time is reached [on the day prior to the due date] AND the Final Concurrence Timer [T2] has expired.)* | |  |  |  |  | |
| NANC 220 | | NANC T&O 6/17/98 | Wireless Due Date Clarification  It was clarified that the Due Time included with the Due Date for wireless to wireless ports shall be formatted HHMM00. This change order has been opened to determine if there are any IIS/FRS references that need to be updated to make clear that time and date are to be supported for Due Date. |  | IIS/FRS | August T&O (Detroit). The CMA reported that there is one reference in the IIS and one reference in the FRS for this due date. A "documentation only" change will be done to state that "*the seconds field should always be populated with zeros for wireless ports*". However, the NPAC SMS will NOT be editing this for compliance.  This will be implemented along with 201, 202, and 203.  Approved and closed, 7/15/98.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 221 | | Lockheed Martin 6/30/98 | Modification of NANC 201 and 202 For New SP Create  Requirements need to be updated to add the subscriptionTimerType or SubscriptionBusinessType to the subscriptionVersionNewSP-CreateRequest. These were omitted from the requirements and should be added. Lockheed has made assumptions in their sizing that this functionality is included. |  | FRS | Approved and closed, 7/15/98. Functionality has been merged into NANC 201 and 202.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 222 | | Lockheed Martin 6/30/98 | WSMSC Addition to Mass Update for NANC 203  Requirement R3-6.1 should be updated to reflect that WSMSC DPC/SSN can be mass updated like the other DPC/SSN information. Lockheed made the assumption that this functionality should be included in their sizing. |  | FRS | This is a companion to NANC 203, and should be included when that change order is implemented.  Approved and closed, 8/12/98. Functionality has been merged into NANC 203.  This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |
| NANC 224 | | TSE  7/6/98 | Canadian Region NPAC ID  The current documentation does NOT list the Canadian NPAC and corresponding region ID (0007). This needs to be changed in the IIS.  The current documentation starts with MidWest (0000) and goes up to West Coast (0006). This is section 4.3 in Exhibit 13. |  | IIS | Approved and closed, 7/15/98. Move into "Accepted" category, awaiting next release of the IIS.  The text will be changed as follows:  NPAC SMS Region = *Canada*  LnpNPAC-SMS-Name = *Region8*  *NPAC Canada*  NPAC Customer ID = *0007* |  |  | |
| NANC 233 | | TSE  8/28/98 | Documentation Change to IIS for 6.5.1.6 Active SV Create on Local SMS  The flow picture needs to be updated to coincide with the existing text. The text for step i states, "NPAC SMS notifies the current SP SOA for the previously active SV of the status change".  In this case, the current SP SOA of the previously active SV would now be the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA. |  | IIS | The documentation should be updated in the 1.11 version of the IIS.  Oct LNPAWG (Kansas City), approved by the group. Move into "Accepted" category, awaiting next release of the IIS. |  |  | |
| NANC 234 | | TSE  8/31/98 | Documentation Change to IIS for 5.2.1.10 Signature Data Type for Sequence Number  The Data Type for the sequenceNumber should be changed from ASCII to integer.  This is how the NPAC SMS and all current SOA and LSMS systems are implemented. |  | IIS | The documentation should be updated in the 1.11 version of the IIS.  Oct LNPAWG (Kansas City), change words to state from "ASCII to integer". Approved by the group. Move into "Accepted" category, awaiting next release of the IIS. |  |  | |
| NANC 236 | | TSE  9/4/98 | Documentation Change to IIS for 6.5.1.12 SubscriptionVersion Port-to-Original: Successful  The flow picture needs to be updated to coincide with the existing text. The text for step k states, "NPAC SMS sends to the current/new service provider SOA a subscriptionVersionStatusAttributeValueChange for the subscriptionVersionStatus being set to sending on SV1", and step r, "…set to old…".  In this case, the subscriptionVersionStatusAttributeValueChange should be going to the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA. |  | IIS | The documentation should be updated in the 1.11 version of the IIS.  Oct LNPAWG (Kansas City), approved by the group. Move into "Accepted" category, awaiting next release of the IIS. |  |  | |
| NANC 238 | | TSE  9/18/98 | Documentation Clarifications for Wireless Change Orders, NANC 201, 202, and 203  The flags contains inconsistent information, regarding the definition of "TRUE" for support or not support of the new functionality. These should be made consistent.  Also, the default value is not defined in the requirements. |  | FRS | The flags for these three change orders will be made consistent. Specifically, the value of TRUE indicates supporting the functionality, and the value of FALSE indicates not supporting the functionality.  The default value for these three change orders shall be set to FALSE (indicating that the Service Provider does NOT support this new functionality).  Oct LNPAWG (Kansas City), this has been moved into the "Accepted" category, awaiting prioritization. It should be included in the Amendment to SOW 9.  The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release. |  |  | |

# Release 2.0.1

| **Release 2.0.1 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 68  Rev 2 | | National Number Pooling Sub-Com’ttee 2/16/99 | Mass Update Requirement Change  For a Mass Update, need to require the SPID of the SP requesting the update (R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions, appears to make the SPID optional). This will prevent one SP from updating another SP’s data.  The result is one changed requirement (R3-7.1) and one new requirement.  R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions  NPAC SMS shall allow NPAC personnel to select Subscription Versions for mass update which match a user defined combination of any of the following: TN, TN range, ~~Service Provider ID,~~ LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value.  Following is the new requirement:  R3-7.x Mass Update Required Entry of Service Provider ID  NPAC SMS shall require NPAC personnel to specify a Service Provider ID when entering Selection Criteria for a Mass Update. |  | FRS | Mar LNPAWG (Denver), verify that Jim Rooks O.K. with new words.  Group O.K. with this, once verified, move to next doc list.  CMA action item -- Verify both current and 2.0 M&P that the requesting person belongs to the SPID.  Apr LNPAWG (DC), group O.K. with this, move to Next Documentation List. |  |  | |
| ILL 75 Rev 2 | | NANC LNPA WG  2/1/99 | Validate Due Date is > than, or equal to, the NPA-NXX effective date upon Pending Version Creation  A request has been made for additional requirements for due date validation upon pending version creation for an NPA-NXX that is not in effect. The due date would not be considered valid if it were not greater than, or equal to, the NPA-NXX effective date. This change would keep activation of a pending subscription version from occurring before the effective date of an NPA-NXX.  Requirement R5-18.4.2 – Create Subscription Version – Due Date Validation for NPA-NXX effective date  NPAC SMS shall verify that the due date is greater than, or equal to, the NPA-NXX effective date upon Subscription Version creation for an Inter-Service Provider Port.  Requirement RR5-6.4.2 Create “Intra-Service Provider Port” Subscription Version – Due Date Validation for NPA-NXX effective date  NPAC SMS shall verify that the due date is greater than, or equal to, the NPA-NXX effective date upon Subscription Version creation for an Intra-Service Provider port. |  | FRS | Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 228 | | AT&T  8/10/98 | Maximum ID Value  With the increase in porting activity, AT&T feels that we need to start addressing the NPAC's maximum ID value for SVs, LRNs, NPA-NXXs, etc. |  | FRS | Discussed during 8/12/98 face-to-face T&O meeting (Detroit).  Jim stated that the NPAC allows a value up to 2(32), which equates to 2.14B (signed 32-bit integer).  Sep LNPAWG (Seattle), the issue is that the NPAC (2.14B, signed 32-bit integer) and SPs (16M, un-signed 32-bit integer) that use version 1 of the DSET Toolkit have a different maximum value. At some point in time, this will become an issue, since the NPAC and the SP could be out of sync on the max value (so NPAC could send an ID that is greater than what a local SP can support).  This change order will update the IIS to state the current limitations, so that SP technical staff will be aware of this situation, and be able to plan accordingly.  Oct LNPAWG (Kansas City), it was requested that Jim and John get together to provide words for this. The proposed text is shown below.  (continued) |  |  | |
| NANC 228  (con't) | | Continued |  |  |  | In the IIS, section 2.3 and 2.4, the following text should be added as a new paragraph at the end of the section, prior to sub-sections 2.3.1 and 2.4.1.  *"The NPAC SMS currently uses a 32-bit signed integer for the Naming ID Value. The maximum value is ([2\*\*32] – 1) or 2.14B. It is anticipated that all Service Providers will be able to successfully handle Naming ID Values up to this maximum".*  In the GDMO/ASN.1, it has been requested that the behavior state that the NPAC is using a 32-bit signed integer.  This will undergo approval during the Nov LNPAWG meeting.  Nov LNPAWG (Dallas), this has been approved by the group. This change order now moves to future release, and will be included in the next release of the documentation.  Mar LNPAWG (Denver), possibly put into section 5.2.1.7 (sequencing numbering is discussed), instead of 2.3 and 2.4. Leave up to CMA to determine best place for new paragraph. | | | |
| NANC 231 | | BellSouth  8/12/98 | Request for "Assurance of the Sequence of Transaction Processing", documentation update  The CMA will investigate the documentation updates to state that the NPAC is operating in Confirmed Mode over the stack, and that an SP should not send more than one message for a single object at a time (i.e., wait for a response on the first message, before sending the second message for the same object). |  | IIS | August T&O (Detroit). This change order was opened to replace its "sister" change order, NANC 229.  Sep LNPAWG (Seattle), CMA is working with Lockheed to determine best place to insert new text regarding "confirmed mode and transaction processing".  Oct LNPAWG (Kansas City), Kayla has had discussion with Mark Foster on this issue.  The proposed changes are to section 2.1, first paragraph, after the sentence "*…fully supported in a confirmed mode*."  The additional text is, "*Thus, the sequencing of operations is implied by the receipt of the confirmation or operation response, and NOT by the sequence that the operation request is received.*"  Nov LNPAWG (Dallas), this has been approved by the group. This change order now moves to future release, and will be included in the next release of the documentation. |  |  | |
| NANC 241 | | LNPA  WG  10/15/98 | Documentation change for NANC 108 IIS Discrepancy with R5-26  The IIS needs to be updated to specify when the status is required and when optional. |  | IIS | This will be put into the queue of CMA updates to the IIS. No date has been scheduled. |  |  | |
| NANC 242 | | TSE  10/20/98 | Documentation Change to FRS for R7-96  The FRS incorrectly lists the elements of the digital signature. It states: unique id of sender, generalized time of msg issuance, sequence number, key id, key list.  The list should be as stated in the IIS: system ID, system type, user ID, departure time, sequence number. |  | FRS | The documentation should be updated in the next version of the FRS. |  |  | |
| NANC 248 | | AT&T 12/4/98 | GDMO Behavior and IIS Updates There are four proposed updates to the GDMO.  1) Need to define the usage of the lnpDownload reply errors. The following needs to be added to the GDMO behavior.  "The following errors can be returned in the lnpDownloadReply:  criteria-too-large - Too many records are being returned. This is determined by the MAXIMUM NUMBER DOWNLOAD RECORDS tunable on the NPAC SMS.  time-range-invalid - The time range given exceeeds the MAXIMUM DOWNLOAD DURATION tunable on the NPAC SMS.  no-data-selected - No criteria selected in request.  failed - Failed for other reasons. "  2) Reference Requirement 4 of NANC 79 in the GMDO for Release 2 under lnpNotificationRecovery action:  "The recovery of the SOA and LSMS notifications are independent requests".  (continued) |  |  | Jan LNPAWG (Atlanta), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 248 (con’t) | | Continued | 3) Need to update and document the following item in the IIS/GDMO:  "Notifications can be recovered until they are purged from the database. The tunable used to determine when to purge notifications is 'Notify Log Retention Period' which defaults to 90 days. "  4) Need to update and document the following item in the IIS/GDMO:  "The purge of audits are based on the tunable 'Audit Log Retention Period' which defaults to 90 days."  Also specify in the audit flows, the M-DELETE does not occur until 90 days after the audit. |  |  |  |  |  | |
| NANC 250 | | National Number Pooling Sub-Committee 12/17/98 | Documentation Change to the FRS  During the National Number Pooling requirements review, the following documented areas were addressed:   1. SV data model. The three “… Broadcast Complete Timestamp” attributes need to have the “or retries are exhausted” text removed, in order to align with current NPAC SMS behavior. 2. SV data model. The status change cause code text needs to have #55 removed, in order to align with current NPAC SMS behavior. |  | FRS | This will be put into the queue of CMA updates to the FRS. No date has been scheduled.  Jan LNPAWG (Atlanta), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 253 | | ESI  12/23/98 | Documentation Change to the FRS During the review of the 2.0 FRS, several issues were raised with the current documentation:   1. RR5-38.4 should have the modify active portion removed from the requirement. 2. A new requirement should be added to reflect the modify active portion of RR5-38.4. 3. A new requirement should be added (like RR5-38.8) to reflect the resend of the modification request. |  | FRS | This will be put into the queue of CMA updates to the FRS. No date has been scheduled.  Jan LNPAWG (Atlanta), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 255 | | ESI 1/7/99 | GDMO Documentation Changes  The following changes were discovered during the R2 review.   1. In all the behavior for DPC attributes: The data is stored in BCD (e.g., a value of FFF would be displayed as 255.255.255).  Change FFF to FFFFFF 2. Under the lnpDownload Action definition, it should state (new words in *larger print italics*): The lnpDownload action is the action that is used by the Local SMS *and SOA* to specify the objects to be downloaded from the NPAC SMS. |  | GDMO, IIS | Jan LNPAWG (Atlanta), John will write up description.  Group O.K. with this change order. Move to next documentation list. |  |  | |
| NANC 256 | | ESI 1/12/99 | First Port Notifier for New NPA-NXX in an NPA Split  Jim Rooks requested that we discuss/document the behavior for the current functionality of the first port notifier. Currently, the NPAC sends out a first port notification of an SV Create for a New NPA-NXX involved in a split, regardless of SVs that may have been moved from the Old NPA-NXX at the start of PDP.  This new requirement will go in the same FRS section as RR5-3, which defines first port notifiers (the underlined words define the differences between the existing requirement and the proposed new requirement).  *Req 1 – Create Subscription Version – Notify NPA-NXX First Usage of a New NPA-NXX involved in an NPA Split*  *NPAC SMS shall notify all accepting Local SMSs and SOAs of the NPA-NXX, effective date, and owning Service Provider when a New NPA-NXX involved in an NPA Split, is being ported for the first time, after the start of Permissive Dialing, immediately after creation validation of a Subscription Version.* |  | FRS | Jan LNPAWG (Atlanta), John will write up description for next meeting.  Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 258 | | Natl N Pool Sub-Com’ttee 1/28/99 | FRS Documentation Change  In the R2 version of the FRS, the SV Data Model incorrectly states that “…broadcast complete timestamps” may be updated based on the exhaustion of retries.  The deleted text is ~~redlined~~, and the new text is listed in *larger print italics* shown below: Activation Broadcast Complete Time Stamp The date and time that at least one Local SMS system successfully acknowledged the broadcast, ~~or the retries were exhausted~~ for the activate *of the Subscription Version*. Disconnect Broadcast Complete Time Stamp The date and time that at least one Local SMS system successfully acknowledged the broadcast, ~~or the retries were exhausted~~ for the disconnect *of the Subscription Version*. Modify Broadcast Complete Time Stamp The date and time that ~~all~~ *at least one* local SMS system~~s~~ successfully acknowledged *the broadcast,* ~~or the retries were exhausted~~ for the modification of the Subscription Version. |  | FRS | Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 259 | | Natl N Pool Sub-Com’ttee 2/3/99 | IIS Documentation Change  In the R2 version of the IIS, in Exhibit11, the description associated with the subscriptionVersionStatusAttributeValueChange notification should be updated.  The deleted text is ~~redlined~~, and the new text is listed in *larger print italics* shown below:  This notification is issued when the subscription version status is modified. This notification is issued from ~~both~~ the NPAC SMS to ~~Local SMS interface~~ a~~nd the~~ SOA *via the SOA* to NPAC SMS interface from the subscriptionVersionNPAC object. |  | IIS | Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 260 | | CMA 2/3/99 | FRS Documentation Change  New requirement to clarify the intent of ILL-75. Specifically, additional requirement related to R5-29.2 (currently only check that new due date is current or future date) to cover the “modify” scenarios, since the business purpose of ILL-75 was to eliminate the ability to activate an SV prior to the NPA-NXX effective date.  **Modify Subscription Version – Due Date Validation for NPA-NXX Effective Date**  The NPAC SMS shall allow a Subscription Version modification request for the due date, when the new value is equal to, or greater than, the NPA-NXX effective date, upon Subscription Version Modification. |  | FRS | Feb LNPAWG (San Ramon), group O.K. with this change order. Don’t need first requirement (since covered in 29.2). Move to next doc category. |  |  | |
| NANC 261 | | CMA 2/3/99 | FRS Documentation Change  The FRS contains requirements (RN3-4.33, RN3-4.34, RN3-4.35) for change order NANC 193 (NPA Split behavior) which have NOT been implemented or requested by the LLCs. These requirements should be removed from this document, in order to accurately reflect current NPA Split behavior. |  | FRS | Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category. |  |  | |
| NANC 262 | | CMA 2/3/99 | FRS Documentation Change Re-send of activation request (RR5-38.4) should have reference to modification removed, and a new requirement (in the re-send section, RR5-38.9) should be added to reflect the re-send of an active SV that failed the initial modify active request. Also, update RR5-38.5 to have consistent words.  **RR5-38.4 Resend Subscription Version - Activation Request**  NPAC SMS shall resend a Subscription Version activation request, if ~~either~~ the Subscription Version previously failed activation ~~or an active Subscription Version previously failed modification~~, to the designated list of failed Local SMSs via the NPAC SMS to Local SMS Interface upon a Subscription Version resend request.  **RR5-38.9 Resend Subscription Version – Modification Request**  NPAC SMS shall resend a Subscription Version modification request, if an active Subscription Version previously failed modification, to the designated list of failed Local SMSs via the NPAC SMS to Local SMS Interface upon a Subscription Version resend request.  **RR5-38.5 Resend Subscription Version – Disconnect Request**  NPAC SMS shall resend a Subscription Version disconnect request, if the Subscription Version **previously** failed disconnect, to the designated list of failed Local SMSs **via the NPAC SMS to Local SMS Interface** upon a Subscription Version resend request. |  | FRS | Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category.  Also, update other RR5-38.x requirements to have consistent words. |  |  | |
| NANC 263 | | CMA 2/3/99 | FRS Documentation Change  Need document clarification on p. 2-7, section 2.4.2.1 (cancel-pending notification). This paragraph is confusing, since it implies that the New SP must send up the cancellation request AND NOT send up the concurrence for the cancellation request, in order for the SV to go into a cancel-pending state. The confusion is that the SP requesting the cancel, does NOT have to concur.  2.4.2.1 Cancel Pending Notification  The new Service Provider may also cancel the Subscription Version, effectively taking it out of the conflict state. If the Subscription Version was previously in a cancel-pending state **AND** the Service Provider requesting the cancellation did **NOT** provide concurrence for that cancellation request, then that request will be accepted and the Subscription Version will be placed in cancel-pending. Otherwise, the request will be rejected.  PROPOSED NEW WORDS  “The cancel-pending notification is used for Subscription Versions where both the Old and New Service Providers have sent their Create message to the NPAC SMS. The status will be either pending or conflict.  If the Old Service Provider sends the Cancel message, the Subscription Version is set to cancel-pending. A notification is sent to both Old and New Service Providers.   1. If the New Service Provider sends a cancellation acknowledgment, the status is set to Canceled.   (continued) |  | FRS | Feb LNPAWG (San Ramon), group reviewed words, and decided the context of the section and words.  CMA to write up new text for Mar mtg.  John Malyar has agreed to look at the NANC ops flows to see if there is anything tied to the timers for the Service Provider that initiated the cancel.  Mar LNPAWG (Denver), group O.K. with this change order, with minor change for “conflict” to “cancel” in case of New SP sending cancel, and Old SP NOT sending concurrence. Move to next doc category. |  |  | |
| NANC 263 (con’t) | | Continued | 1. If the New Service Provider does NOT send a cancellation acknowledgment, the NPAC SMS waits for both Cancellation Concurrence Windows to expire, at which time the status is set to Conflict. 2. The Old Service Provider may optionally send the cancellation acknowledgment.   If the New Service Provider sends the Cancel message, the Subscription Version is set to cancel-pending. A notification is sent to both Old and New Service Providers.   1. If the Old Service Provider sends a cancellation acknowledgment, the status is set to Canceled. 2. If the Old Service Provider does NOT send a cancellation acknowledgment, the NPAC SMS waits for both Cancellation Concurrence Windows to expire, at which time the status is set to Cancel. 3. The New Service Provider may optionally send the cancellation acknowledgment.” |  |  |  |  |  | |
| NANC 266 | | AGCS 2/25/99 | ASN.1 Change  A change to the Release 2.0 ASN.1 has been discovered. Specifically, the “tagging” for a sequence needs to be changed, based on the 1.6 ASN.1.  1.6  VersionCreateConcurrenceRequest ::= SEQUENCE {  tn PhoneNumber,  version-id LnpKey,  service-prov-id ServiceProvId,  service-prov-due-date GeneralizedTime,  service-prov-authorization-creation-time-stamp  GeneralizedTime,  access-control LnpAccessControl  }  v2.0.0  VersionCreateConcurrenceRequest ::= SEQUENCE {  tn [0] PhoneNumber,  version-id [1] LnpKey,  service-prov-id [2] ServiceProvId,  service-prov-due-date [3] GeneralizedTime,  service-prov-authorization-creation-time-stamp [4]  GeneralizedTime,  access-control [5] LnpAccessControl,  subscription-timer-type [6] Integer OPTIONAL,  subscription-business-type [7] Integer OPTIONAL  }  The fix would be to only tag the last 2 new fields:  Subscription-timer-type [0] Integer OPTIONAL,  subscription-business-type [1] Integer OPTIONAL |  | ASN.1 | The final ASN.1 is shown below:  VersionCreateConcurrenceRequest ::= SEQUENCE {  tn PhoneNumber,  version-id LnpKey,  service-prov-id ServiceProvId,  service-prov-due-date GeneralizedTime,  service-prov-authorization-creation-  timestamp GeneralizedTime,  access-control LnpAccessControl,  subscription-timer-type [0] Integer  OPTIONAL,  subscription-business-type [1] Integer  OPTIONAL  } |  |  | |
| NANC 267 | | AGCS 2/25/99 | ASN.1 Change  A change to the Release 2.0 ASN.1 has been discovered. Specifically, the “tagging” for two different sequences needs to be changed, based on the 1.6 ASN.1.  v1.6  VersionNewSP-CreateRequest ::= SEQUENCE {  version-create-request [0] VersionCreateConcurrenceRequest,  service-prov-old-authorization [1] ServiceProvAuthorization,  subscription-status-change-cause-code [2]  SubscriptionStatusChangeCauseCode  }  v2.0.0  VersionNewSP-CreateRequest ::= SEQUENCE {  version-create-request VersionCreateConcurrenceRequest,  service-prov-old-authorization ServiceProvAuthorization,  subscription-status-change-cause-code  SubscriptionStatusChangeCauseCode  }  The fix would be to add the tagging (i.e., 0, 1, 2) back into this Create Request. |  | ASN.1 | The final ASN.1 is shown below:  VersionNewSP-CreateRequest ::= SEQUENCE {  version-create-request [0]  VersionCreateConcurrenceRequest,  service-prov-old-authorization [1]  ServiceProvAuthorization,  subscription-status-change-cause-code [2]  SubscriptionStatusChangeCauseCode  } |  |  | |
| NANC 278 | | AT&T 4/5/99 | FRS Documentation – SV requirements  Several requirements need to be updated in the 2.0.0 FRS. Deleted words are ~~red strikethrough~~, and new words are listed in *larger print italics*.  R5‑66.2 Disconnect Subscription Version Complete - Set Disconnect Broadcast Complete Date  NPAC SMS shall *update* ~~set~~ the Disconnect Broadcast Complete timestamp *of* ~~to the current date in~~ the previously active~~, now old,~~ Subscription Version upon *completion of the broadcast, and the FIRST* ~~a~~ successful *response* ~~disconnect~~ from *a* ~~one~~ Local SMS.  R5‑66.3 Disconnect Subscription Version Complete - Set Disconnect to Old  NPAC SMS shall set the ~~sending~~ disconnect Subscription Version to old *if* ~~upon~~ a successful *response from at least one* ~~disconnect in all~~ Local SMS~~s~~ *is returned*.  R5‑66.4 Disconnect Subscription Version Complete – Status Update of SV (new requirement)  *NPAC SMS shall update the status of the disconnect Subscription Version upon completion of the Deletion broadcast, and a response from ALL Local SMSs, or retries are exhausted.* |  | FRS | Apr LNPAWG (DC), group O.K. with this change order. Move to next doc list. |  |  | |
| NANC 278 (con’t) | | continued | R5-40.5 Modify Active Subscription Version – Modify Broadcast Complete Time Stamp Update (new requirement)  *NPAC SMS shall update the Modify Broadcast Complete Timestamp of a Subscription Version upon completion of the broadcast, and the FIRST successful response, from a Local SMS.*  R5-40.6 Modify Active Subscription Version – Status Update of SV (new requirement)  *NPAC SMS shall update the status of the modify active Subscription Version upon completion of the Modify Broadcast, and a response from ALL Local SMSs, or retries are exhausted.* |  |  |  |  |  | |

# Release 2.0.2

| **Release 2.0.2 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 247 | | National Number Pooling Sub-Com’ttee 11/19/98 | Document the current functionality for audit processing of “in-progress” SVs  While reviewing the Natl N Pool requirements, it was noted that the audit processing for “in-progress” SVs is NOT documented in the FRS.  It has been requested by the Sub-Committee to update this information in the FRS.  A new requirement will be added to the FRS in section 8.4 (System Functionality) to capture the “in-progress” SVs.  RR8-4 Skip Subscription Versions with a Status of Sending  NPAC SMS shall, when processing the audit query results from a Local SMS, NOT perform comparisons or attempt to correct any Subscription Version within the requested range, which has a status of sending.  RR8-5 Report No Discrepancies Found in Audit Results for Skipped Subscription Versions  NPAC SMS shall consider a skipped Subscription Version as non-discrepant, and report no discrepancies found in the audit results. |  | FRS | In the 1.4 version of the NPAC SMS, an audit request for an SV with a status of Sending is skipped by the NPAC (i.e., no query requests are sent to the LSMSs) and reported back to the requesting SOA as “no discrepancies found” for the audited TN.  This will be put into the queue of CMA updates to the FRS. NO date has been scheduled.  Jul LNPAWG (Ottawa), group O.K. with this. Move to next doc category.  8/24/99 internal review, stated that the statement above (“…no query requests are sent to the LSMSs…”) is incorrect. The NPAC SMS sends the requests, but doesn’t perform the comparison. The requirements reflect accurate behavior. |  |  | |
| NANC 252 | | MetroNet 12/23/98 | Improved Notification Process for LTI Users The current notification process for LTI users in the NPAC SMS has three significant shortcomings, two of which preclude the LTI’s usefulness in a Service Provider’s environment. These are as follows:   1. the same notification may be returned over several pollings, and there is no easy way of recognizing notifications that have already been read; 2. there is an arbitrary and rather low limit (currently 100) to the number of notifications that the NPAC SMS provides to the LTI server during a polling interval, and any additional notifications during the interval are lost; 3. polling by the NPAC SMS is carried out on a scheduled rather than a demand basis, and is done whether it is required or not.   The first two shortcomings undermine the viability of the LTI as a production environment tool. The third shortcoming wastes NPAC SMS resources. |  |  | Pure Backwards Compatible: YES  It is proposed that regularly scheduled polling of notifications by the NPAC SMS, for all SPIDs, whether required or not, be abandoned. In place of this it is proposed that LTI users be able to query the notification data in the NPAC SMS directly, on demand.  The new functionality would provide LTI users with a query screen. This screen would allow users to query for notifications addressed to their SPID. Time range and number of records tunables would be required to manage the volume of data returned, as well as the impact on NPAC SMS resources. The screen would contain an active button, labeled “more”, if one or more unread notifications remained beyond the limits set by the tunables.  Once the results of the query had been presented to the user, the user would have the ability to mark the notifications as “read”. Conversely, the user would have the ability to leave the notifications as “unread”, and this would be the default state.  (continued) |  |  | |
| NANC 252 (con’t) | | Continued |  |  |  | In responding to a query, notifications marked “read” would not be returned by the NPAC SMS. This would eliminate the need to generate and send useless data, as is currently the case.  Jan LNPAWG (Atlanta), group O.K. with this change order. Move to accepted list. Will flush out specific requirements when this change order gets placed into a specific NPAC release. |  |  | |
| NANC 264 | | LNPA WG 2/1/99 | FRS and IIS Documentation Change  A request has been made to add definitions to both documents related to “time”.  Specifically, the following should be added:   1. Central Time (standard/daylight) – this is the time in the central time zone, that includes daylight savings time. It changes twice a year based on standard time and daylight savings time. The NPAC SMS runs on hardware that uses this time. 2. Central Standard Time – this is the time in the central time zone, as reflected in standard time ONLY. It does NOT change to reflect daylight savings time. This is also referred to as “network time”. |  | FRS/IIS | CMA to determine best place in FRS/IIS.  8/24/99 internal review, stated that the NPAC SMS performs activities in central time (standard/daylight), and doesn’t use network time. Therefore, the second part of the definition is not applicable since it doesn’t apply to the NPAC SMS, FRS, or IIS. |  |  | |
| NANC 268 | | National Number Pooling Sub-Com’ttee  3/16/99 | Documentation change for Mass Update  While reviewing the Natl N Pool test cases, it was noted that the mass update functionality for NPA-NXX Range, is not documented in the FRS.  It has been requested by the Sub-Committee to update this information in the FRS.  Section 3.2 NPAC Personnel Functionality  **Existing Requirement:**  R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions  NPAC SMS shall allow NPAC personnel to select Subscription Versions for mass update which match a user defined combination of any of the following: TN, TN range, LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value.  **Updated Requirement:**  R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions  NPAC SMS shall allow NPAC personnel to select Subscription Versions for mass update which match a user defined combination of any of the following: TN, TN range *(NPA-NXX-xxxx through yyyy, where yyyy is greater than xxxx)*, LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value. |  | FRS | Apr LNPAWG (DC), remove time range.  This will be put into the queue of CMA updates to the FRS. No date has been scheduled. |  |  | |
| NANC 272 | | National Number Pooling Sub-Com’ttee  3/24/99 | Documentation change for Audit status  While reviewing the Natl N Pool test cases, it was noted that the audit functionality for FRS requirement R8-17.2 does not indicate that an SV with a status of Old is considered “deleted” even though it still exists on the NPAC, and therefore an LSMS that responds with “no record found” is actually correct behavior.  It has been requested by the Sub-Committee to update this information in the FRS. |  | FRS | Deleted words are ~~red strikethrough~~, and proposed new text is listed in *larger print italics*.  R8-17.2 Add TNs to Service Provider Subscription Versions  NPAC SMS shall, following the comparison of its own Subscription Versions to the Service Provider’s Subscription Versions, *broadcast to the Service Provider an update for* ~~add~~ any TN *that was NOT* found ~~to be absent back into~~ *in* the Service Provider’s Subscription Version database, *where the status of theSubscription Version is Active or Partial Failure*.  May LNPAWG (Baltimore), group O.K. with this change order. Move to next documentation category. |  |  | |
| NANC 273 | | LTI Users Group  3/24/99 | LTI Subscription Version Query Max Size  When the results from an LTI subscription query exceed the maximum size tunable, an error message is returned that simply gives the number of hits. Instead, the response should return the subscriptions up to the tunable limit and provide a button allowing the user to request more. |  |  | The proposed change involves a “more” button. If the Query results exceed the maximum query tunable (currently set to 150), the LTI should return the first 150 results and provide a “more” button for the next 150 results. This should continue until all subscription versions are returned.  Apr LNPAWG (DC), group discussed functionality, and whether or not a similar requirement should be imposed on the SOA side.  There is no change to the SOA for this change order.  There is no performance impact to the NPAC SMS, as the SV queries will still be performed in groups of 150 (max) at a time, between the LTI and the NPAC SMS, and each time the LTI user presses “more”, the next group of SVs (150 max) will be returned to the user’s browser.  May LNPAWG (Baltimore), group O.K. with this change order. Move to accepted list. A new change order was opened for similar functionality for SOA.  June LNPAWG (San Ramon), group O.K. with this. Move to accepted list. |  |  | |
| NANC 276 | | AT&T 4/1/99 | IIS Documentation – Immediate Disconnect B.5.4.1  There is a discrepancy between the IIS (Flow B.5.4.1) and the FRS (RR5-24). In the flow, steps b,c,d,e,f document Effective Release Date and disconnect pending status. In this flow, an Effective Release Date is NOT provided (it’s in Flow B.5.4.2 Deferred Disconnect with Effective Release Date). In the requirement (RR5-24) the status of disconnect pending is only set when an ERD is specified. |  | IIS | The proposed change is to update Flow B.5.4.1 in steps b,c,d,e,f to remove the Effective Release Date and disconnect pending status.  Apr LNPAWG (DC), group O.K. with this change order. Move to next doc list. |  |  | |
| NANC 277 | | AT&T 4/1/99 | IIS Documentation – Modify Active SV B.5.2.1  There is an error in the IIS (Flow B.5.2.1). In the flow, steps f and g document an M-EVENT-REPORT for attributeValueChange erroneously going to the current SOA. |  | IIS | The proposed change is to update Flow B.5.2.1 by removing steps f and g to remove the M-EVENT-REPORT for attributeValueChange.  Apr LNPAWG (DC), group O.K. with this change order. Move to next doc list. |  |  | |
| NANC 280 | | TSE 4/19/99 | Clarification for Notification Recovery Limitation  A notification recovery limitation was not implemented with ILL-79. It has been requested that a change order be opened to implement a “criteria-too-large” response for requests beyond a record limit.  A new tunable for number of notifications will be added.  Name = MaxNotificationRecovery  Desc **=** Maximum Number of Download Notifications  Default Value = 2000  Units = records  Valid Range = 1 – 2000  Processing Steps for this Change Order:   1. The Service Provider system sends a notification recovery request to the NPAC. 2. The NPAC retrieves the records that match the requested criteria, and compares the number to the current tunable value. 3. If the number of records exceed the tunable value, a NetworkNotificationRecoveryReply is returned to the SP system with the status field populated with values 3, signifying “criteria-too-large”. No notifications will be included with this reply. 4. When an SP system sees this response, the suggested behavior is to reduce the time range requested in the notification recovery action and re-issue the request. |  |  | May LNPAWG (Baltimore), the group discussed this change order, and requested that a write-up be provided for the next meeting.  June LNPAWG (San Ramon), discussed the issue from Jim Rooks (during 2.0 testing, discovered that stack limitation caused problems if notifications are greater than 2000).  Jim to take an action item to check into the timestamp issue if a large port is taking place and the old SP is down, then needs to recover at a later time (i.e., is this a similar problem to 279/285).  Jim’s response:  The timestamp that is used for notification recover is set when the message is sent from the NPAC router. Therefore, there shouldn't be a problem with more that 2000 for a single service provider having the same timestamp (since this is currently not possible).  It should also be noted that the implementation of linked-replies (NANC 186) alleviates the problem described in this change order.  Jul LNPAWG (Ottawa), the processing steps are accepted. It should be noted that this change order is not backwards compatible. |  |  | |
| NANC 281 | | AGCS 4/26/99 | IIS Doc Change for New Conflict Removal Flow  Need to add an IIS Flow (B.5.5.5) that shows the old service provider removing a subscription version from conflict. The current documentation only lists the new service provider removing the conflict (flow B.5.5.2). |  | IIS | May LNPAWG (Baltimore), group O.K. with this.  This will be put into the queue of CMA updates to the IIS. No date has been scheduled. |  |  | |
| NANC 282 | | AT&T 4/30/99 | GDMO Change for WSMSC backwards compatibility  In their integration testing, they found a problem with the 2.0 GDMO model. It was the intent of the release to have the WSMSC DPC/SSN data optional according to a flag set on the NPAC SMS. However, the manner in which the GDMO file was written for these attributes, causes the data to be required for all M-CREATEs going to the LSMSs. All other operations, including those from the SOA, were either written correctly or not impacted.  To summarize the problem, the NPAC SMS has requirements that state the LSMS can elect to support or not support the WSMSC DPC and SSN attributes in the subscription version object. If the LSMS does not want to support these attributes, the NPAC SMS should not send these attributes to the LSMS on subscription version creates and modifies.  As the GDMO model is written currently, a single subscription version create to the LSMS will REQUIRE the attributes to be sent. In order to correct the problem, a new GDMO needs to be released that instead of having these attributes required, they are optional. |  | IIS/GDMO | May LNPAWG (Baltimore), discussed on “emergency” telecon on 5/3/99. Information was distributed via e-mail to lnpa e-mail alias. This was going to be placed in the test environment within the next two weeks (5/12/99) for SP testing. |  |  | |
| NANC 286 | | AT&T  5/17/99 | Maximum Subscriber Query Name Change and Default Value Change  The current FRS lists this tunable as “Maximum Subscriber Query”, with a default value of 50 records.  A request has been made to change the name to match the name used by the NPAC SMS (i.e., “Maximum Subscription Query”), and to update the default to match current values in production.  Also, the description incorrectly states “…maximum number of active subscription versions…”. The “active” should be removed, as this includes all SVs. |  | FRS | June LNPAWG (San Ramon), discussed the three requested changes. It was noted that the current values in production are on the Lockheed secure web site. Therefore, AT&T is O.K. with removing the second requested change for the default value. The other two requested changes will still be implemented.  This should be moved to the next documentation release section. |  |  | |
| NANC 290 | | ESI  6/14/99 | Documentation Change – FRS RR3-13.2 and R5-19.6 wording changes  RR3-13.2 Business Day Start Time – Tunable Parameter Modification  NPAC SMS shall ~~default~~ set the long and short Business Day Start Time tunable parameters to the value specified by the contracting region.  R5-19.6 Create Subscription Version – Business Hours and Days Selection Mismatch  NPAC SMS shall if the old and new service provider business hours and days do not match set the subscription version ~~timer~~ business type to the shorter business hours and days. |  | FRS | Jul LNPAWG (Ottawa), move to next doc category. |  |  | |
| NANC 292 | | BellSouth 7/7/99 | FRS Documentation Update – Query SV Valid Statuses  Requirement RR5-39 should be modified to be more in line with the current implementation of the NPAC SMS.  The requirement as written states:  RR5-39 Query Subscription Version - View Old or Active Only  NPAC SMS shall allow NPAC Customers who are neither the old nor the new Service Provider to view only those Subscription Versions for a ported TN with a status of active or old.  The proposed correction to the wording is:  RR5-39 *(proposed)* Query Subscription Version - View Old, *Partial Failure, Disconnect Pending, Canceled* or Active Only  NPAC SMS shall allow NPAC Customers who are neither the old nor the new Service Provider to view only those Subscription Versions for a ported TN with a status of active, *partial-failure, disconnect-pending, canceled* or old. |  | FRS | Jul LNPAWG (Ottawa), group O.K. with this. Move to next documentation release category.  Note: The inclusion of canceled conflicts with NANC 87. |  |  | |
| NANC 301 | | LNPA-WG 1/12/00 | NPAC Monitoring of SOA and LSMS Associations via NPAC TCP Level Heartbeat (transport layer)  Same as NANC 299, but using the TCP Keepalive feature (transport layer) instead of an application level heartbeat.  The requested functionality of this change order *“NPAC Monitoring of SOA and LSMS Associations via Heartbeat”* can be accomplished using the TCP Keepalive feature. Since no data flows across an idle TCP connection (i.e., between the two TCP modules), the TCP Keepalive feature can be used to poll the other end of an idle connection to make sure the connection is still available (active). This will also alleviate any situations of a half-open connection.  With this change order, the NPAC SMS is being required to enable the TCP Keepalive feature. The NPAC SMS will serve as the server side, and the local system (SOA or LSMS) will serve as the client side. Optionally (but recommended), the Service Provider can enable the TCP Keepalive feature to ensure an active connection. If only the NPAC SMS were to enable the TCP Keepalive feature, a situation exists where the local side may not detect an inactive connection (and therefore not try to re-associate). If the local system does enable the TCP Keepalive feature, they would also detect an inactive connection (and accordingly attempt to re-associate with a new bind request). In this example, the length of time that the Service Provider is un-available will be greater if the local side has not enabled the TCP Keepalive feature since they are relying on NPAC Personnel to contact them  (continued) |  | FRS/IIS | Pure Backwards Compatible: YES  Utilizing the TCP Keepalive feature of the HP-UX OTS stack software (otsadm) involves starting the stack software with the -K option. With this feature enabled, all subsequent TCP connections initiated from OTS/RFC1006 will have the TCP\_KEEPALIVE option set, which allows TCP to inform OTS/RFC1006 of lower layer failures. With the TCP Keepalive feature turned on, the OTS stack software uses the tcp\_keepstart, tcp\_keepfreq, and tcp\_keepstop system tunables to execute the keep-alive message. The tcp\_keepstart tunable is the number of seconds that a TCP connection can be idle before keep-alive packets will be sent attempting to solicit a response. When a packet is received, keep-alive packets are not longer sent unless the connection is idle again for this period of time. The tcp\_keepfreq tunable is the interval in seconds at which keep-alive packets will be sent on a TCP connection once they have been started. The receipt of a packet will stop the sending of keep-alive packets. The tcp\_keepstop tunable is the number of seconds keep-alive packets will be sent on a TCP connection without the receipt of a packet after which the connection will be  (continued) | TBD | TBD | |
| NANC 301 (con’t) | | about an aborted association (rather than having their own system recognize the abort and initiate a new bind request to the NPAC SMS).  Additionally, the NPAC SMS needs to provide logging functionality (which is documented in change order NANC 219). This is accomplished by enabling the TCP Keepalive feature of the OTS stack software such that it recognizes an inactive association and issues an abort to the application for a given association. Since an inactive connection will appear as a stack abort to the server (in this case the NPAC SMS), logging will be done as an abort from a client (in this case the local system).  In summary, the requested change is for the NPAC SMS to enable the TCP Keepalive feature on all TCP connections initiated from OTS/RFC1006.  The TCP Keepalive feature was introduced to the HP OTS stack software in November 1999 (patch PHNE\_17376). Jan 00, Jim loaded the stack patch on a test box at ESI. He worked with Beth to test the patch. The TCP level heartbeat worked fine one-way (from NPAC to local system not supporting the patch). Beth is planning on loading the patch on her local system and testing the other way as well. It is believed that enabling the TCP Keepalive will solve many of the association control problems that have experienced in the production environment.  Feb 00, LNPA-WG meeting, the group proposes that we have a con call to discuss this further. The desire is to have this functionality implemented prior to R4. | | |  | dropped and an abort message sent up the stack to the application. The setting of these tunables apply across a machine for all TCP connections.  The values of the tcp\_keepstart, tcp\_keepfreq, and tcp\_keepstop must be determined by the LNPA-WG. The default values are tcp\_keepstart=7200 secs, tcp\_keepfreq=75 secs, and tcp\_keepstop=600 secs. In order to detect an inactive associations as soon as possible, the following values have been suggested based on current testing efforts: tcp\_keepstart=60 secs, tcp\_keepfreq=60 secs, and tcp\_keepstop=60 secs.  New requirement:  Req 1 – NPAC SMS Monitoring of SOA and Local SMS Connections via a TCP Level Heartbeat  The NPAC SMS shall be capable of supporting a TCP Level Heartbeat via the TCP Keepalive Feature. | | | |

# Release 3.0.0

| **Release 3.0.0 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 98 | | Lockheed Martin Team 5/22/97 | TSAP data required in FRS Table 3-4 in the FRS, NPAC Customer Network Address Data Model, indicates that the TSAP is a required field, like the other selectors. The table should be changed to make the TSAP field optional due to the fact that some SOA/LSMS vendor implementations do not use TSAP addresses. | Low | FRS | Backwards Compatible: YES  Both vendors currently have a work around to the problem that allows the TSAP address to be optional. | Low | Recompile | |
| NANC 109 | | NANC6/9/97 | Number Pooling Number Pooling has been requested for a future NPAC release. E-mail has been sent to the group to begin initial discussion. | High | FRS | Backwards Compatible: NO This change has been requested for a future release. Pending INC decision. A separate sub-committee has been formed to address National Number Pooling.  During August T&O (Detroit), it was requested that this change order be included when the Mass Update by LNP Type change order (NANC 216) is submitted to the LLCs.  Dec Natl N Pool (Las Vegas), the documentation suite (FRS, IIS, GDMO, ASN.1) was finalized. Submission by the LLCs to Lockheed is expected on 12/28/98. Move to Release 3.0 list.  **Aug 10/00** – research by CMA indicated that this change order was rolled into NANC 109 which was part of Release 3.0 |  |  | |
| NANC 175 | | **ESI**  11/15/97 | Timestamp default when not set Lockheed uses a 'not specified' format 00000000000000.0Z to indicate a timestamp that has not been set, Perot uses 1/1/90 00:00. There is currently no reference in the IIS or FRS as to what the default should be.  This change order is related to NANC 240. | High | IIS | Backwards Compatible: YES  Submitter requests that the value 00000000000000.0Z be used and documented in the IIS.  Rec. X.208: 1988, Specification of ASN.1 references ISO 8601 for the established date format. ISO 8601 defines acceptable date formats. However per ISO 8601, all zeros (0) for year, month, etc. are invalid values. Therefore, by the definition of the ISO standard 00000000000000.0Z is an invalid date/time stamp. The IBM stack will not allow the .0Z date/time stamp since they conform to the specifications. To comply with the .0Z date/time stamp would require a IBM TMN stack change.  Lockheed initial feeling is that to conform to the 1/1/90 00:00 timestamp would not be a huge effort but would require database changes.  The NPAC vendors will not change in release 1 timeframe. Different solutions were discussed and it was decided that conditional packages for the timestamps should be added to the GDMO.  Sep LNPA-WG (Chicago), the group decided to delete this open change order, but need to make documentation only change, as to the .0Z default value. | Low | Med | |
|  | |  |  |  |  |  |  |  | |
| NANC 216 | | AT&T 5/15/1998 | Mass Update by LNP Type  It has been requested that LNP Type be added as a selection criteria for subscription versions to the mass update functionality. |  | FRS | Backwards Compatible: YES  Discussed on 7/8/98 telecon. This would be a complement to either Number Pooling or NANC 68 (whichever is implemented first). The SPs would like this implemented as soon as possible.  During 7/15/98 face-to-face T&O meeting, Lockheed reported that too far along in the process of the “new” 2.0 release, to include this change order. Possibly include with the National N Pool release.  During August T&O (Detroit), it was requested that this change order be included when the National Number Pooling change order (NANC 109) is submitted to the LLCs.  Dec Natl N Pool (Las Vegas), The functionality requested in this change order has been rolled into National Pooling. Refer to the Pooling FRS requirements, B-760 and B-761. Move to Release 3.0 list. | Y | N/A | |
| NANC 237 | | ESI  9/15/98 | Duplicate PSAP and Key List for different NSAP  Related to ILL 181-2.  The NPAC SMS Administrative GUI does not support a duplicate PSAP and Key List for different NSAP addresses. |  |  | Backwards Compatible: YES  Oct LNPAWG (Kansas City), this is related to ILL-181. However, ILL-181 was closed in Documents Version 1.9. Currently, we have a work around for this problem, but the GUI does not allow multiple copies of the same PSAP, even with different NSAP addresses.  This is an issue for any SP on a distributed platform with duplicate PSAPs for different NSAPs.  Jim stated that this is related to ILL-181 because the NPAC now uses PSAP as a primary key along with the SPID (instead of just the SPID). This change order should be implemented to close the loop on the work around, that is listed in ILL-181 Rev 2.  Leave on open list for now, since no urgency, and not sure who is going to pay for this.  Sep LNPA-WG (Chicago), the group decided to delete this open change order, but need to check if any documentation updates need to be first. The CMA will look into this. | Med |  | |
| NANC 243 | | National Number Pooling Sub-Committee  10/29/98 | Removal of NPA-NXX or LRN from NPAC  The NPAC SMS and the FRS need to be updated to further define the condition where NPA-NXXs or LRNs can be deleted from the NPAC SMS.  The current NPAC SMS functionality and the FRS states, "*shall allow the removal…only if no Subscription Versions, except for Old or Cancelled Subscription Versions exist…*".  The correct behavior should be "…*except for Old with NO Failed SP List or Cancelled…*". |  | FRS | Backwards Compatible: YES  Nov LNPAWG (Dallas), yes this is a problem that needs to be fixed. This has been moved to the “Accepted” category, awaiting prioritization.  Dec LNPAWG (Atlanta), this has been grouped with National Number Pooling (need consistent behavior for SVs that are defined for Blocks). Detailed requirements will be written up and distributed by the CMA. Move to Release 3.0 list. |  |  | |
| NANC 244 | | National Number Pooling Sub-Com’ttee  11/4/98 | Removal of an Old NPA-NXX involved in an NPA Split at the end of PDP  The NPAC SMS does NOT automatically remove an Old NPA-NXX involved in an NPA Split after the end of the permissive dialing period has been reached. Currently, this is handled via M&P, where the Code Holder either calls the NPAC to have this data deleted, or sends up an NPA-NXX delete request for the Old NPA-NXX.  Jan LNPAWG (Atlanta), John agreed to e-mail the specific requirement to the group, for the desired behavior, (Removal of an Old NPA-NXX involved in an NPA Split at the end of PDP).  The proposed new requirement is shown below (taken from very similar words for Number Pooling NPA-NXX-X "auto deletion" of an Old NPA-NXX at the end of PDP). With the proposed change below, the NPA-NXX will have identical behavior to the Number Pooling NPA-NXX-X (i.e., auto delete of the Old at the end of PDP).  Req-1 NPA Splits - Deletion of Old NPA-NXX at the end of permissive dialing  NPAC SMS shall automatically delete the old NPA-NXX from the Portable NPA-NXX Information in the NPAC, upon reaching the end of the permissive dialing period for the old NPA-NXX involved in an NPA Split. |  | FRS | Backwards Compatible: YES  The NPAC shall delete the Old NPA-NXX, and broadcast a delete request to the Service Providers, upon reaching the end of PDP.  Nov LNPAWG (Dallas), spirited discussion by the group (got into potential problems with municipal splits like Minny/St.Paul).  Move to accepted, even though we haven’t decided on the actual solution, and we need to perform further analysis. We may possibly have a flag per NXX, so when setting up a split, the NPAC Personnel can flag or not flag each NXX for deletion at the end of PDP. Also, the NPAC will broadcast the deletes.  Dec Natl N Pool (Las Vegas), attempted to reach resolution on implementation in order to include with NANC 109. However, actual solution still needs discussion, so it will be discussed at Jan LNPAWG meeting.  Jan LNPAWG (Atlanta), group decided that auto delete was preferred method. Not sure of the need for the flag, so it was dismissed.  John will send out new words. Marilyn will submit request to LLCs from WG. Move to R3 list. |  |  | |
| NANC 251 | | National Number Pooling Sub-Com’ttee 12/17/98 | Documentation Change to the GDMO Behavior  The following discrepancies should be updated in the GDMO documentation.  Under the subscriptionVersion object (20.0 LNP subscription Version Managed Object Class):  \*Correct the definition in behavior to read:  subscriptionVersionBehavior BEHAVIOUR  DEFINED AS !  Local SMS Managed Object **used for the NPAC SMS**  **to Local SMS interface.**  Under the subscriptionVersionNPAC object (21.0 LNP NPAC Subscription Version Managed Object Class):  \*Correct the disconnect complete time stamp description to read:  When the subscription version is **being**  disconnected **and the first**  **successful response is received from the Local SMS**  **to the subscription**  **version disconnect request,** the  subscriptionDisconnectCompleteTimeStamp  is updated with the current **date and** ~~system~~ time.  \*Correct the failed SP List description to read:  When a subscription version **broadcast is not**  **successful to all**  **service providers,** the subscriptionFailed-SP-List is  populated with a list of the failed service providers.  Under Attribute 48 – subscriptionActivationTimeStamp  \*Correct behavior to read:  This attribute is set by the NPAC SMS as the **current** time  and date that the subscription version activation request was  received from the new service provider.  **(continued)** |  | GDMO/IIS | Backwards Compatible: YES  Jan LNPAWG (Atlanta), group requested that the actual changes be identified in the text (i.e., bold).  Feb LNPAWG (San Ramon), updated several points for the change order (disconnect time stamp, subscriptionActivationTimeStamp, subscriptionVersionModifyAction, subscriptionVersionNewSP-Create). These are identified by yellow hightlighting. |  |  | |
| NANC 251 (con’t) | | Continued | Under Action 1 – lnpDownload  \* Correct this behaviour sentence to read:  Time range requests  will be limited to a tunable range specified in the NPAC SMS  **and must be specified in Coordinated Universal Time (UTC)**.  Under Action 2 – lnpRecoveryComplete  \* Add to behaviour:  **The NPAC SMS will queue up all new events while the Local SMS is**  **in recovery mode and send them to the Local SMS after responding**  **with the lnpRecoveryComplete action reply.**  Under Notification 11 - subscriptionVersionAttributeValueChange  \* Correct behaviour sentence to read:  Failed lists will also be potentially sent for subscription versions  with statuses of **active, failed, partial-failure,** disconnect-pending  and old.  Under Action 7 – subscriptionVersionModifyAction, the subscriptionWSMSC-DPC and SSN should be moved from the current list of attributes and instead put in a paragraph that states:  **The new service provider may specify modified valid values for the**  **following attributes, when the service provider’s “SOA WSMSC DPC**  **SSN Data” indicator is TRUE, and may NOT specify these values when**  **the Indicator is FALSE:**  subscriptionWSMSC-DPC  subscriptionWSMSC-SSN  Under Action 11 – subscriptionVersionNewSP-Create ~~subscriptionVersionCreateAction~~, the subscriptionWSMSC-DPC and SSN should be moved from the list of required attributes and instead put in a paragraph that states:  **The new service provider must specify valid values for the following**  **attributes, when the service provider’s “SOA WSMSC DPC SSN Data”**  **indicator is TRUE, and must NOT specify these value when the indicator**  **is FALSE:**  **~~If the SOA WSMSC DPC SSN Data Indicator is set in the service~~**  **~~provider's profile, the following attributes should be provided:~~**  subscriptionWSMSC-DPC  subscriptionWSMSC-SSN | | |  |  |  | |
| NANC 265 | | LNPA WG 2/1/99 | Documentation Change for Definition of Time  All documentation needs to be evaluated for “time definitions” as defined in NANC 264, so that going forward, a consistent view of “time” is shown in all documentation. |  | FRS/IIS/GDMO | Backwards Compatible: YES  Mar LNPAWG (Denver), group understands the need to have a consistent view of “time”.  CMA will go back through all documentation, and identify, evaluate, and modify, all things where time is ambiguous, and sync up anything where the NPAC is doing something based on time. Once identified, these need to be brought back up to the group.  This will be put into the queue of CMA updates to the FRS/IIS/GDMO. No date has been scheduled.  Oct LNPAWG (KC), reviewed separate write-up, and group accepted updates. Move to next doc category. |  |  | |
| NANC 269 | | National Number Pooling Sub-Com’ttee  3/16/99 | Documentation change for Bulk Data Download  While reviewing the Natl N Pool test cases, it was noted that the bulk data download functionality for Time Range and NPA-NXX Range, is not documented in the FRS.  It has been requested by the Sub-Committee to update this information in the FRS.  FRS  Section 3.9 Bulk Data Download Functionality (new section) Req 3.9.1 Bulk Data Download – File Creation NPAC SMS shall provide a mechanism that allows a Service Provider to recover network data and subscription data in file format.  Req 3.9.2 Bulk Data Download – File Naming Convention  NPAC SMS shall follow the file naming convention as described in Appendix E. Req 3.9.3 Bulk Data Download – File Format NPAC SMS shall follow the file format as described in Appendix E.  Req 3.9.4 Bulk Data Download – Selection Criteria for File Creation  NPAC SMS shall allow network data only, subscription data only, or both, as selection criteria for bulk data download file generation.  (continued) |  | FRS | Backwards Compatible: YES  Apr LNPAWG (DC), group O.K. with this.  This will be put into the queue of CMA updates to the FRS. No date has been scheduled.  Aug LNPAWG (Portland), reviewed the seven new requirements for the new section (3.9 BDD functionality). Will add another requirement to capture the automatic placement of the file into the requesting SP’s FTP sub-directory.  Sep LNPAWG (Chicago), reviewed new requirement (req 3.9.8). It was requested to add a note to Appendix E to indicate that the current functionality uses the activation timestamp criteria, and this will NOT include subsequent modifications made within the activation timestamp range. For example, an SV was activated three months ago, then a modify active request was issued during the 12 hours of an SP’s downtime. When the SP requests a bulk data download for those missing 12 hours, the modify active request will NOT be included in the BDD file.  Oct LNPAWG (KC), group accepted updates. Move to next doc category. |  |  | |
| NANC 269 (con’t) | | Continued | Req 3.9.5 Bulk Data Download – Required Selection Criteria for Network Data File Generation  NPAC SMS shall require, as selection criteria for network bulk data download file generation, a Service Provider filter of either a single Service Provider ID or ‘All Service Providers’.  Req 3.9.6 Bulk Data Download – Required Selection Criteria for Subscription Data File Generation  NPAC SMS shall require, as selection criteria for subscription bulk data download file generation, a Service Provider filter of either a single Service Provider ID or ‘All Service Providers’, and a start NPA-NXX–station (10 digits).  Req 3.9.7 Bulk Data Download – Optional Selection Criteria for Subscription Data File Generation  NPAC SMS shall accept, as optional selection criteria for subscription bulk data download file generation, an end NPA-NXX-station (10 digits), a start activation date and time, and an end activation date and time.  Req 3.9.8 Bulk Data Download – FTP Sub-Directory  NPAC SMS shall automatically put the subscription bulk data download file into the FTP sub-directory of the Service Provider, based on SPID, that requested the creation of the subscription bulk data download file. |  |  |  |  |  | |
| NANC 270 | | National Number Pooling Sub-Com’ttee  3/16/99 | Documentation change for Re-Send  While reviewing the Natl N Pool test cases, it was noted that the re-send functionality is not documented in the FRS. It has been requested by the subcommittee to update this information in the FRS.  Section 5.1.2.2.7 Subscription Version Resend  Existing Requirement (text stays the same, new number is RR5-38.1.1):  RR5-38.1 Resend Subscription Version - Identify Subscription Version  NPAC SMS shall receive the following data from NPAC personnel to identify a ~~failed or partial failure~~ subscription version that contains a Failed SP List with one or more SPIDS, to be resent:  Ported Telephone Number  Or  Subscription Version ID  New Requirement:  RR5-38.1.2 Resend Subscription Version - Identify Multiple Subscription Versions  NPAC SMS shall require NPAC personnel to specify a TN Range (NPA-NXX-xxxx through yyyy, where yyyy is greater than xxxx) to identify multiple ~~failed or partial failure~~ subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. |  | FRS | Backwards Compatible: YES  Apr LNPAWG (DC), remove time range and NPA-NXX range.  This will be put into the queue of CMA updates to the FRS. No date has been scheduled. |  |  | |
| NANC 275 | | Tekelec 3/31/99 | IIS Documentation – Error Flow Diagrams Needed  In section A.1 of the NPAC SMS IIS - NANC Version 2.0.0, it states "The situations under which these errors occur are documented in the message flow diagrams in Appendix B". The message flows defined in Appendix B show successful operations only. Message flows for error situations need to be included.  This change order is a subset of NANC 239, and is therefore being tracked by that change order. |  | IIS | Backwards Compatible: YES  Apr LNPAWG (DC), Tekelec to check internally on this change order (depth and breadth), and report back next month.  May LNPAWG (Baltimore), discussed by group. Need text on notification recovery, that if supported, then the expected NPAC behavior is . Need to describe which things are required and which are optional in the message flows. This is applicable to ONLY the recovery message flows. The CMA will work on the updates as time permits. |  |  | |
| NANC 283 | | TSE 4/30/99 | GDMO Doc Only Change for Business Type and WSMSC  There are three documentation only changes in the current GDMO. The Deleted words are ~~red strikethrough~~, and proposed new text is listed in *larger print italics*.  -- 7.0 LNP Log Record for the Subscription Version New SP Create Request  -- Notification  lnpLogNewSP-CreateRequestRecord MANAGED OBJECT CLASS  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :  1992":eventLogRecord;  CHARACTERIZED BY  lnpLogNewSP-CreateRequestPkg;  CONDITIONAL PACKAGES  subscriptionTimerTypePkg PRESENT IF  !present if the New SP SOA supports timer type!,  subscriptionBusinessTypePkg PRESENT IF  !present if the New SP SOA supports ~~timer type~~*business type*!;  REGISTERED AS {LNP-OIDS.lnp-objectClass 7};  (continued) |  | GDMO/IIS | Backwards Compatible: YES  May LNPAWG (Baltimore), group O.K. with this change order. Move to next documentation release, but not incorporated into IIS and GDMO until a functional change to GDMO. |  |  | |
| NANC 283 (con’t) | | continued | -- 11.0 LNP New Service Provider Subscription Version Create  subscriptionVersionNewSP-Create ACTION  subscriptionVersionNewSP-CreateBehavior BEHAVIOUR  DEFINED AS !  Preconditions: This action is issued from an lnpSubscriptions  object. Creates can be performed provided there is only one  currently active subscription or no subscription version in the  NPAC; otherwise an action failure will be returned.  The new service provider must specify valid values for the  following attributes:    subscriptionTN or a valid subscriptionVersionTN-Range  [snip]  subscriptionPortingToOriginal-SPSwitch  The new service provider may specify valid values for the  following attributes:  subscriptionEndUserLocationValue  subscriptionEndUserLocationType  subscriptionBillingId  *The new service provider must specify valid values for*  *the following attributes, if the ‘NPAC SMS New*  *Functionality’ for ‘SOA WSMSC DPC SSN Data’ is set in*  *their service provider profile on the NPAC SMS:*  *subscriptionWSMSC-DPC*  *subscription WSMSC-SSN*  (continued) | |  |  |  |  | |
| NANC 283 (con’t) | | continued | -- 7.0 LNP Subscription Version Modify Action  subscriptionVersionModify ACTION  [snip]  New service providers can only modify the following attributes  for pending or conflict subscription versions:  subscriptionLRN  [snip]  subscriptionBillingId  *The WSMSC DPC and SSN can only be modified if the*  *‘NPAC SMS New Functionality’ for ‘SOA WSMSC*  *DPC SSN Data’ is set in their service provider profile*  *on the NPAC SMS.*  [snip]  New service providers can only modify the following attributes  for active subscription versions:  subscriptionLRN  [snip]  subscriptionBillingId  *The WSMSC DPC and SSN can only be modified if the*  *‘NPAC SMS New Functionality’ for ‘SOA WSMSC*  *DPC SSN Data’ is set in their service provider profile*  *on the NPAC SMS.* | |  |  |  |  | |
| NANC 284 | | ESI 5/3/99 | GDMO Doc Only Change for Object, Action, Notification errors  There are five documentation only changes in the current GDMO. The Deleted words are ~~red strikethrough~~, and proposed new text is listed in *larger print italics*.  -- 21.0 LNP NPAC Subscription Version Managed Object Class  subscriptionVersionNPAC MANAGED OBJECT CLASS  [snip]  subscriptionVersionNPAC-Behavior BEHAVIOUR  DEFINED AS !  [snip]  The Service Provider SOA can M-SET or use an M-ACTION to modify attributes associated with pending~~,~~ *or* conflict~~, or partial-failed~~ subscription versions (SOA Management Association Function).  Attempts to modify an active, sending, failed, partial-~~fialed~~*failed*, canceled, cancel-pending, disconnect-pending or old version using M-SET will result in an access denied error.  [snip]  Upon~~e~~ subscription version creation, the subscriptionOldSP-DueDate and subscription~~V~~*N*ewSP-DueDate must match.  (continued) |  | GDMO/IIS | Backwards Compatible: YES  May LNPAWG (Baltimore), group O.K. with this change order. Move to next documentation release, but not incorporated into IIS and GDMO until a functional change to GDMO.. |  |  | |
| NANC 284 (con’t) | | continued | -- 4.0 LNP Subscription Version Cancel Action  subscriptionVersionCancel ACTION  subscriptionVersionCancelBehavior BEHAVIOUR  DEFINED AS !  Postconditions: The service provider has set the version  status to cancel-pending if the ~~old~~ other service provider  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- 15.0 Notification Recovery Action  lnpNotificationRecovery ACTION  lnpNotificationRecoveryBehavior BEHAVIOUR  DEFINED AS !  Postconditions: After this action has been executed by  the SOA or LSMS specifying recovery, the NPAC SMS will  forward the notifications that occurred in the time range  specified for the requesting system (SOA or LSMS*)* for  the primary or associated SPID specified in the  [snip]  The recovery of the SOA and LSMS notifications are  independent requests. Notifications can be recovered  until the*y* are purged from the database.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  -- 7.0 LNP Subscription Version Local SMS Action Results  subscriptionVersionLocalSMS-ActionResults NOTIFICATION  subscriptionVersionLocalSMS-ActionResultsBehavior BEHAVIOUR  DEFINED AS !  This notification contains the results of a  subscriptionVersionLocalSMS-Create action from a Local  SMS. It contains the id of the create action, the success  or failure of the action, the completion time and ~~the~~ an  optional list of failed subscription TNs and error codes. |  |  |  |  |  | |
| NANC 288 | | TSE  5/13/99 | GDMO Changes for 2.x from 3.x updates for Failed SP List  The Failed-SP-List can be on more than just a subscription version with failed or partially failed status. Therefore the CONDITIONAL PACKAGE wording should be changed.  *Existing:*  -- 10.0 LNP Log Record for the Subscription Version Status Attribute Value  -- Change Notification  lnpLogStatusAttributeValueChangeRecord MANAGED OBJECT CLASS  DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 :  1992":eventLogRecord;  CHARACTERIZED BY  lnpLogStatusAttributeValueChangePkg;  CONDITIONAL PACKAGES  subscriptionVersionAttributeValueChangeFailed-SP-ListPkg PRESENT IF  !*the version status is failed or partially failed*!,  subscriptionStatusChangeCauseCodePkg PRESENT IF  !the *the* version status is set to conflict by the old service  provider!;  REGISTERED AS {LNP-OIDS.lnp-objectClass 10};  lnpLogStatusAttributeValueChangePkg PACKAGE  BEHAVIOUR  lnpLogStatusAttributeValueChangeDefinition,  lnpLogStatusAttributeValueChangeBehavior;  ATTRIBUTES  subscriptionVersionAttributeValueChangeInfo GET,  accessControl GET;  ;  (continued) |  | IIS/GDMO | Backwards Compatible: YES  Jul LNPAWG (Ottawa), group O.K. with this change order. Move to next documentation release, but not incorporated into IIS and GDMO until a functional change to GDMO. | NANC 288 | TSE  5/13/99 | |
| NANC 288 (con’t) | | continued | lnpLogStatusAttributeValueChangeDefinition BEHAVIOUR  DEFINED AS !  The lnpLogStatusAttributeValueChangeRecord class is the managed  object that is used to create log records for the  subscriptionVersionStatusAttributeValueChange Notification.  !;  lnpLogStatusAttributeValueChangeBehavior BEHAVIOUR  DEFINED AS !  This log record can be used by any CME wanting to log the  subscriptionVersionStatusAttributeValueChange Notification.  !;  --------------------------------------------  New:  CONDITIONAL PACKAGES  subscriptionVersionAttributeValueChangeFailed-SP-ListPkg PRESENT IF  !the version broadcast failed!,  subscriptionStatusChangeCauseCodePkg PRESENT IF  !the ~~the~~ version status is set to conflict by the old service  provider!;  (continued) | | |  |  |  | |
| NANC 288 (con’t) | | continued | Missing sentence end.  Existing:  -- 20.0 LNP subscription Version Managed Object Class  …  subscriptionVersionBehavior BEHAVIOUR  DEFINED AS !  Local SMS Managed Object  …  New:  …  subscriptionVersionBehavior BEHAVIOUR  DEFINED AS !  Local SMS Managed Object used for the NPAC SMS to Local SMS interface.  …  The following UTC specification should be added.  Existing:  -- 1.0 LNP Download Action  …  lnpDownloadBehavior BEHAVIOUR  DEFINED AS !  …  Time range requests  will be limited to a tunable range specified in the NPAC SMS.  …  New:  Time range requests  will be limited to a tunable range specified in the NPAC SMS  and must be specified in Coordinated Universal Time (UTC). | | |  |  |  | |
| NANC 289 | | TSE  5/27/99 | R3 Requirements Update – documentation only – from Pooling Assumptions walk-thru  During the Pooling Assumptions call on 5/26, several requirement updates were discussed. Numbers were assigned to be the appropriate requirement numbers according to where the new requirements should be inserted in the documentation.  Remove SV-428.1 - 428.7.  Remove "partial failure/failed" from SV230, SV240, SV270, and SV280. (to be added to existing change order 227)  Add N-270  The NPAC SMS shall reject a request to delete (de-pool) an NPA-NXX-X if there is an SV with a status of sending as a result of a disconnect request.  Add SV-429  Once an NPA-NXX-X-Deletion has begun, the NPAC SMS shall ensure at completion that no SVs exist with LNP Type of POOL.  In addition, the Pooling Assumption call on 5/19 made the following updates:  Added text <> to N-365  NPAC SMS shall provide to NPAC Personnel only, an indicator on the NPAC Administrative Interface <only after a query> if an associated Block Create Scheduled Event, that has not been executed, exists in the NPAC SMS. |  | Pooling req’ments | Backwards Compatible: YES  Jul LNPAWG (Ottawa), move to next doc category.  Aug LNPAWG (Portland), need to remove B-169.1.3 since the error message references SV-428.x, and all of these requirements have been removed. |  |  | |
| NANC 295 | | Lockheed Martin 8/19/99 | Documentation Updates to the National Number Pooling requirements, IIS Flows, ASN.1, GDMO  The National Number Pooling documentation needs to be updated based on clarifications by ESI and TSE, and changes to the ASN.1 and GDMO (i.e., 2.0.1 and 2.0.2) since the release of the most recent Number Pooling ASN.1 and GDMO. |  | FRS/IIS/ASN.1/GDMO | Backwards Compatible: YES  Sep LNPAWG (Chicago), this will be posted to the web in the near future. |  |  | |
| NANC 296 | | TSE 8/24/99 | Documentation Change for Central Standard Time  With the definition specified in NANC 264 (definition of time in FRS and IIS), the following requirements need to be updated:  RR3-13.1 Business Day Start Time - Tunable Parameter  NPAC SMS shall provide long and short Business Day Start Time tunable parameters, which are defined as the start of the business day in Central ~~Standard~~ Time (standard/daylight).  RR3-13.3 Short Business Day Start Time - Tunable Parameter Default  NPAC SMS shall default the short Business Day Start Time tunable parameter to 7:00 AM, Central ~~Standard~~ Time (standard/daylight).  RR3-13.4 Long Business Day Start Time - Tunable Parameter Default  NPAC SMS shall default the long Business Day Start Time tunable parameter to 8:00 AM, Central ~~Standard~~ Time (standard/daylight). |  | FRS | Backwards Compatible: YES  Sep LNPAWG (Chicago), this has been accepted, and will move into the next documentation category. |  |  | |

# Release 3.0.1

| **Release 3.0.1 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 34 | | Perot  3/17/97 | AuditServiceProvIdRange ASN.1 Modification  It has been suggested that serviceProvName be modified to be ServiceProvId. ServiceProvId is guaranteed to be unique. | Medium | IIS ASN.1 | Backwards Compatible: YES  Detailed requirements have been developed.  A request has been made to Lockheed and Perot to provide information on what would occur today if a name were ambiguous.  It has been indicated that the vendors may already use the Service Provider Name if it is submitted in the serviceProvName. | Med / Low | Med / Low  ASN.1 | |
| NANC 35 | | Perot  3/17/97 | ContactPagerPin ASN.1 Modification  In IIS 1.5 contactPagerPIN is a digit string without length. It has been requested that this be bound to the length of 10 as specified in the FRS. | Low | IIS/ ASN.1 | Backwards Compatible: YES  Detailed requirements have been developed.  This is an "OLD" Release 2.0 change order that has been moved into the "Accepted" category, awaiting prioritization.  Sep LNPA-WG (Chicago), the group decided to delete this open change order, but need to make documentation only change, stating that the length is not bound, but that the NPAC will truncate any digits greater than 10. The contact information structure should be documented for this. | Low | Low | |
| NANC 146 | | Bellcore 8/27/97 | SP Contact Data Handling Currently there is no way to delete or blank out Service Provider contact data in the profile. The attributes do not have a NULL or absent setting. The ASN.1 should be changed for the address information to be a choice of the address information or NULL. | Medium | IIS/ASN.1 | Backwards Compatible: YES  The Lockheed implementation requires that all attributes be sent at one time for modify, delete, or addition of contact data. If a contact address is not specified it is assumed to be deleted and is removed from the NPAC database.  Perot would also require a change in the ASN.1 and requirements. A work around could be to over-write the fields with spaces that would give the appearance of empty records, but if printed, the empty records (with blanks) would print.  The ASN.1 will be changed.  This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization  Sep LNPA-WG (Chicago), Telcordia agreed to delete this open change order, since they made changes to work around this issue. The documentation should be updated to indicate that the current behavior is not within standards. | Med / Low | Med / Low | |
| NANC 174 | | **NANC T&O 11/14/97** | Removal of SOA and LSMS combined association  The ASN.1 for system type would be changed from:  SystemType ::= ENUMERATED {  soa(0),  local-sms(1),  soa-and-local-sms(2),  npac-sms(3) --value is only valid for AccessControl definition  }  to:  SystemType ::= ENUMERATED {  soa(0),  local-sms(1),  npac-sms(3) --value is only valid for AccessControl definition  } | Medium | **IIS/ASN.1** | Backwards Compatible: YES  ASN.1 Change. Lockheed will need to change code to remove this functionality. This change order is also linked to ILL 181.  Sep LNPA-WG (Chicago), the group decided to delete this open change order, but need to make documentation only change, stating that it is assumed SPs would NOT be using combined associations. | Med | Recompile | |
| NANC 189 | | ESI  1/19/1998 | Service Provider Allowable Functions Modification NPAC FRS requirement R4-15.1 - where it states - NPAC SMS shall allow Service Provider data to be modified or added to the Service Provider data with the exception of the data listed in table 3-2.The Allowable Functions is part of table 3-2. However, in the GDMO for the IIS the allowable functions are defined as GET-REPLACE.  Functionality needs to be verified by both NPAC vendors to determine the actual functionality that was implemented and the action that needs to be taken. | Low | IIS/ FRS | Backwards Compatible: YES  Lockheed and Perot to verify their implementations. Specifically vendors must determine if they allow allowable functions to be changed over the CMIP interface and what the behavior would be if the data were changed. For example, would the association be aborted or would the change take effect for future associations?  Lockheed does not support the changing of the data over the CMIP interface. Perot does support this functionality. The group determined that the FRS takes precedence. This functionality is not anticipated to be needed in the future for live operations. The IIS GDMO should be changed to GET from GET-REPLACE for this attribute.  This change order is a low priority.  Sep LNPA-WG (Chicago), the group agreed to make this a doc-only change order. The GDMO change from GET-REPLACE to GET should be done. |  |  | |
| NANC 239 | | National Number Pooling Sub-Com’ttee 9/25/98 | Document the current process for Resynchronization  While reviewing the Natl N Pool requirements, it was noted that the resynchronization functionality is NOT documented in the FRS.  It has been requested by the Sub-Committee to update this information in the FRS.  Also make sure resync functionality for Time Range and NPA-NXX Range, is also documented.  In recovery mode, a full failure SV is NOT sent to the LSMS.  The NPAC uses the Last Modified Timestamp to determine if the SV falls within the resyncing timerange.  3/31/99, Tekelec request. NPAC-LSMS Resynchronization procedure needed when resource limitation exists.  In Appendix B of the NPAC SMS IIS - NANC Version 2.0.0 in section B.7.1, there needs to be a message flow added which describes the proper action(s) to be taken when the NPAC sends a CMISE primitive error: processingFailure/resourceLimitation instead of a successful M-ACTION response with lnpRecovery data.  This change order is a superset of NANC 275. |  | FRS/IIS | Backwards Compatible: YES  This will be put into the queue of CMA updates to the FRS/IIS. No date has been scheduled.  Apr LNPAWG (DC), another request from the team is to add all five return codes (in M-ACTION reply), and provide some suggested behavior.  Tekelec to look at the CMIP errors, and see if those are needed as well.  May LNPAWG (Baltimore), reported discussion on telecon call, 4/20. The CMA will work on the updates as time permits.  Jul LNPAWG (Ottawa), Aug LNPAWG (Portland), Sep LNPAWG (Chicago), reviewed separate document write-up. See revised version.  Oct LNPAWG (KC), group accepted updates. Move to next doc category. |  |  | |
| NANC 271 | | National Number Pooling Sub-Com’ttee  3/24/99 | Documentation change for Single TN Audit  While reviewing the Natl N Pool test cases, it was noted that the audit functionality for a single TN is not documented in the GDMO or IIS.  It has been requested by the Sub-Committee to update this information in the GDMO and IIS. |  | GDMO/IIS | Backwards Compatible: YES  The proposed changes are listed in *larger print italics*.  -- 19.0 LNP Subscription Audit Managed Object  subscriptionAudit MANAGED OBJECT CLASS  subscriptionAuditBehavior BEHAVIOUR  DEFINED AS !  The subscriptionAuditRequestingSP is the id of the service provider who requested the audit.  *The subscriptionAuditTN-Range is the range of TNs to be audited. If only a single TN is to be audited, the ending TN station should be set to the value of the starting TN station.*  (continued) |  |  | |
| NANC 271 (con’t) | | Continued |  | The NPAC SMS will be required to set the number of TNs that will be audited in the subscriptionAuditNumberOfTNs attribute based on the NPAC SMS audit request criteria.  =====================================================  -- 59.0 LNP Subscription Audit TN Range  subscriptionAuditTN-Range ATTRIBUTE  …  subscriptionAuditTN-RangeBehavior BEHAVIOUR  DEFINED AS !  This attribute is used to specify the TN range to be used for  the subscription audit. The stop TN in the range must be  greater than *or equal to* the start TN in the range.  !;  =====================================================  IIS Part 2  Flow B.2.1 Soa Initiated Audit (Step a)   1. The SOA sends a M-CREATE request to the NPAC SMS, requesting an audit. The SOA must specify the following attributes in the request:   subscriptionAuditName - English audit name subscriptionAuditRequestingSP - the service provider requesting the audit subscriptionAuditServiceProvIdRange - which service provider or all service providers for audit subscriptionAuditTN-Range - TNs to be audited. *If only a single TN is to be audited, specify the ending TN station equal to the starting TN station.*  Apr LNPAWG (DC), group O.K. with this. Move to Accepted List. | | | | | |
| NANC 302 | | CMA 1/24/00 | R3 FRS documentation-only updates  1.  RR5-56 Create Inter-Service Provider Port-to-Original Port – NPAC and SOA After NPA-NXX-X Creation  NPAC SMS shall reject an inter-service provider Subscription Version Create message *where there is no active subscription version for the TN in the NPAC SMS,* or inter-service provider Port-to-Original Subscription Version Create message for a TN within the 1K Block, from NPAC Personnel, a Service Provider SOA via the SOA to NPAC SMS Interface, or Service Provider via the NPAC SOA Low-tech Interface, after the Creation of the NPA-NXX-X, and prior to the existence of the Block in the NPAC SMS~~, where there is no active subscription version for the TN in the NPAC SMS~~. (Previously SV-180)  R5-74.3 Query Subscription Version - Output Data  NPAC SMS shall return the following output data for a Subscription Version query request initiated by NPAC personnel or a SOA to NPAC SMS interface user:  *(need to add the following to the list)*  *1. Broadcast Time Stamp*  *2. Old SP Conflict Resolution Time Stamp*  *3. Download Reason*  (continued) |  |  | Pure Backwards Compatible: YES | N/A | N/A | |
| NANC 302 (con’t) | |  | 2.  Subscription Version Data Model and Number Pool Block Data Model. Change “Disconnect Broadcast Complete Time Stamp” to “Disconnect Complete Time Stamp”, to make consistent with the GDMO.  3.  Add NPA-NXX to filter requirements.  RR3-5 Create Filtered NPA-NXX for a Local SMS  NPAC SMS shall allow a Service Provider to create a filtered NPA-NXX for a given Local SMS, via the NPAC SMS to Local SMS interface and the SOA to NPAC SMS interface, which results in the SMS NOT broadcasting *NPA-NXX,* subscriptions, NPA-NXX-X information or Number Pool Blocks with the filtered NPA-NXX to the Local SMS.  RR3-6 Delete Filtered NPA-NXX for a Local SMS  NPAC SMS shall allow a Service Provider to delete a filtered NPA-NXX for a given Local SMS, via the NPAC SMS to Local SMS interface and the SOA to NPAC SMS interface, which results in the SMS broadcasting *NPA-NXX,* subscriptions, NPA-NXX-X information and Number Pool Blocks with the filtered NPA-NXX to the given Local SMS.  4.  Change SPID reference.  RR9-4 Pooled Number Reports – Block Holder Default Routing Report Page Break  NPAC SMS shall page break the report listed in RR9-3, for every change in new ~~SPID~~*Block Holder ID*. (Previously R-26)  (continued) | | | | | | |
| NANC 302 (con’t) | |  | 5.  Update pending SV retention to include Old SP Due Date.  RR5-1.4 Pending Subscription Retention - Tunable Parameter Expiration  NPAC SMS shall cancel a Subscription Version by setting the subscription version to cancel after a pending Subscription Version has existed in the system for a Pending Subscription Retention number of calendar days subsequent to new Service Provider Due Date, *or old Service Provider Due Date if the new Service Provider Due Date has not been received by the NPAC SMS*.  6.  Update audit requirement to reflect audit behavior when EDR LSMS erroneously contains a Number Pool Block.  RR8-6 Audit Processing for All Subscription Versions in a Number Pooling Environment  NPAC SMS shall process an audit request of an Active-Like Subscription Version(s), by performing the following steps: (Previously A-2)  …  Send audit results and notification of discrepancies, back to requesting SOA, only for the TN Range that was requested, even if other TNs were affected because of EDR Local SMS. The existing notification report will be unchanged, and will not contain block information. *In cases where an EDR Local SMS erroneously contained a Number Pool Block, the NPAC SMS shall send a Number Pool Block delete to the Local SMS, but shall not report any discrepancy back to the requesting SOA for this Local SMS.*  7.  Update incorrect requirement number. Number Pool NPA-NXX-X Holder information notification of First Port, requirement number R3-113, was incorrectly given a “R3-” prefix instead of a “RR3-“ prefix. This requirement will be renumbered to RR3-228 (or the next available requirement number in section 3).  8.  Update incorrect BDD information. In the Subscription Version BDD description, the last sentence should be removed “The files available for LSMS compares will be defined as one NPA-NXX per file”.  (continued) | | | | | | |
| NANC 302 (con’t) | |  | 9.  Update requirement RR3-172 to reflect the actual business requirement and not restrict the implementation. In this case, the GUI may display the Block, but disable the ‘Delete” button, thereby restricting the user from deleting the block (which is the actual business need).  RR3-172 Deletion of Number Pool Block Holder Information – LTI  NPAC SMS shall not allow Service Provider Personnel to request a delete of a Block in the NPAC SMS via the NPAC SOA Low-tech Interface~~, and will return an error message to the LTI user~~. (Previously B-415)  10.  Update incorrect requirement number. In R3, RR5-38.1 became two requirements (numbered RR5-38.1.1 and RR5-38.1.2). However, they were incorrectly numbered RR5-38.1 and RR5-38.2. This created a situation where there are two RR5-38.2 requirements.  11.  Update requirement RR3-90 to explicitly identify the number of days “between”, that is referenced in the requirement.  RR3-90 Addition of Number Pooling NPA-NXX-X Holder Information Effective Date Window– Tunable Parameter  NPAC SMS shall provide a NPA-NXX-X Holder Effective Date Window tunable parameter which is defined as the minimum length of time between the current date *(exclusive)* and the effective date *(inclusive)*, when Creating a NPA-NXX-X in the NPAC SMS. (Previously N-140)  *Note: If the current date is Tuesday the 2nd, the tunable is set to 5 business days, and we’re using short business days (i.e., Monday-Friday), the minimum effective date for the NPA-NXX-X would be Tuesday the 9th.*  12.  Delete requirement RN3-4.10, which becomes obsolete with NANC 244 being implemented in R3.  RN3-4.10 NPA Split - Retention of NPA-NXX(s) involved in an NPA Split  NPAC SMS shall leave the old NPA-NXX(s) involved in a split as valid NPA-NXX(s).  Note: Old NPA-NXX(s) may be deleted via normal processing after the end of permissive dialing. | | | | | | |
| NANC 303 | | CMA 1/24/00 | R3 IIS documentation-only updates  1. (NEW FLOW) – Subscription Version Inter-Service Provider Port of a TN with no currently active Subscription Version – Creation Prior to NPA-NXX-X Effective Date In this scenario, the service provider SOA attempts to create an inter-service provider port with no currently active subscription version request prior to the effective date of the corresponding serviceProvNPA-NXX-X object. The NPAC SMS will reject this request, as an inter-service provider port with no currently active subscription version request cannot be created prior to the effective date of the corresponding serviceProvNPA-NXX-X.  SOA personnel take action to create an inter-service provider port with no currently active subscription version request.   1. The new service provider SOA sends a valid, M-ACTION, subscriptionVersionNewSP-Create request for a TN within an NPA-NXX-X that is not yet effective.   NPAC SMS replies with an error, ‘soa-not-authorized’.  (continued) |  |  | Pure Backwards Compatible: YES | N/A | N/A | |
| NANC 303 (con’t) | |  | 2.  Update flow B.5.6, Subscription Version Query by adding “subscriptionStatusChangeCauseCode (SOA)” to the list of data returned from an SV query.  3.  Update flow B.4.2.10, Scoped/Filtered GET of Network Data.  This scenario shows a request for network data via a scoped/filtered M-GET. ~~In this case, scoping is done from the lnpNetwork object. However, s~~Scoping and filtering can be done from serviceProvNetwork~~, serviceProvLRN, and serviceProvNPA-NXX~~ object~~s~~.  (picture update from “lnpNetwork” to “serviceProvNetwork”.)   1. Action is taken by the Local SMS personnel to request network data via a scoped/filtered M-GET request. 2. The Local SMS sends a scoped/filtered M-GET request to the NPAC SMS. 3. The NPAC SMS sends network data objects (~~serviceProvNetwork,~~ serviceProvNPA-NXX, serviceProvLRN) that pass the scope/filter criteria to the Local SMS that initiated the request. 4. A final M-GET response is sent to the Local SMS that initiated the request once all scoped/filtered network objects have been returned, and will contain no data.   (continued) | | | | | | |
| NANC 303 (con’t) | |  | 4.  Update table 4.1.1, Primary NPAC Mechanized Interface Operations. Exhibit 1. Primary NPAC Mechanized Interface Operations Table  Column 1: Subscription Version Modify.  Column 2: from SOA.  Column 3: M-ACTION: subscriptionVersion Modify  or  M-SET:   on relevant subscriptionVersionNPAC attributes for pending~~, active,~~ and conflict versions.  Column 4: lnpSubscriptions  5.  Update flow B.5.5.1, SubscriptionVersion Conflict and Conflict Resolution by the NPAC SMS, to reflect accurate notification names.   1. NPAC personnel or NPAC SMS take action to set the status of a subscription to “conflict.” 2. NPAC SMS issues M-SET request to update subscriptionVersionStatus to “conflict,” subscriptionConflictTimeStamp, and subscriptionModifiedTimeStamp in the subscriptionVersionNPAC object. 3. NPAC SMS issues an M-SET response. If the M-SET fails, processing for this scenario stops. 4. NPAC SMS issues an M-EVENT-REPORT subscriptionVersionStatusAttributeValueChange to old service provider SOA. 5. The old service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 6. NPAC SMS issues subscriptionVersionStatusAttributeValueChange for status to new service provider SOA. 7. The new service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS.   (continued) | | | | | | |
| NANC 303 (con’t) | |  | 1. NPAC SMS sends a subscriptionVersion~~Status~~AttributeValueChange to set the old service provider’s authorization to “FALSE”. 2. The old service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 3. NPAC SMS sends a~~n~~ *subscriptionVersion*AttributeValueChange to set the new service provider authorization to “FALSE”. 4. The new service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 5. Once the conflict is resolved, NPAC personnel take action to remove the subscriptionVersion from conflict. 6. NPAC SMS issues an M-SET request to update the subscriptionModifiedTimeStamp and the subscriptionVersionStatus to “pending.” 7. NPAC SMS issues an M-SET response. If the M-SET fails, processing for this scenario stops. 8. NPAC SMS issues subscriptionVersionStatusAttributeValueChange for the new status to the old service provider SOA. 9. The old service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 10. NPAC SMS issues subscriptionVersionStatusAttributeValueChange for the new status to the new service provider SOA. 11. The new service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 12. NPAC SMS sends a subscriptionVersion~~Status~~AttributeValueChange to the old service provider’s indicating the authorization has been set to “TRUE”. 13. The old service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS. 14. NPAC SMS sends a~~n~~ *subscriptionVersion*AttributeValueChange to the new service provider indicating the authorization has been set to “TRUE”. 15. The new service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS.   (continued) | | | | | | |
| NANC 303 (con’t) | |  | 6.  Update flow B.5.1.6.4, Subscription Version Create: Failure to Receive Response from New SOA, to reflect accurate notification name. Also update picture to send a “subscriptionVersionStatusAttributeValueChange” to both old and new SP (instead of the current incorrect reference to “subscriptionVersionAttributeValueChange” notification).  This scenario shows action taken by the NPAC SMS after not receiving any concurrence from the new service provider after the “Final Service Provider Concurrence ~~Failure~~ Window.”   1. NPAC SMS receives no *concurrence* ~~occurrence~~ from the new service provider SOA in “Service Provider Concurrence ~~Failure~~ Window” for the pending subscriptionVersionNPAC created by the old service provider SOA.   7.  Remove incorrect description in 4.2.3, Action Scoping and Filtering Support.  For messages sent to any object, the scope and filter will be checked to ensure it is appropriate for that object class.   * All M-ACTIONs that relate to subscriptions and number pool blocks are targeted to lnpSubscriptions. * The ONLY filters allowed by the GDMO for lnpSubscriptions are "equality" and "present" for the single attribute lnpSubscriptionsName. * If any one of the above M-ACTIONs is sent to a subscriptionVerisonNPAC or numberPoolBlockNPAC object you will get a "no such action" error response from that object. * If you send a scoped/filtered M-ACTION whose scope includes objects of class subscriptionVersionNPAC or numberPoolBlockNPAC, you will receive an error "no such action" from each object specified by the filter. ~~This could mean 1 for EVERY subscriptionVersion or numberPoolBlock in the NPAC.~~   (continued) | | | | | | |
| NANC 303 (con’t) | |  | **8.**  Update audit behavior for erroneous block on EDR LSMS. SOA Audit Create for Subscription Versions within a Number Pool Block (previously NNP flow 6.1) In this scenario, the SOA initiates the audit of one or more subscription versions that are within the range of a number pool block. For non-EDR Local SMSs, this involves the subscription version objects. For EDR Local SMSs, this involves both subscription version objects and number pool block objects.  If discrepancies are found, the NPAC SMS will create, modify or delete subscription version and number pool objects, as necessary. The NPAC SMS will report to the SOA the discrepancies with subscription version identifiers. Thus, if a numberPoolBlock object is in error, the discrepancy will be reported as all TNs within the audit range that were also within the block range. *However, in the case where an EDR Local SMS erroneously contains a Number Pool Block, the NPAC SMS will send a Number Pool Block delete to the Local SMS, but will not report any discrepancy back to the requesting SOA for this Local SMS.* Subscription version discrepancies will be reported as usual.  9.  **Update SV status reference in B.4.1.5, NPA-NXX Deletion by the Local SMS, in step 4:**  **Check the subscriptions database to see if subscriptions exist with this NPA-NXX that have a status other than “old” *without a Failed SP List* or “canceled.” Also, check if any NPA-NXX-Xs or Number Pool Blocks exist with this NPA-NXX. If so, terminate processing at this point.**  **Update SV status reference in B.4.2.3, LRN Deletion by the SOA, in step 4:**  **Check the subscriptions database to see if subscriptions exist with this LRN that have a status other than “old” *without a Failed SP List* or “canceled.” Also, check if any Number Pool Blocks exist with this *LRN*~~NPA-NXX~~. If so, an M-SET error response complexity limitation is returned.**  10.  **Remove B.4.2.9, Network Data Download, as this is superceded by the text and flows in section B.7, Local SMS and SOA Recovery.**  **(continued)** | | | | | | |
| NANC 303 (con’t) | |  | 11.  Update flow B.2.7.2, NPAC SMS Performs Audit Comparisons for a SOA initiated Audit including a Number Pool Block, step #3, to include status of Old (to cover PTO scenarios).  12.  Update all audit flows (B.2.1, 2.3, 2.4, 2.5, 2.7.3, 2.8.2) to remove immediate delete steps and text (since this is based on the length of time in the tunables). Add new text to indicate this delete is performed by housekeeping.  13.  Update flows B.5.2.3 SubscriptionVersion Modify Prior to Activate Using M-ACTION, and B.5.2.4 SubscriptionVersion Modify Prior to Activate Using M-SET, to add the following text for the AVC’s sent to the New and Old SPs.  "Attribute value change notifications will be sent to both service provider SOAs when the following attribute values change for a pending, cancel-pending, conflict or disconnect-pending subscription versions:  subscriptionNewSP-DueDate  subscriptionNewSP-CreationTimeStamp  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  subscriptionOldSP-AuthorizationTimeStamp  subscriptionStatusChangeCauseCode  subscriptionVersionStatus "  14.  Update flow B.6.5.1.12, SubscriptionVersion Port-to-Original: Successful, to correct the discrepancy between the picture and the text (picture is wrong, text is correct). The SAVC from the NPAC SMS goes to the current owner (i.e., new SP) of SV1. | | | | | | |
| NANC 309 | | CMA 2/14/00 | Block Transition Diagram in FRS and IIS  It has been requested to add a Block Transition (Status Change) Diagram to the FRS and IIS. |  | FRS/IIS | Pure Backwards Compatible: YES | N/A | N/A | |

# Release 3.0.2

| **Release 3.0.2 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 304 | | CMA 1/24/00 | R3 GDMO documentation-only updates  1.  -- 1.0 LNP Download Action  lnpDownload ACTION  lnpDownloadBehavior BEHAVIOUR  SOAs can use the lnpDownload action to  recover network data ~~and~~  ~~notification data~~.  *The lnpNotificationRecovery*  *action is used to recover*  *notification data.*  Local SMSs can use the lnpDownload  Action to recover network data,  *and* subscription version data ~~and~~  ~~notification data~~.  *The lnpNotificationRecovery*  *action is used to recover*  *notification data.*  (continued) |  | IIS/GDMO | Pure Backwards Compatible: YES  May 00 LNPAWG (Atlanta), group consensus is to release a new GDMO by COB, Friday, 5/12. | N/A | N/A | |
| NANC 304 (con’t) | |  | The SOA or LSMS is capable of recovering data based on the association  functions. *The SOA recovers network data using the data download association*  *function (dataDownload).* The SOA recovers ~~network data and~~ notification data using  the network data management association function (networkDataMgmt).  The LSMS recovers network data and subscription data using the data  download association function (dataDownload) and recovers notification  data using the network data management association function  (networkDataMgmt).  2.  -- 15.0 Notification Recovery Action  lnpNotificationRecovery ACTION  lnpNotificationRecoveryBehavior BEHAVIOUR  The SOA or LSMS is capable of recovering data based on the association  functions. *The SOA recovers network data using the data download association*  *function (dataDownload).* The SOA recovers ~~network data and~~ notification data using  the network data management association function (networkDataMgmt).  The LSMS recovers network data and subscription data using the data  download association function (dataDownload) and recovers notification  data using the network data management association function  (networkDataMgmt).  (continued) | | | | | | |
| NANC 304 (con’t) | |  | 3.  -- 31.0 LNP Service Provider LRN Last Modified Time Stamp  serviceProvLRN-CreationTimeStamp ATTRIBUTE  WITH ATTRIBUTE SYNTAX LNP-ASN1.GeneralTime;  MATCHES FOR EQUALITY, ORDERING;  BEHAVIOUR serviceProvLRN-CreationTimeStampBehavior;  REGISTERED AS {LNP-OIDS.lnp-attribute 31};  Change the name from “Last Modified Time Stamp“ to “Creation Time Stamp”.  4.  -- 20.0 LNP subscription Version Managed Object Class  The Local SMS must be able to support a scoped request (M-GET,  M-SET, M-DELETE) with a filter for ~~equality on the subscriptionLNPType~~  ~~attribute, and~~ equality and ordering on the subscriptionTN from the  NPAC SMS.  -- 29.0 Number Pool Block Data Managed Object Class  The Local SMS must support *equality and* ordering on the numberPoolBlockNPA-NXX-X  attribute in a scoped and filtered request for mass updates *and audits*.  5.  -- 12.0 LNP NPAC SMS Managed Object Class  lnpNPAC-SMS-Behavior BEHAVIOUR  The subscriptionVersionNewNPA-NXX is used to support ~~the Release~~  ~~1.4 for~~ number pooling.  (continued) | | | | | | |
| NANC 304 (con’t) | |  | 6.  -- 31.0 Service Provider NPA-NXX-X Data Managed Object Class  serviceProvNPA-NXX-X-Behavior BEHAVIOUR  The subscriptionVersionNewNPA-NXX will be sent to notify the service  providers SOA and Local SMS systems of the creation of this object  if the creation is the first usage of the NPA-NXX. *However, this notification is not emitted*  *from the serviceProvNPA-NXX-X object, but rather from the lnpNPAC-SMS object*  *(top-level) instead.*  7.  -- 21.0 LNP NPAC Subscription Version Managed Object Class  subscriptionVersionNPAC-Behavior BEHAVIOUR  Attribute value change notifications will be sent to both service  provider SOAs when the following attribute values change for  a pending, cancel-pending, or conflict subscription  versions *(AVCs are not sent for modify active subscription versions)*: | | | | | | |
| NANC 306 | | CMA 1/24/00 | R3 GDMO update for WSMSC Package  -- 34.0 LNP Number Pool Block WSMSC Data Package  numberPoolBlockWSMSC-DataPkg PACKAGE  BEHAVIOUR numberPoolBlockWSMSC-DataPkgBehavior;  ATTRIBUTES  numberPoolBlockWSMSC-DPC GET-REPLACE,  numberPoolBlockWSMSC-SSN GET-REPLACE;  REGISTERED AS {LNP-OIDS.lnp-package 31};  numberPoolBlockWSMSC-DataPkgBehavior BEHAVIOUR  DEFINED AS !  This package provides for conditionally including the  WSMSC DPC and SSN attributes.  !;  Package s/b 34 not 31:  REGISTERED AS {LNP-OIDS.lnp-package 34}; |  | IIS/GDMO | Pure Backwards Compatible: NO  Functional Backwards Compatible: YES  This requires a re-compile.  May 00 LNPAWG (Atlanta), group consensus is to release a new GDMO by COB, Friday, 5/12. | N/A | N/A | |
| NANC 308 | | CMA 2/9/00 | R3 GDMO update for First Port Notification Removal from NPA-NXX-X Object  -- 31.0 Service Provider NPA-NXX-X Data Managed Object Class  serviceProvNPA-NXX-X-Pkg PACKAGE  BEHAVIOUR  serviceProvNPA-NXX-X-Definition,  serviceProvNPA-NXX-X-Behavior;  ATTRIBUTES  serviceProvNPA-NXX-X-ID GET,  serviceProvNPA-NXX-X-Value GET,  serviceProvNPA-NXX-X-CreationTimeStamp GET,  serviceProvNPA-NXX-X-ModifiedTimeStamp GET-REPLACE,  serviceProvNPA-NXX-X-DownloadReason GET-REPLACE,  serviceProvNPA-NXX-X-EffectiveTimeStamp GET-REPLACE;  ~~NOTIFICATIONS~~  ~~subscriptionVersionNewNPA-NXX;~~ |  | IIS/GDMO | Functional Backwards Compatible: NO  May 00 LNPAWG (Atlanta), group consensus is to release a new GDMO by COB, Friday, 5/12. | N/A | N/A | |
| NANC 313 | | ESI/TSE 07/05/00 | FRS Documentation Only Change – Bulk Data Download Files for NPA-NXX-X and Block Data to be Delivered in GMT instead of Central Time. 1. Currently the FRS states that the Bulk Data Download file for the NPA-NXX-X and Block Data be in Central Time (requirement listed below). This is inconsistent with the other Bulk Data Download files. It is suggested that the Block Data requirement that addresses the time on the BDD file be updated from Central Time to GMT and that Appendix E section that address NPA-NXX-X Data Download and Block Data Download be updated from Central Time to GMT  Existing Requirement for Block Data:  RR3-201.1 Number Pool Block Holder Information Bulk Download File Creation – Time Range Fields  NPAC SMS shall use the Start Time Range entry field as an inclusive start range in Central Time (daylight/standard), and the End Time Range entry field as an inclusive ending range in Central Time (daylight/standard), for Block data that were broadcast during the specified Time Range. (Previously B-654.1) (continued) |  | FRS | Jul 00 LNPA WG meeting – Item 1 was accepted and the change will be incorporated in the next update of the FRS.  Item 2 is to be moved to a separate change order and more details provided for review at the Aug 00 LNPA WG meeting in Baltimore. This item will be moved to change order NANC 314 |  |  | |
| NANC 313 (cont) | |  | Suggested Updated Requirement for Block Data:  RR3-201.1 Number Pool Block Holder Information Bulk Download File Creation – Time Range Fields  NPAC SMS shall use the Start Time Range entry field as an inclusive start range in *GMT*, and the End Time Range entry field as an inclusive ending range in *GMT*, for Block data that were broadcast during the specified Time Range. (Previously B-654.1)  Existing:  NPA-NXX-X Download File  The file name for the NPA-NXX-X download file will be in the format:  NPANXXX.DD-MM-YYYYHH24MISS (The NPANXXX portion is the literal string "NPANXXX", and the timestamp maps to the current time [Central time – standard/daylight].)  Suggested:  NPA-NXX-X Download File  The file name for the NPA-NXX-X download file will be in the format:  NPANXXX.DD-MM-YYYYHH24MISS (The NPANXXX portion is the literal string "NPANXXX", and the timestamp maps to the current time [*GMT*]).  Existing:  Block Data Download  The file name for the Block download file will be in the format:  NPANXXX-NPANXXX.DD-MM-  YYYYHH24MISS.DD-MM-YYYYHH24MISS.DD-MM-YYYYHH24MISS  The NPANXXX-NPANXXX values map to the NPA-NXX-X selection criteria, the first stamp maps to the current time (when the file is generated), the second time stamp maps to the begin time range, and the third time stamp maps to the end time range. All three time stamps are represented in  Central Time (standard/daylight), even though the Blocks are stored in the NPAC in Greenwich Mean Time.  (continued) | | | | | | |
| NANC 313 (cont) | |  | Suggested:  Block Data Download  The file name for the Block download file will be in the format:  NPANXXX-NPANXXX.DD-MM-YYYYHH24MISS.DD-MM-YYYYHH24MISS.DD-MM-YYYYHH24MISS  The NPANXXX-NPANXXX values map to the NPA-NXX-X selection criteria, the first stamp maps to the current time (when the file is generated), the second time stamp maps to the begin time range, and the third time stamp maps to the end time range. All three time stamps are represented in *GMT*.   1. The example Bulk Data Download files in Appendix E need to be updated to reflect the current file format. | | | | | | |
| NANC 314 | | TSE  7/5/00 | FRS Documentation Only Change – Subscription and Block Download File section in Appendix E have incorrect DPC data examples. The Subscription Download File and the Block Download File sections in Appendix E of the FRS have incorrect DPC data examples for the CLASS, LIDB, ISVM, and CNAM. The examples show the data as numeric and it should be octets.  Also there is a numbering error in Table E- 1 – Explanation of the Fields in The Subscription Download File.  (continued) | ?LOW | FRS |  | N/A | N/A / N/A | |
| NANC 314 (cont) | |  | The Subscription Download File example and table as they **currently** appear in the FRS:  **Subscription Download File**  0001|3031231000|1234567890|0001|19960916152337|  123456789|123|123456789|123|123456789|123|123456789|123|  123456789012|12|0001||0|0(CR) (end of subscription 1)  0002|3031241000|1234567891|0001|19960825011010||  123456789|123|123456789|123|123456789|123|123456789|123|  123456789013|13|0001|0|0(CR) (end of subscription 2)  0003|3031251000|1234567892|19960713104923|  123456789|123|123456789|123|123456789|123|123456789|123|  123456789014|13|0001|0|0(CR) (end of subscription 3)  Figure E- 1 -- Subscription Download File Example  (continued) | | | | | | |
| NANC 314 (cont) | |  | |  |  |  | | --- | --- | --- | | **Explanation of the fields in the SUBSCRIPTION download file** | | | | **Field Number** | **Field Name** | **Value in Example** | | 1 | Version Id | 0000000001 | | 2 | Version TN | 3031231000 | | 3 | LRN | 1234567890 | | 4 | New Current Service Provider Id | 0001 | | 5 | Activation Timestamp | 19960916152337 (yyyymmddhhmmss) | | 7 | CLASS DPC | 123456789 | | 8 | CLASS SSN | 123 | | 9 | LIDB DPC | 123456789 | | 10 | LIDB SSN | 123 | | 11 | ISVM DPC | 123456789 | | 12 | ISVM SSN | 123 | | 13 | CNAM DPC | 123456789 | | 14 | CNAM SSN | 123 | | 15 | End User Location Value | 123456789012 | | 16 | End User Location Type | 12 | | 17 | Billing Id | 0001 | | 18 | LNP Type | 0 | | 19 | Download Reason | 0 | | 20 | WSMSC DPC | Not present if LSMS or SOA does not support the WSMSC DPC as shown in this example. If it were present the value would be the same format as other DPC data. | | 21 | WSMSC SSN | Not present if LSMS or SOA does not support the WSMSC SSN as shown in this example. If it were present the value would be the same format as other DPC data. |   Table E- 2 – Explanation of the Fields in the Subscription Download File  (continued) | | | | | | |
| NANC 314 (cont) | |  | The Subscription Download File example and table as they ***should*** appear in the FRS:  **Subscription Download File**  0001|3031231000|1234567890|0001|19960916152337|  ***123123123***|123|***123123123***|123|***123123123***|123|***123123123***|123|  123456789012|12|0001||0|0(CR) (end of subscription 1)  0002|3031241000|1234567891|0001|19960825011010||  ***123123123***|123|***123123123***|123|***123123123***|123|***123123123***|123|  123456789013|13|0001|0|0(CR) (end of subscription 2)  0003|3031251000|1234567892|19960713104923|  ***123123123***|123|***123123123***|123|***123123123***|123|***123123123***|123|  123456789014|13|0001|0|0(CR) (end of subscription 3)  Figure E- -- Subscription Download File Example  (continued) | | | | | | |
| NANC 314 (cont) | |  | |  |  |  | | --- | --- | --- | | **Explanation of the fields in the SUBSCRIPTION download file** | | | | **Field Number** | **Field Name** | **Value in Example** | | 1 | Version Id | 0000000001 | | 2 | Version TN | 3031231000 | | 3 | LRN | 1234567890 | | 4 | New Current Service Provider Id | 0001 | | 5 | Activation Timestamp | 19960916152337 (yyyymmddhhmmss) | | ***6*** | CLASS DPC | ***123123123 (This value is 3 octets)*** | | ***7*** | CLASS SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | ***8*** | LIDB DPC | ***123123123 (This value is 3 octets)*** | | ***9*** | LIDB SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | ***10*** | ISVM DPC | ***123123123 (This value is 3 octets)*** | | ***11*** | ISVM SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | ***12*** | CNAM DPC | ***123123123 (This value is 3 octets)*** | | ***13*** | CNAM SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | ***14*** | End User Location Value | 123456789012 | | ***15*** | End User Location Type | 12 | | ***16*** | Billing Id | 0001 | | ***17*** | LNP Type | 0 | | ***18*** | Download Reason | 0 | | ***19*** | WSMSC DPC | Not present if LSMS does not support the WSMSC DPC as shown in this example. If it were present the value would be the same format as other DPC data. | | ***20*** | WSMSC SSN | Not present if LSMS does not support the WSMSC SSN as shown in this example. If it were present the value would be the same format as other ***SSN***data. |   Table E- 4 – Explanation of the Fields in the Subscription Download File  (continued) | | | | | | |
| NANC 314 (cont) | |  | The Block Download File example and table as they **currently** appear in the FRS:  **Block Download File**  1|3031231|1234567890|0001|19960916152337|  123456789|123|123456789|123|123456789|123|123456789|123|  ||0(CR) (end of Block 1)  2|3031241|1234567890|0001|19960916152337|  123456789|123|123456789|123|123456789|123|123456789|123|  ||0(CR) (end of Block 2)  3|3031251|1234567890|0001|19960916152337|  123456789|123|123456789|123|123456789|123|123456789|123|  ||0(CR) (end of Block 3)  Figure E- 2 -- Block Download File Example  (continued) | | | | | | |
| NANC 314 (cont) | |  | |  |  |  | | --- | --- | --- | | **Explanation of the fields in the BLOCK download file** | | | | **Field Number** | **Field Name** | **Value in Example** | | 1 | Block Id | 1 | | 2 | NPA-NXX-X | 3031231 | | 3 | LRN | 1234567890 | | 4 | New Current Service Provider Id | 0001 | | 5 | Activation Timestamp | 19960916152337 (yyyymmddhhmmss) | | 6 | CLASS DPC | 123456789 | | 7 | CLASS SSN | 123 | | 8 | LIDB DPC | 123456789 | | 9 | LIDB SSN | 123 | | 10 | ISVM DPC | 123456789 | | 11 | ISVM SSN | 123 | | 12 | CNAM DPC | 123456789 | | 13 | CNAM SSN | 123 | | 14 | WSMSC DPC | Not present if LSMS or SOA does not support the WSMSC DPC as shown in this example. If it were present the value would be the same format as other DPC data. | | 15 | WSMSC SSN | Not present if LSMS or SOA does not support the WSMSC SSN as shown in this example. If it were present the value would be the same format as other DPC data. | | 16 | Download Reason | 0 |   Table E- 2 – Explanation of the Fields in the Block Download File  (continued) | | | | | | |
| NANC 314 (cont) | |  | |  |  |  | | --- | --- | --- | | **Explanation of the fields in the BLOCK download file** | | | | **Field Number** | **Field Name** | **Value in Example** | | 1 | Block Id | 1 | | 2 | NPA-NXX-X | 3031231 | | 3 | LRN | 1234567890 | | 4 | New Current Service Provider Id | 0001 | | 5 | Activation Timestamp | 19960916152337 (yyyymmddhhmmss) | | 6 | CLASS DPC | 123456789 | | 7 | CLASS SSN | 123 | | 8 | LIDB DPC | 123456789 | | 9 | LIDB SSN | 123 | | 10 | ISVM DPC | 123456789 | | 11 | ISVM SSN | 123 | | 12 | CNAM DPC | 123456789 | | 13 | CNAM SSN | 123 | | 14 | WSMSC DPC | Not present if LSMS or SOA does not support the WSMSC DPC as shown in this example. If it were present the value would be the same format as other DPC data. | | 15 | WSMSC SSN | Not present if LSMS or SOA does not support the WSMSC SSN as shown in this example. If it were present the value would be the same format as other DPC data. | | 16 | Download Reason | 0 |   Table E- 2 – Explanation of the Fields in the Block Download File  (continued) | | | | | | |
| NANC 314 (cont) | |  | |  |  |  | | --- | --- | --- | | **Explanation of the fields in the BLOCK download file** | | | | **Field Number** | **Field Name** | **Value in Example** | | 1 | Block Id | 1 | | 2 | NPA-NXX-X | 3031231 | | 3 | LRN | 1234567890 | | 4 | New Current Service Provider Id | 0001 | | 5 | Activation Timestamp | 19960916152337 (yyyymmddhhmmss) | | 6 | CLASS DPC | ***123123123 (This value is 3 octets)*** | | 7 | CLASS SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | 8 | LIDB DPC | ***123123123 (This value is 3 octets)*** | | 9 | LIDB SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | 10 | ISVM DPC | ***123123123 (This value is 3 octets)*** | | 11 | ISVM SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | 12 | CNAM DPC | ***123123123 (This value is 3 octets)*** | | 13 | CNAM SSN | 123 ***(This value is 1 octet and usually set to 000)*** | | 14 | WSMSC DPC | Not present if LSMS does not support the WSMSC DPC as shown in this example. If it were present the value would be the same format as other DPC data. | | 15 | WSMSC SSN | Not present if LSMS does not support the WSMSC SSN as shown in this example. If it were present the value would be the same format as other ***SSN*** data. | | 16 | Download Reason | 0 |   Table E- 2 – Explanation of the Fields in the Block Download File  (continued) | | | | | | |
| NANC 315 | | ESI 8/10/00 | FRS Document Only Change – NSAP Field Size A problem with the NSAP field in the Service provider Network Data was uncovered during NPAC Release 3.0 testing.  Currently in the FRS the NSAP is declared to be a field of size 20 (Table 3-4). In the ASN.1 the NSAP field is declared to be 20 octets with a potential to hold 40 digits in binary. The current usage by SOA and LSMS applications is to send 24 digits for the 12 digit RFC1006 address header and the 12 digit IP address and append 16 zero’s to fill the rest of the field since the optional port number is not currently used.  In previous releases of the NPAC software the zeros were truncated. NPAC Release 3.0 did not truncate the zeros so failures occurred when Service Providers sent a CustomerModify request to the NPAC.  The NPAC software has been updated so that the zeros are truncated as in the past. We now need to make a document only change to the FRS to declare the NSAP field to be 24 digits, and document the NSAP field usage in the IIS.  (continued) | ?LOW | FRS | Aug 00 – It was decided that the document only change should be made in the FRS to declare the NSAP field size to be 12 octets (24 digits in binary) and that another change order to update the ASN.1 should be opened.  Change Order NANC 316 will be opened to cover the ASN.1 change.  Sept 00 – Move the document to the Next Document Release Change Order section of the Accepted Change Orders and add the table with the updated information. | N/A | N/A / N/A | |
| NANC 315 (con’t) | | The table needs to be amended as follows (change is in large type, bolded and italized):   | **npac customer Network Address DATA MODEL** | | | | | --- | --- | --- | --- | | **Attribute Name** | **Type (Size)** | **Required** | **Description** | | | NPAC Customer Network Address ID | N | √ | A unique sequential number assigned upon creation of the Network Address record. | | | NPAC Customer ID | C (4) | √ | An alphanumeric code which uniquely identifies an NPAC Customer. | | | Network Address Type | C (1) | √ | Type of Network Address. Valid values are:   1. S - SOA interface 2. L - Local SMS interface | | | NSAP Address | Address ***(12***) | √ | OSI Network Service Access Point Address | | | TSAP Address | Address (4) |  | OSI Transport Service Access Point Address. | | | SSAP Address | Address (4) | √ | OSI Session Service Access Point Address. | | | PSAP Address | Address (4) | √ | OSI Presentation Service Access Point Address. | | | Internet Address | Address (12) |  | Internet address of the Service Provider Web interface. | |   Table 3-4 NPAC Customer Network Address Data Model  (continued) | | | | | | | |
| NANC 317 | | TSE 9/6/00 | Name Change to service-prov-download-reason in ASN.1 – ASN.1 Recompile In Release 3.0.2 of the ASN.1 a change was made to update the element name for the service-prov-download-reason in the NPA-NXX-X DownloadData. A change order was never written to cover this change.  Prior to Release 3.0.2 of the ASN.1 the element name was:  service-prov-download-reason [5] DownloadReason  Release 3.0.2 of the ASN.1 changed the element name to:  service-prov-*npa-nxx-x*-download-reason [5] DownloadReason  This change required a recompile which has already been done. |  | ASN.1 | This change has already been implemented in Release 3.0.2 of the ASN.1.  This change order is being written after the fact for tracking purposed only.  Sept 00 – At the time this change was implemented (May 00) it was an ASN.1 recompile (implemented in ASN.1 version 3.0.2). Now it is a document only change order for tracking purposed. It will be incorporated into the IIS version 3.0.2 which will contain the ASN.1 3.0.2 and so noted. | N/A | N/A / N/A | |
| NANC 318 | | ESI  10/11/00 | FRS Documentation Only Change – Update Requirement RR3-49 NPA Splits and the Number Pool Block Holder Information – Mass Update that includes one or more Blocks for an NPA-NXX involved in a NPA Split. Currently this requirement states that either the Old or New NPA-NXX can be used for a Mass Update to a NPA-NXX that is in permissive dialing. This is incorrect as the Mass Update functionality does not do split processing.  Existing Requirement:  **RR3-49 NPA Splits and the Number Pool Block Holder Information – Mass Update that includes one or more Blocks for an NPA-NXX involved in an NPA Split**  NPAC SMS shall accept a ***mass update*** request that could span one or more Blocks from NPAC personnel, with either the old NPA-NXX or the new NPA-NXX for an NPA-NXX that is currently in permissive dialing. (Previously B-552)  Suggested Updated Requirement:  **RR3-49 NPA Splits and the Number Pool Block Holder Information – Mass Update that includes one or more Blocks for an NPA-NXX involved in an NPA Split** NPAC SMS shall process a *mass update* request from NPAC personnel that spans one or more Blocks that are part of an NPA Split that is currently in permissive dialing only when the new NPA-NXX is used. |  | FRS | During NPAC Release 3.0 testing there was a test case (5.2) that required NPAC Personnel to do a mass update on Number Pool Blocks during permissive dialing period using the Old NPA. The NPAC SMS responded with a message that “0 SV records would be affected”. A defect was opened. The NPAC vendor responded that mass updates did not do split processing. This was presented to the LNPA WG during the October ’00 meeting and it was explained to the group that this was not functionality that should be implemented because it was too dangerous. The group agreed and decided that the requirement being tested in the above test case should be modified and the test case revised. The test case was revised and distributed to the industry. This document only change order would modify the affected requirement.  **November 00 – Change order was accepted and moved to ‘Next Documentation Release Change Orders’.** | N/A | N/A | |

# Release 3.1.0

| **Release 3.1.0 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 179 | | Lockheed Martin 11/25/97 | TN Range Notifications  Currently notifications for TN range related operations come as individual notifications for each TN in the range. It has been suggested that the notifications for all TN’s in a range be combined into one notification.  After further analysis, it was determined that this should be revised to include all appropriate status attribute value changes and attribute value changes, plus return to donor notifications. | Medium | FRS, IIS, GDMO, ASN.1 | Func Backwards Compatible: NO  An additional write-up of this change order implementation was provided to the group. Lockheed is currently doing some preliminary sizing.  SPs should be discussing the downsized version internally.  Refer to R4 Change Orders for current proposed resolution.  **July 2001:** Change Order moved into R3.1 package.  Implemented in FRS 3.1.0, IIS 3.1.0, GDMO 3.1.0, and ASN.1 3.1.0. | Med | Med-High / N/A | |
| NANC 240 | | LNPA WG  10/15/98 | **No Cancellation of SVs Based on Expiration of T2 Timer**  During the discussion of NANC 198, it was mentioned that Service Providers end up doing more work if the NPAC cancels an SV, at the expiration of the T2 timer, when a New SP does NOT send up a matching Create message.  Therefore, this change order has been opened to explore the possibility of changing the NPAC to cancel the SV, "*at some later date*", than the expiration of T2, which is what the current functionality requires (R5-23.4 New Service Provider Fails to Authorize Transfer of Service).  This change order is related to NANC 198.  During the Sep LNPA-WG meeting, another option was proposed by Ameritech. After T2 has expired and the New SP has NOT sent up a matching SV create, the NPAC SMS sets the SV to conflict (instead of cancel). The conflict would go to cancel after a tunable (currently set to 30) number of days (i.e., self cleaning), reference tunable “Conflict Expiration Window”. | High | FRS, IIS, GDMO, ASN.1 | Func Backwards Compatible: NO  Jim will look into NPAC functionality to determine if there are any issues.  Service Providers should evaluate internal issues with the LSR/FOC process, as well as operational impacts that may occur if this change order is implemented. Specifically, the New SP should evaluate if they could use the T1 expiration timer notification, as a mechanism to take an action, and send up the matching Create message to the NPAC.  MCI has requested that the following be considered for the processing steps:  When the T2 timer expires before a new SP Create message is received by NPAC, the NPAC shall:  1. send notification to both old SP and new SP that T2 timer has expired, and  2. start the T3 timer (tunable).  Upon receipt of the new SP create before expiration of the T3 timer, the NPAC shall stop the T3 timer.  (continued) | Med / High | ? / N/A (? depends on implementation) | |
| NANC 240  (con’t) | | Continued |  |  | Upon expiration of the T3 timer before new SP create message is received by NPAC, the NPAC shall:  1. cancel the pending SV, and  2. send notification to both old SP and new SP that pending SV is canceled due to missing new SP create.  Nov LNPAWG (Dallas), spirited discussion by the group. One thing to keep in mind that if we determine we do NOT want the NPAC to auto cancel at the expiration of T2 (and want some later date), then we need to separate this from the T2 timer. Need to add the option that we may need to incorporate this auto cancel into some type of housekeeping, and not have it scheduled like today’s T1 and T2 timers.  Move to accepted, even though the words are still very uncertain, we haven’t decided on the actual solution, and we need to perform further analysis. The T3 option proposed by MCI is just one of several potential options that need to be hashed out when this change order gets prioritized to a specific release.  Refer to R4 Change Orders for current proposed resolution.  **July 2001:** Change Order moved into R3.1 package.  Implemented in FRS 3.1.0, IIS 3.1.0, GDMO 3.1.0 and ASN.1 3.1.0. | | | | |
| NANC 294 | | LNPA WG 8/11/99 | **Changing Due Date Edit Functionality in the NPAC SMS for 7PM on Due Date Problems**  Service Providers involved in last minute emergency porting situations, cannot create/concur/activate SVs that are created after 7p (eastern standard time) on the due date. Since those created after 7p EST, equate to after midnight GMT the next day on the NPAC SMS, the old SP cannot concur to the port, and the new SP cannot activate at this point in time since timers have not expired.  Sep LNPAWG (Chicago), after much discussion the group agreed that this problem exists for initial creates as well as concurs, if either one happens after 7p EST.  Option #1 from Portland is a huge effort, and does not resolve the issue (it just narrows the window). Option #2 from Portland was deemed to be the best solution at this point. However, the back-dating needs to be limited to ensure this functionality does not open the window for “pamming” (port slamming)  Oct LNPAWG (KC), the back-dating capability allows the SP (local side thinks it’s still the current date) to send a previous day’s date, even though the NPAC has already rolled to the next day.  This back-dating still allows an SP to send up yesterday’s date with zeros in the time portion. This will accommodate SPs that always sends all zeros in SV create messages (even though this would be more than the 4-10 hour back-dating range). | High | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Aug LNPAWG (Portland), the group talked about two options: 1.) change the NPAC SMS to run and store in central time; 2.) change the NPAC SMS edit to allow a concurrence in the past (i.e., back-dated concurrence). It was noted that the first option still has a problem with ports in the western region, west coast region, and hawaii, albeit the problem window is smaller. This will be discussed in more detail next month.  Sep LNPAWG (Chicago), using option #2, a new tunable (“Back-Dating Due Date Differential”) per region would only open the window for back-dating to the largest differential time zone in that region from the NPAC (i.e., from a map perspective, the left most time zone [“prevailing time zone”] in that specific region). The time zone would be adjusted for standard/daylight, and the tunable would have a valid range of 4-10 hours (4 hours is EDT, 10 hours is Hawaiian standard time).  Oct LNPAWG (KC), the desired functionality may require two tunables per region (to account for both standard time and daylight time).  **July 2001:** Change Order moved into R3.1 package.  Implemented in FRS 3.1.0, IIS 3.1.0 and GDMO 3.1.0. | Med | N/A / N/A | |
| NANC 305 | | CMA 1/24/00 | R3 ASN.1 documentation-only updates  SystemType ::= ENUMERATED {  soa(0),  local-sms(1),  soa-and-local-sms(2), -- value not  supported  npac-sms(3) -- value is only valid for  AccessControl definition  }  The comment for the second enumeration should be changed from “value not supported”  to “it is assumed this value will not be sent by any local system”. |  | ASN.1 | Pure Backwards Compatible: YES  **July 2001:** Document Only change included in ASN.1 Version 3.1.0. Not part of the Release 3.1 SOW.  Implemented in IIS 3.1.0 and ASN.1 3.1.0. | N/A | N/A | |
| NANC 324 | | AT&T 01/25/01 | **IIS Document Only Change – Flow B.5.4.7.3: Subscription Version Disconnect With Effective Release Date**  The text in line 5 of the flow is incorrect.  Currently it states  M-EVENT-REPORT subscriptionVersionDonorSP-DisconnectDate  It should be  M-EVENT-REPORT ***subscriptionVersionStatusAttributeValueChange*** |  | IIS | **February 2001 meeting:** Accepted  **July 2001:** Document Only change included in IIS Version 3.1.0. Not part of the Release 3.1 SOW.  Implemented in IIS 3.1.0. | N/A | N/A / N/A | |
| NANC 325 | | AT&T 01/25/01 | **GDMO Document Only Change – 4.0 LNP Subscription Version Cancel Action**  Need to add some additional text to the subscriptionVersionCancelBehavior BEHAVIOUR  Postconditions to cover the cancellation of a disconnect-pending.  Current text:  subscriptionVersionCancelBehavior BEHAVIOUR  Postconditions: The service provider has set the version status to cancel-pending if the other service provider has concurred, or to cancel if the other service provider has not concurred. An error will be returned if there is no version that can be canceled or the service provider is not authorized.  Proposed text:  subscriptionVersionCancelBehavior BEHAVIOUR  Postconditions: ***If the status was pending or conflict,*** the service provider has set the version status to cancel-pending if the other service provider has concurred, or to cancel if the other service provider has not concurred. ***If the status was disconnect-pending, the service provider has set the version status back to active.*** An error will be returned if there is no version that can be canceled or the service provider is not authorized. |  | GDMO | **February 2001 meeting:** Accepted  **July 2001:** Document Only change included in GDMO Version 3.1.0. Not part of the Release 3.1 SOW.  Implemented in IIS 3.1.0 and GDMO 3.1.0. | N/A | N/A / N/A | |
| NANC 326 | | AT&T 02/02/01 | **IIS Document Only Change – Flow B.5.6: Subscription Version Query**  The query return data list in step 2 is missing one item. It should contain “subscriptionVersionId”.  Currently it states:  The query return data includes:   subscriptionTN (SOA, LSMS)  subscriptionLRN (SOA, LSMS)  subscriptionNewCurrentSP (SOA, LSMS)  …  Change to:  The query return data includes:   ***subscriptionVersionId (SOA, LSMS)***  subscriptionTN (SOA, LSMS)  subscriptionLRN (SOA, LSMS)  subscriptionNewCurrentSP (SOA, LSMS)  … |  | IIS | **February 2001 meeting:** Accepted  **July 2001:** Document Only change included in IIS Version 3.1.0. Not part of the Release 3.1 SOW.  Implemented in IIS 3.1.0. | N/A | N/A / N/A | |
| NANC 327 | | NeuStar 3/19/01 | **FRS Document Only Change – Update Appendix C – System Tunables**  Currently the Subscription Tunables Table in Appendix C has Short Business Days and Long Business Days listed as tunables. Per requirements RR3-11 and RR3-30 this is incorrect. Requirement RR3-11 states “NPAC SMS short business days shall be Monday through Friday excluding NPAC operations-defined holidays”. Requirement RR3-30 states “NPAC SMS long business days shall be Monday through Saturday excluding NPAC operations-defined holidays”.  (continued) |  | FRS | **Proposed Resolution:** Remove the Short Business Days and Long Business Days items from the Subscription Tunables Table in Appendix C of the FRS.  **April 2001 Meeting:** Accepted. The update will be made in the next release of the FRS.  **July 2001:** Document Only change included in IIS Version 3.1.0. Not part of the Release 3.1 SOW. | N/A | N/A / N/A | |
| NANC 327 (cont’d) | | Current Table:   | **Subscription Tunables** | | | | | | | | --- | --- | --- | --- | --- | --- | --- | | **Tunable Name** | **Default Value** | **Units** | | | | **Valid Range** | | **Long Initial Concurrence Window** | 9 | business hours | | | | 1-72 | | The hours subsequent to the time the subscription version was initially created by which both Service Providers using long timers are expected to authorize transfer of service if this is an Inter-Service Provider port. (T1 timer) | | | | | | | | **…** |  |  | | | |  | |  | | | | | | | | **Long Business Day Start Time** | TBD | | | hh:mm | 00:00 - 24:00 | | | Parameter tunable to the value specified by the contracting region for long business days. | | | | | | | | **Short Business Days** | Monday – Friday | | | Days | Monday – Sunday | | | The business days available for Service Providers using short business days. | | | | | | | | **Long Business Days** | Monday – Sat. | | Days | | Monday - Sunday | | | The business days available for Service Providers using long business days. | | | | | | |   (continued) | | | | | | | |
| NANC 327 (cont’d) | | Revised Table:   | **Subscription Tunables** | | | | | | | | --- | --- | --- | --- | --- | --- | --- | | **Tunable Name** | **Default Value** | **Units** | | | | **Valid Range** | | **Long Initial Concurrence Window** | 9 | business hours | | | | 1-72 | | The hours subsequent to the time the subscription version was initially created by which both Service Providers using long timers are expected to authorize transfer of service if this is an Inter-Service Provider port. (T1 timer) | | | | | | | | **…** |  |  | | | |  | |  | | | | | | | | **Long Business Day Start Time** | TBD | | | hh:mm | 00:00 - 24:00 | | | Parameter tunable to the value specified by the contracting region for long business days. | | | | | | | |  |  | | |  |  | | |  | | | | | | | |  |  | |  | |  | | |  |  | |  | |  | | |  | | | | | | |   Implemented in FRS 3.1.0. | | | | | | | |
| NANC 328 | | Wireless Ops SC 3/20/01 | **Tunable for Long and Short Business Days**  **Business Need:** Currently, per RR3-30 in the FRS, the NPAC SMS has Long Business Days defined as Monday through Saturday excluding NPAC operations-defined holidays. This means that short timers only run Monday through Saturday. Wireless Service Providers need short timers to run on Sundays as well so they can port in a 2½ hour window on all days of the week. To meet this need Long Business Days need to be Monday through Sunday.  April 2001 LNPA WG Meeting: AT& T Broadband requested that the change order include making Short Business Days a tunable also. The LNPA WG accepted this request.  **Description of Change:** Wireless Service Providers are requesting that Long Business Days be defined as a tunable with a default value of Monday through Sunday.  April 2001 LNPA WG Meeting: The change order will be revised to make both Long and Short Business Days a tunable.  (continued) | High | FRS | Pure Backwards Compatible: **Yes**  **April 2001 Meeting:** AT&T Broadband requested that the change order include making Short Business Days a tunable also. This was accepted by the LNPA WG and the CMA was directed to revise the change order accordingly and present it again at the May 2001 meeting.  **May 2001 Meeting:** Modifications to include Short Business Days accepted.  **July 2001:** Change Order included in R3.1 package. | Low | N/A / N/A | |
| NANC 328 (cont’d) | |  | Initial Requirements:  Req 1 Long Business Days Tunable Parameter  NPAC SMS shall provide a Long Business Days tunable parameter that defines the days of the week that are valid for operations involving business time calculation excluding NPAC operations-defined holidays.  Req 2 Long Business Days Tunable Parameter – Default Value  NPAC SMS shall default the Long Business Days tunable parameter to Monday through Sunday.  Req 3 Long Business Days Tunable Parameter – Valid Values  NPAC SMS shall use days of the week as valid values for the Long Business Days tunable parameter.  Req 4 Short Business Days Tunable Parameter  NPAC SMS shall provide a Short Business Days tunable parameter that defines the days of the week that are valid for operations involving business time calculation excluding NPAC operations-defined holidays.  Req 5 Short Business Days Tunable Parameter – Default Value  NPAC SMS shall default the Short Business Days tunable parameter to Monday through Friday.  Req 6 Short Business Days Tunable Parameter – Valid Values  NPAC SMS shall use days of the week as valid values for the Short Business Days tunable parameter.  Implemented in FRS 3.1.0. | | | | | | |
| NANC 329 | | NeuStar 06/13/01 | **Prioritization of SOA Notifications**  **Business Need:** With the deployment of the NPAC Release 3.0 in the Northeast region a SOA – NPAC Interface problem has surfaced. The improved performance of NPAC Release 3.0 and the faster hardware platform that this software is running on is resulting in transactions being processed for broadcast to the industry quicker than the SOA – NPAC interface can transmit them. During peak periods the interface cannot support the volumes of notifications that the NPAC SMS is generating, thus there is a long delay in notification delivery that results in operational issues. At the current time it is the ILEC that is primarily affected by this problem because the ILEC receives the largest volume of SOA notifications but the problem has the potential of affecting any Service Provider. The NAPM, LLC has decided not to go forward with the deployment of NPAC Release 3.0 until this interface problem has been mitigated. NeuStar is proposing that SOA Notifications be prioritized and transmitted over the interface based on priority. This would allow for more timely delivery of Service Providers high priority notifications.  (continued) | High | FRS | Func Backwards Compatible: YES  **June 2001 meeting:** CMA to work with NeuStar to develop first draft of the requirements which will be reviewed by the LNPA WG via Conference Call on Thursday, 06/28/2001.  **Jul 2001 meeting:** Accepted. Change Order included in R3.1 package. | Med | N/A / N/A | |
| NANC 329 cont’d | |  | **Description of Change:** Currently SOA notifications are not prioritized so they are generated by the NPAC SMS and then transmitted on a ‘first in, first out’ basis. During a large porting volume peak this model can produce major delays in the transmission of notifications through the SOA – NPAC interface, resulting in operational issues. This change order would prioritize SOA notifications and allow requests and notifications with the highest priority to be transmitted first. The SOA notifications would have five categories: **high, medium, low,** and **none**. The category of **none** would indicate that a Service Provider did not want to receive a particular notification. One of the other three categories would be assigned to each notification on a per region basis. A Service Provider would have the option of overriding the default value. |  |  | Implemented in FRS 3.1.0, IIS 3.1.0 and GDMO 3.1.0. |  |  | |
| NANC 330 | | TSE 07/13/01 | **IIS Document Only Changes to Multiple Flows:**  **Flow B.4.4.3, step 5 of the flow diagram**  Correct "subscriptionVersionLocalSMS-**Create**Results" notification in the flow pictures to be."subscriptionVersionLocalSMS-**Action**Results".  **Flow B.4.4.6, step 5 of the flow diagram**  Correct "subscriptionVersionLocalSMS-**Create**Results" notification in the flow pictures to be."subscriptionVersionLocalSMS-**Action**Results".  **Flow B.4.4.8, step 9 of the flow diagram**  Correct "subscriptionVersionLocalSMS-**Create**Results" notification in the flow pictures to be."subscriptionVersionLocalSMS-**Action**Results".  **Flow B.5.1.6.1, step 3 of the flow diagram**  Correct "subscriptionVersionLocalSMS-**Create**Results" notification in the flow pictures to be."subscriptionVersionLocalSMS-**Action**Results".  **Flow B.5.3.1, steps 5 & 7 of the flow diagram**  Correct “M-EVENT-REPORT attributeValueChange” to be “M-EVENT-REPORT subscriptionVersionAttributeValueChange”.  continued | Low | IIS |  | N/A | N/A /N/A | |
| NANC 330 (cont’d) | |  | **Flow B.5.3.1.1**  **Step 4 of the flow picture**  Correct "subscriptionversion**New**SP-CancellationAcknowledge" to be "subscriptionversion**Old**SP-CancellationAcknowledge".  **Step 8 of the flow picture**  Delete "subscriptionVersionStatus=canceled".  **Step 9 of the flow picture**  Add "subscriptionVersionStatus=canceled".  **Flow B.5.3.2**  Correct the flow picture to match the text steps.  **Flow B.5.5.4**  Correct title of flow from “Subscription Version Conflict by Old Service Provider Explicitly Not Authorizing (First Create)” to “Subscription Version Conflict by Old Service Provider Explicitly Not Authorizing (**2nd** Create)”.  **Flow B.6.4**  Correct the flow picture to match the text steps. |  |  | Implemented in IIS 3.1.0. |  |  | |
| NANC 331 | | TSE 08/06/01 | **IIS Document Only Changes - Add missing flow for Subscription Version Create: Failure to Receive Response from New SOA after “Initial Concurrence Window” Expiration**  This scenario shows no response within “Initial Concurrence Window” by the new service provider.  In this case, the old service provider SOA issued the create request. The NPAC SMS has issued the ObjectCreation M-EVENT REPORT back to both the old and new service provider SOAs. No response has yet been received by the new service provider SOA.  A new flow will be created to match the following text:  NPAC SMS does not receive a response from the new service provider SOA within the “Initial Concurrence Window” for the pending subscriptionVersionNPAC created by the old service provider SOA.   1. NPAC SMS sends the new service provider, depending upon the new service provider’s TN Range Notification Indicator, a subscriptionVersionNewSP-CreateRequest M-EVENT-REPORT. 2. The new service provider SOA returns an M-EVENT REPORT confirmation to the NPAC SMS.   New service provider has up to the “Final Concurrence Window” to respond to the request.  If the new service provider SOA responds with a valid M-ACTION or M-SET, processing resumes as a successful create. | Low | IIS | Implemented in IIS 3.1.0. | N/A | N/A /N/A | |
|  | |  |  |  |  |  |  |  | |

# Release 3.2.0

| **Release 3.2.0 Implemented/Closed Change Orders** | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | | **Orig. / Date** | | **Description** | | **Priority** | | **Category** | | **Final Resolution** | **Level of Effort** | | | |
|  | | |  | |  | |  | |  | |  | **NPAC** | **LSMS SOA** | | |
| NANC 169 | | | Bellcore  5/23/97 | | **Delta Download File Creation by Time Range for SVs**  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.  During Dec ’98 Natl N Pool meeting, discussed 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 modifications 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.  During Jan LNPAWG meeting, 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.  (continued) | | Medium | | FRS | | Pure Backwards Compatible: YES  This item is on hold until further experience is gained with download. This change is expected to help a service provider catch-up faster after an extend outage when the database becomes large.  It was indicated that this functionality is already available in the Lockheed Martin NPAC SMS implementation. Delete Pending  This change order was re-opened for discussion during the Dec ’98 LNPAWG meeting.  Dec LNPAWG (Atlanta), verify start and end timestamps embedded in filename. Update documentation to state Activation Broadcast Complete Timestamp is used for comparison.  Update: The start and end timestamps are NOT embedded in the filename.  The proposal from the Natl N Pool Sub-Committee is to use the Last Modified Timestamp attribute in the SV, to determine whether or not an SV fits in the specified time range.  (continued) | Med | N/A / N/A | | |
| NANC 169 (con’t) | | | For #1 (new words in *larger print italics*), in FRS Appendix E, Download File Examples,  Subscription versions in the download file are selected by an NPA-NXX begin and end range. The file name for the Subscriptions download file, *where a time range is NOT selected,* will be in the format: NPANXX-NPANXX.DD-MM-YYYYHH24MISS The NPANXX-NPANXX values map to the selection criteria and the time stamp maps to the current time *(Central Time - standard/daylight)*.  The Subscriptions file given in the example would be named:  303123-303125.10-13-1996081122  *In the case where a time range is selected, the file name for the Subscriptions download file with a time range, will be in the format:*  *NPANXX-NPANXX.DD-MM-YYYYHH24MISS. DD-MM-YYYYHH24MISS. DD-MM-YYYYHH24MISS.TIMEZONE*  *The NPANXX-NPANXX values map to the selection criteria, the first time stamp maps to the current time**(when the file is generated), the second time stamp maps to the start time range, and the third time stamp maps to the end time range. All three time stamps are represented in Central Time (standard/daylight), even though the Subscription Versions are stored in the NPAC in Greenwich Mean Time. The TIMEZONE value will contain one of two values, either CST or CDT, depending on the current time zone in the Central Time Zone (when the file is generated).*  *The Subscriptions file with a time range given in the example would be named:*  *303123-303125.10-13-1996081122.10-10-  1996000000.10-12-1996115959.CST*  (continued) | | | | | |  | | **Jan LNPAWG (Atlanta), proposed changes were discussed. CMA will include proposed changes in next version of the change management list.**  Feb LNPAWG (San Ramon), updated multiple points for the change order (both file name and requirements).  NOTE: The baseline for this change order is R2. Therefore, when this change order gets merged into R3, need to change req 9 to reflect the EDR Flag, and filter out LNP Type of POOL (ref. SV-521).  ACTION ITEM: Jim will look at the broadcast timestamp for the SV Object, and how the NPAC Data Model attributes match up to the broadcast to the LSMSs.  CLOSED, Mar 99. Activations are using the Activation Broadcast Timestamp in SV Data Model.  Mar LNPAWG (Denver), reviewed updated words. Modifications will be reviewed in Apr.  Apr LNPAWG (DC), reviewed updates. Move to Accepted List.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – Sometime during the R4.0 discussions this change order was removed from the R4.0 package.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order. | | | | |
| NANC 169 (con’t) | | | Also for #1, no functional requirements or IIS flows are affected by this change.  For #2, new requirements are proposed (see below)  Req 1 Subscription Version Information Bulk Download File Creation – Subscription Versions  NPAC SMS shall allow NPAC personnel to request a bulk data download file for Subscription Version data via the NPAC Administrative Interface. (existing NPAC SMS functionality)  Req 2 Subscription Version Information Bulk Download File Creation – Selection Criteria  NPAC SMS shall include the Requesting Service Provider, Active/Disconnect Pending/Partial Failure Subscription Versions Only or Latest View of Subscription Version Activity Choice, Time Range in Central Time (standard/daylight), and TN Range as Selection Criteria fields for the Subscription Version bulk data download file via the NPAC Administrative Interface.  Req 3 Subscription Version Information Bulk Download File Creation – Active/Disconnect Pending/Partial Failure Subscription Versions Only or Latest View of Subscription Version Activity Choice  NPAC SMS shall allow NPAC Personnel to select either *Active/Disconnect Pending/Partial Failure Subscription Versions Only* or *Latest View of Subscription Version Activity*, and shall use the selected choice, for Subscription Version data.  Req 4 Subscription Version Information Bulk Download File Creation – Data in Active/Disconnect Pending/Partial Failure Subscription Versions Only Choice  NPAC SMS shall use the *Active/Disconnect Pending/Partial Failure Subscription Versions Only* selection to only include Subscription Versions with a status of either Active, Disconnect Pending or Partial Failure in the Subscription Version Bulk Data Download file.  Req 5 Subscription Version Information Bulk Download File Creation – Data in Latest View of Subscription Version Activity Choice  NPAC SMS shall use the *Latest View of Subscription Version Activity* selection to include all Subscription Versions, regardless of status, in order to capture activation, modification, and deletion transactions for Subscription Version data, but only include the latest instance of the TN in the Subscription Version Bulk Data Download file, for a given NPA-NXX, when a Subscription Version has more than one activity (e.g., addition, then modification) within the specified time range.  (continued) | | | | | | | | | | | | |
| NANC 169 (con’t) | | | Req 6 Subscription Version Information Bulk Download File Creation – Time Range Fields  NPAC SMS shall use the Start Time Range entry field as an inclusive start range in Central Time (standard/daylight), and the End Time Range entry field as an inclusive ending range in Central Time (standard/daylight), for Subscription Version data that were broadcast during the specified Time Range.  Req 7 Subscription Version Information Bulk Download File Creation – TN Range Fields  NPAC SMS shall use the first TN Range entry field as an inclusive start range, and the second TN Range entry field as an inclusive ending range, for Subscription Version data.  Req 8 Subscription Version Information Bulk Download File Creation – Selection Criteria Combinations  NPAC SMS shall edit the selection criteria combination as shown in the table below:  | Time Range | TN Range -------------------------------------------------------------------------- Active**/**Disconnect Pending/  Partial Failure SVs Only | Rejected| Optional Latest View of SV Activity | Required | Optional  Such that a combination of:   * Active with a Time Range shall be rejected. * Latest View shall require a Time Range. * TN Range shall be optional for both Active and Latest View.   Req 9 Subscription Version Information Bulk Data Download – Subscription Version Results  NPAC SMS shall provide a bulk data download file, based on the selection criteria, that contains all Subscription Versions in the NPAC SMS.  (continued) | | | | | | | | | | | | |
| NANC 169 (con’t) | | | Req 10 Subscription Version Information Bulk Data Download – Subscription Version Results Sort Order  NPAC SMS shall sort the Subscription Version Bulk Data Download file, in ascending order based on the value in the TN attribute.  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.  Req 12 Subscription Version Information Bulk Data Download – FTP Sub-Directory  NPAC SMS shall automatically put the bulk data download file into the FTP sub-directory of the Service Provider, based on SPID, that requested the creation of the bulk data download file.  Req 13 Subscription Version Information Bulk Download File Creation – Time Range Fields and SV Data Model  NPAC SMS shall use the Start and End Time Range entry fields to include Subscription Version data, based on the Activation Broadcast Time Stamp, Modify Broadcast Time Stamp, and Disconnect Broadcast Time Stamp, in the NPAC’s Subscription Version Data Model, when generating the file for the *Latest View of Subscription Version Activity* selection.  Implemented in FRS 3.2.0. | | | | | | | | | | | | |
| NANC 187 | | | AT&T  1/7/98 | | Linked Action Replies  It has been requested that all action replies be reviewed to determine if they should be linked replies.  Sep 99 LNPA-WG (Chicago), it was requested to merge the NANC 186 text into this change order.  NANC 186 text -- It has been requested that the notification recovery action reply be a linked reply. This would be done to control the size of the response sent back to the Local SMS systems. | | High | | FRS, IIS, GDMO | | Func Backwards Compatible: NO  Related to NANC 186 and NANC 183.  Actions that were identified as issues were the network and subscription version recovery actions. It is suggested that service providers that cannot handle large PDUs request network or subscription version recovery in smaller time intervals. A request has been made to Lockheed to document this in M&P.  NANC 186 text -- Related to ILL 79, NANC 183, and NANC 184. As a work around to the large PDU size in the interim. It is suggested that service providers that cannot handle large PDUs request notification recovery in smaller time intervals.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0 and IIS 3.2.0. | Med | Med / Med | | |
| NANC 191 | | | Ameritech 1/19/1998 | | DPC/SSN Value Edits  It has been requested that DPC and SSN values be edited to make sure that if a SSN is specified that the DPC is specified. This functionality was requested due to a problem with a large port were the DPC and SSN information entered by the originator was invalid. Currently the NPAC SMS does no validity checks on the SSN and DPC information other than it is of the format and type defined in the IIS and FRS. | | High | | FRS, GDMO | | Pure Backwards Compatible: YES  The edits need to be verified by industry experts to insure they are correct. Gary Sacra has taken an action item to obtain more information from T1/S1.6.  Thefollowing information was provided by Gary for DPC/SSN edits:   1. The 9-digit point code (DPC) is broken down into three components: 3-digit 2. Network ID - valid range=001-255 3. 3-digit Cluster ID - valid range=000-255 4. 3-digit Member number - valid range=000-255 5. Subsystem Number (SSN) is a separate three digit number with a valid range of 000-255. 6. It does not make sense in the network to have a DPC without an SSN or vice versa.   Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implmeneted in FRS 3.2.0, IIS 3.2.0 and GDMO 3.2.0. | Low | N/A / N/A | | |
| NANC 192 | | | T&O Conference Call  1/23/1998 | | NPA Split NPAC SMS Load File  It was requested that a file be used to load NPA Split information into the NPAC SMS. This would prevent manual data entry that could introduce errors when entering the NPA Split information. | | High | | FRS, IIS | | Pure Backwards Compatible: YES  John Malyar from Bellcore gathered some information for the group as to whom, how, and when for files containing the data that are distributed in the industry currently.  John indicated that NANPA identifies and announces the split. The LERG has tools to pull data for a split and distribute it electronically. This is one source from which a file can be obtained.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0 and IIS 3.2.0. | Med | N/A / N/A | | |
| NANC 218 | | | Sprint 6/5/1998 | | **Conflict Timestamp Broadcast to SOA**  It has been requested that when a subscription gets placed in conflict, that the time that the subscription version was placed into conflict be broadcast in the status attribute value change notifications to the SOA. Currently it is defined in the IIS on page 262 (version 1.8) that NPAC is not required to send the timestamp information. This change would prevent the service provider SOA from having to query the NPAC anytime they need to retrieve a timestamp. This conflict timestamp is needed so that the new service provider knows when the 6-hour timer has expired and so that they can remove it from. Also the presence of this timestamp indicates if the subscription has been placed into conflict before. | | Med | | IIS | | Pure Backwards Compatible: NO  Func Backwards Compatible: YES  It was noted that a SOA could work around this issue, by automatically querying the NPAC for the conflict timestamp, anytime the SP receives a conflict status for an SV.  Leave on open list for now.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in IIS 3.2.0. | Low | Low / N/A | | |
| NANC 230 | | | Sprint  8/12/98 | | **Allow a Donor SOA to Create a Port-to-Original on an Intra-Service Provider Port**  The current NPAC SMS functionality does not allow a Donor SOA to create a PTO SV with LNPType = LISP.  The business scenario is that a customer is “home'd” to switch A, then moves down the street and is “home'd” to switch B (still in same rate center, so was LISP-ed to switch B), then moves back up the street (and needs to be re “home'd” to switch A, but is still a working number). In this scenario, the SP should send an LISP PTO create and activate. | | High | | FRS, IIS, GDMO | | Func Backwards Compatible: NO  August T&O (Detroit). This change order was opened to replace its "sister" change order, NANC 223.  NEXT STEP: all SPs and vendors should evaluate if this is an acceptable solution, or if there are any operational issues with sending an LISP PTO.  Sep LNPAWG (Seattle), All SPs are O.K. with this change order.  Jim Rooks will look at this, since there may be an NPAC issue. In some current processing the NPAC needs the LNP type and if it is not available, the NPAC looks at the SPID values, and if they are the same, then the NPAC assumes it is LISP. Jim's point is that there may be an interface change. He will report at the next meeting.  Oct LNPAWG (Kansas City), Jim reported that this will NOT require an interface change. It does, however, require a change to the NPAC processing rules. Some of the changes for Pooling help to minimize changes to the NPAC.  This should be moved into the "Accepted" category, awaiting prioritization  (continued) | Med | Med / N/A | | |
| NANC 230 (cont’d) | | |  | |  | |  | |  | | Refer to R4 Change Orders for current proposed resolution.  “accepted” section of this document.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0, IIS 3.2.0 and GDMO 3.2.0. | | | | |
| NANC 246 | | | National Number Pooling Sub-Committee 11/19/98 | | **NPA-NXX Filters for Bulk Data Download files of SVs**  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 1 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. | | Low | | FRS | | Pure Backwards Compatible: YES  Dec LNPAWG (Atlanta), accepted as is. However, low priority.  **December 2000 Meeting**: This change order had been merged into NANC 169. At the December 2000 LNPA WG meeting it was decided to break out use it to apply filters to the Bulk Data Download files. NANC 169 has a requirement to apply filters to the Delta Bulk Data Download files and the group wanted the same function applied to the regular Bulk Data Download files.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Merged with NANC 169 and implemented in FRS 3.2.0. | Low | N/A / N/A | | |
| NANC 249 | | | Sprint 12/9/98 | | **Modification of Dates for a Disconnect Pending SV**  The NPAC should be changed to allow a Service Provider to modify the CDD (Customer Disconnect Date) and ERD (Effective Release Date) for an SV that has a status of “disconnect pending”. | | High | | FRS, IIS, GDMO | | Func Backwards Compatible: NO  The current Service Provider would send a subscriptionVersionModify using an M-ACTION.  subscriptionCustomerDisconnectDate and subscriptionEffectiveReleaseDate would need to be added as modifiable attributes.  A new IIS flow needs to be developed (Subscription Version Modify Disconnect Pending Version Using M-ACTION by a Service Provider SOA).  If the newly modified ERD is the current date or a previous date, the NPAC will follow the “immediate disconnect” flow (6.5.4.1). Otherwise, it’s BAU for the future dated ERD (6.5.4.2).  R5-25 needs to be changed to allow for a modification of an SV with a status of disconnect pending.  R5-36 and R5-38.1 needs the CDD and ERD attributes added to the list.  R5-41 and RR5-41.x need to perform exception processing (i.e., NOT send to LSMSs at this time) of modifications where the new ERD is a future date.  (continued) | Low | Med / N/A | | |
| NANC 249 (con’t) | | | Continued | |  | |  | |  | | New requirements:   1. NPAC SMS shall reject a modification request of an SV with a status of disconnect pending, where the CDD value is zero.   Jan LNPAWG (Atlanta), group O.K. with this change order. Move to accepted list.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0, IIS 3.2.0, GDMO 3.2.0 and ASN.1 3.2.0. | | | | |
| NANC 287 | | | AT&T  5/27/99 | | **ASN.1 Change for Required Field in VersionNewNPA-NXX and VersionNewNPA-NXX-Recovery Notification**  The current ASN.1 has incorrect field definition. The requested change is to make the service-prov-npa-nxx-value of the VersionNewNPA-NXX notification and VersionNewNPA-NXX-Recovery notification a required field instead of 'optional'.  **Current ASN.1:**  VersionNewNPA-NXX ::= SEQUENCE {  service-prov-npa-nxx-id NPA-NXX-ID,  service-prov-npa-nxx-value NPA-NXX OPTIONAL,  service-prov-npa-nxx-effective-time-stamp GeneralizedTime,  service-prov-id ServiceProvId,  access-control LnpAccessControl  }  **Proposed:**  VersionNewNPA-NXX ::= SEQUENCE {  service-prov-npa-nxx-id NPA-NXX-ID,  service-prov-npa-nxx-value NPA-NXX,  service-prov-npa-nxx-effective-time-stamp GeneralizedTime,  service-prov-id ServiceProvId,  access-control LnpAccessControl  }  **Current ASN.1:**  VersionNewNPA-NXX-Recovery ::= SEQUENCE {  service-prov-npa-nxx-id NPA-NXX-ID,  service-prov-npa-nxx-value NPA-NXX OPTIONAL,  service-prov-npa-nxx-effective-time-stamp GeneralizedTime,  service-prov-id ServiceProvId  }  (continued) | | Med | | ASN.1 | | Pure Backwards Compatible: NO  Func Backwards Compatible: YES  June LNPAWG (San Ramon), this also applies to the recovery notification (in addition to the first port notification that is listed in the change order). Update to add recovery notification and review next month.  Jul LNPAWG (Ottawa), it was noted that this is not considered backwards compatible, since it requires a recompile. Move to accepted category.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order. | Low | Low / Low | | |
| NANC 287 (cont’d) | | |  | | **Proposed:**  VersionNewNPA-NXX-Recovery ::= SEQUENCE {  service-prov-npa-nxx-id NPA-NXX-ID,  service-prov-npa-nxx-value NPA-NXX,  service-prov-npa-nxx-effective-time-stamp GeneralizedTime,  service-prov-id ServiceProvId  } | |  | |  | | Implemented in IIS 3.2.0 and ASN.1 3.2.0. |  |  | | |
| NANC 291 | | | Bell Atlantic/ Sprint 7/7/99 | | **SSN Edits in the NPAC SMS**  The NPAC SMS should edit and prevent a new Service Provider CREATE message from specifying final Global Title Translations for CLASS, LIDB, CNAM, ISVM MWI, and WSMSC.  Description of Issue:  There have been instances when the new Service Provider, upon sending the new SP CREATE message to NPAC, has provided final Global Title Translation data for the Destination Point Codes and Subsystem Numbers for CLASS, LIDB, CNAM, and/or ISVM MWI. This final GTT data is broadcasted by NPAC to all applicable subtending service providers in the Region. This has resulted in TCAP routing errors for subtending service providers who do not have route sets built based on final GTT to the new SP.  Proposed Change Order:  Implement an edit in NPAC that will reject a new SP CREATE message if the message contains a Destination Point Code with a non-zero (000) Subsystem Number for CLASS, LIDB, CNAM, ISVM MWI, or Wireless Short Message Service. This edit shall be settable (active or inactive) on a Regional NPAC basis. It shall apply to all DPCs associated with ported and pooled DNs. For 1K block pooling, the NPAC SMS will reject creation of block data containing a non-zero Subsystem Number, whether by NPAC personnel or via the new SP's SOA, if the edit is active.  (continued) | | High | | FRS, GDMO | | Pure Backwards Compatible: YES  Jul LNPAWG (Ottawa), lots of discussion. Some SPs using final, but not sure how much of a problem this is creating. In all cases discussed, led to new SP changing SSN to gateway value instead of final value.  Homework for all SPs for next month. Figure out requirement to broadcast final GTT instead of gateway, and willingness to change this approach. SPs will need to substitute final in their own network. SPs should understand that if no arrangement is set up between the providers, then routing errors (to the new SP’s customer) will occur. This affect creates, modifies, and mass updates.  Aug LNPAWG (Portland), since the conference bridge was not available at the time this was discussed, the group agreed to postpone the discussion until September (assuming a conference bridge was available at that point in time).  Sep LNPAWG (Chicago), much discussion. A vote 10 (for) to 1 (against) was taken to move this change order into the accepted category. | Low | N/A / N/A | | |
| NANC 291 (con’t) | | | continued | |  | |  | |  | | Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0, IIS 3.2.0, GDMO 3.2.0. | | | | |
| NANC 297 | | | Sprint 9/15/99 | | **Sending SV Problem During Recovery**  If an LSMS is down during the broadcast, and the NPAC SMS has sent out the final retry, the LSMS will not be able to recover this broadcast (either in recovery or once recovery is complete and normal processing continues).  It was discussed that the way to ensure the recovering LSMS gets the sending SVs, is to include any of these SVs. By including these, along with the appropriate download reason; the LSMS would be able to recover sending SVs.  New Requirements:  NPAC SMS shall include Subscription Versions with a status of sending, at the time subscription data recovery is requested by the LSMS.  NPAC SMS shall remove a Service Provider from the Failed SP List of a Subscription Version with a status of sending, even if there are additional retry attempts, at the time subscription data recovery is requested by the LSMS of that Service Provider. | | High | | FRS, GDMO | | Pure Backwards Compatible: YES  Sep LNPAWG (Chicago), need to add priority during Oct meeting in KC.  Oct LNPAWG (KC), could have a problem if the SV is sent twice (once for the recovery, and once at the next retry attempt), so the group wants the failed list updated for the recovering SP.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0, IIS 3.2.0 and GDMO 3.2.0. | Med-Low | N/A / N/A | | |
| NANC 316 | | | LNPA WG 8/16/00 | | Change the NSAP Field Size Declaration in ASN.1 – ASN.1 Recompile As described in change order NANC 315 (FRS Document Only Change – NSAP Field Size) that was incorporated in FRS Release 3.0.2, the NSAP field currently uses only 12 of the 20 octets declared as the field size. The other 8 are for a port number but this is not currently used. The ASN.1 should be updated to be a field of size 12 octets. This would eliminate the need for the NPAC software to truncate the data sent by the SOAs and LSMSs.  ASN.1 Update:  OSI-Address ::= SEQUENCE {  nsap OCTET STRING(SIZE(~~20~~***12***)),  tsap OCTET STRING(SIZE(1..4)),  ssap OCTET STRING(SIZE(1..4)),  psap OCTET STRING(SIZE(1..4))  } | | ?LOW | | ASN.1 | | Func Backwards Compatible: **NO**  Need to determine when to implement this change order  This change affects the Modify Customer Profile only.  **October 2000 meeting:** Move to Accepted  **01/02/02** – The CMA did not include this change order in the “Future Release Change Orders” document that was published on 12/21/01 as it is a recompile of ASN.1 only.  **01/16/02** – Upon reconsideration the CMA decided to include this change order in the “Future Release Change Orders” document so it doesn’t get forgotten when a release package is put together. It will appear in the “Future Release Change Orders” document as of 1/30/02. Refer to this document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in IIS 3.2.0, ASN.1 3.2.0. | ??? | ??? | | |
| NANC 319 | | | Verizon  10/25/00 | | **NPAC Edit to Ensure NPA-NXX of LRN is in Same LATA as NPA-NXX of Ported TN**  Local Number Portability (LNP) standards require that service providers assign at least one Location Routing Number (LRN) per switch per LATA that the switch serves. Post-query LNP call processing in the various switch types requires that the NPA-NXX of an LRN that is returned from the database must be in the same LATA as the NPA-NXX of the dialed number.  Currently, the NPAC does not perform any edits on a New Service Provider CREATE or MODIFYmessages in order to ensure that the NPA-NXXs of both the LRN and the ported TN are in the same LATA.  When a call is placed to a ported TN associated with an LRN from an NPA-NXX in a different LATA, the call fails in the originating switch, resulting in a service-affecting condition that is predominantly identified only after customer complaints.  This proposed Change Order is a request for an NPAC edit on New Service Provider CREATE and MODIFYmessages that would reject any CREATE or MODIFYif the NPA-NXXs of the LRN and ported TN contained in the CREATE orMODIFYare not in the same LATA. This edit would eliminate this particular service-affecting condition as well as the expense of trouble-shooting the cause and working with the New Service Provider to modify their LRN. | | ??? | | FRS | | Func Backwards Compatible: ???  **November 2000 meeting:** Currently the NPAC has no concept of a LATA. When a new NPA-NXX is opened the LERG assigns a LATA ID. An NPA can cross LATAs. Every NPA-NXX has a LATA association. It is a 3-digit number. There is one LRN per LATA but there can be multiple NPAs in a LATA and multiple LATAs in an NPA. This edit would ensure that the NPA-NXX of the TN and the NPA-NXX of the LRN is the same. LATAs can cross NPAC regions. The LERG would be the source of the LATA information rather than the Service Providers. If there is no LATA in the LERG information for the NPA-NXX or the LRN then the NPAC would reject the create request. If there were a modification of an LRN to active SVS or in a Mass Update this edit would have to be applied. This would also apply to Pooled Blocks. LATA should not be criteria for Mass Update.  **December 2000 Meeting:** Group accepted this change order. It was also determined that the change order needed to cover Modifies as well as Creates.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0. | ??? | N/A / N/A | | |
| NANC 322 | | | LNPA WG 12/13/00 | | **Clean Up of Failed SP Lists Based on Service Provider BDD Response File**  **Business Need:**  During discussion of change order NANC 169 at the December 2000 LNPA WG meeting it was decided to write a new change order to address the clean up of Failed SP Lists once a service provider received and processed a Bulk Data Download File or a Delta Bulk Data Download File and responded to the NPAC with its Service Provider Response File.  **Description of Change:**  It has been requested that NPAC clean up Failed SP Lists using data received in the Service Provider Response File resulting from the processing of a Bulk Data Download File or a Delta Bulk Data Download File. | | ??? | | FRS | | Pure Backwards Compatible: **Yes**  **January 2001 meeting:** Accepted  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  Implemented in FRS 3.2.0. | ??? | N/A / ??? | | |
| NANC 323 | | | LNPA WG 01/10/01 | | **Partial Migration of a SPID via Mass Update**  During the January 2001 LNPA WG meeting there was much discussion on the NANC 217 change order and it was decided that it would be best to have two change orders for updating of SPIDs. NANC 217 would be retained and used to cover the simple case where a SPID is being completely retired (merger or acquisition) and a new change order created to cover the partial update of a SPID. | | ??? | | FRS | | When there is a need to migrate a portion of one SPIDs data to another SPID a mass update with Service Provider notifications suppressed will be used. Service Providers receive a file from NPAC with information they can use to update their databases.  **February 2001 meeting:** Accepted  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **10/01/02** – Refer to the R3.2 Change Order document for the latest information on this change order.  NANC 217 – Mass Update of SPID has been merged into this change order.  Implemented in FRS 3.2.0. | High | ???/??? | | |
| NANC 332 | | | NeuStar 09/10/01 | | **Doc Only Change Order for FRS:** Clarification of requirement RR5-42.1.  Currently reads:  **RR5‑42.1 Conflict Subscription Version - Old Service Provider Number Restriction**  NPAC SMS shall only allow a subscription version to be placed into conflict by the Old Service provider one time.  Change to read:  **RR5‑42.1 Conflict Subscription Version - Old Service Provider Number Restriction**  NPAC SMS shall only allow a subscription version to be placed into conflict by the Old Service provider one time, ***which includes the changing of the cause code on a subscription version.*** | | High | | FRS | | Incorporate the correction into the FRS and-publish with the next release.  **October 2001 meeting:** Accepted by LNPA WG. To be included in next release of FRS. Move to “Next Documentation Release Change Orders” sub-section of the “Accepted Change Orders” section of this document.  Implemented in FRS 3.2.0. | N/A | N/A / N/A | | |
| NANC 333 | | | TSE 09/26/01 | | **Doc Only Change Order for GDMO & IIS:** Clarification needed in the GDMO & two IIS Flows for the subscriptionVersionRangeObjectCreation notification (one of the new range notifications in change order NANC 179 for NPAC SMS Release 3.1).  In the ObjectInfo for subscriptionVersionRangeObjectCreationInfo there are attribute assertions for subscriptionVersionId and subscriptionTN as is done for the single objectCreation notification for a subscription version. These values would be the SVID and TN for the first TN in the list or range for the subscriptionVersionRangeObjectCreation notification.  (continued) | | HIGH | | GDMO/IIS | | Incorporate into the GDMO and IIS immediately and re-publish these documents as Release 3.1.1  **October 2001 meeting:** Accepted by LNPA WG. To be included in next release of GDMO & IIS. Move to “Next Documentation Release Change Orders” sub-section of the “Accepted Change Orders” section of this document. | N/A | N/A / N/A | | |
| NANC 333 (cont’d) | | |  | | **GDMO changes needed for clarification of the subscriptionVersionRangeObjectCreation notification:**  lnpSubscriptionsBehavior BEHAVIOUR  DEFINED AS !  Local SMS and NPAC SMS Managed Object  The Local SMS (Data Download Association Function) and the service  provider SOA (SOA Management Association Function) can M-GET any  lnpSubscriptions object. The lnpSubscriptionsName attribute  is read only and can not be changed via the Local SMS Interface  once the object has been created. The value of  lnpSubscriptionsName will always be "lnpSubscriptions".  The SOA receives subscriptionVersionRangeObjectCreation notifications  if their Service Provider TN Range Notification Indicator is set to  TRUE on the NPAC SMS. The subscriptionVersionRangeObjectCreationPkg is  used to send the subscriptionVersionRangeObjectCreation notification.  When this package is sent, it will include one set of information for  the TN range, plus a paired list of TN/Subscription Version ID  combinations. If the feature data does not apply to all TNs in the  range, notifications will be broken up into smaller TN Range  Notifications such that the feature data applies to all TNs in the  smaller TN Range, and will be sent in separate messages.  **The ObjectInfo field will contain the same data as the current object**  **creation notifications sent to the old and new service provider. The**  **TN and SVID fields that are sent in the single object creation**  **notification will contain the TN and subscription version id for the**  **first TN in the range or list.**  (continued) | | | | | | | | | | |
| NANC 333 (cont’d) | | |  | | -- 16.0 LNP Subscription Version Range Object Creation Notification  subscriptionVersionRangeObjectCreation NOTIFICATION  BEHAVIOUR subscriptionVersionRangeObjectCreationBehavior;  WITH INFORMATION SYNTAX LNP-ASN1.VersionRangeObjectCreation  AND ATTRIBUTE IDS  range-object-creation-info subscriptionVersionRangeObjectCreationInfo,  access-control accessControl;  REGISTERED AS {LNP-OIDS.lnp-notification 16};  subscriptionVersionRangeObjectCreationBehavior BEHAVIOUR  DEFINED AS !  This notification type is used to report creation of subscription  versions for range operations. It uses the object creation  notification as defined in M.3100.  The service provider supports this notification if the Service  Provider TN Range Notification Indicator is set on the NPAC SMS and  the service provider will no longer receive an  object creation notification for a subscription version.  **This ObjectInfo field will contain the same data as the current**  **object creation notifications sent to the old and new service**  **provider. The TN and SVID fields that are sent in the single**  **object creation notification will contain the TN and**  **subscription version id for the first TN in the range or list.**  This notification is prioritized and transmitted  according to its SOA Notification Priority tunable in the NPAC  SMS.  **IIS changes need for clarification subscriptionVersionRangeObjectCreation notification:**  For flow B.5.1.1, step 5 should be changed as follows:  (continued) | | | | | | | | | | |
| NANC 333 (cont’d) | | |  | | 1. If the M-ACTION was successful, the NPAC SMS issues, depending upon the old service provider’s TN Range Notification Indicator, an objectCreation or subscriptionVersionRangeObjectCreation M-EVENT-REPORT containing the following attributes to old service provider SOA of subscriptionVersionNPAC creation:   ***subscriptionVersionId***  subscriptionTN  subscriptionOldSP  subscriptionNewCurrentSP  subscriptionOldSp-DueDate  subscriptionOldSP-Authorization  subscriptionOldSP-AuthorizationTimeStamp  subscriptionStatusChangeCauseCode  (if subscriptionOldSP-Authorization set to false)  subscriptionVersionStatus  ***If the notification is a subscriptionVersionRangeObjectCreation then the TN and SVID are the TN and SVID of the first TN in the range or list.***  For flow B.5.1.2, step 5 should be changed as follows:   1. If the M-ACTION was successful, NPAC SMS issues, depending upon the old service provider’s TN Range Notification Indicator, an objectCreation or subscriptionVersionRangeObjectCreation M-EVENT-REPORT containing the following attributes to old service provider SOA of subscriptionVersionNPAC creation:   ***subscriptionVersionId***  subscriptionTN  subscriptionOldSP  subscriptionNewCurrentSP  subscriptionNewSP-CreationTimeStamp  subscriptionVersionStatus  subscriptionNewSP-DueDate  ***If the notification is a subscriptionVersionRangeObjectCreation then the TN and SVID are the TN and SVID of the first TN in the range or list.***  Implemented in IIS 3.2.0 and GDMO 3.2.0. | | | | | | | | | | |
| NANC 334 | | | ESI 10/02/01 | | **Doc Only Change Order for FRS:** Clarification needed in Items L-11.0 F & G in Table C-7 of Appendix C in the FRS.  Currently Item L-11.0 F reads:  **Subscription Version Status Attribute Value Change Notification – Modify active**  When an *Active* SV has been modified in the LSMS and the status of the SV has been re-set to Active (with or without a Fail-SP-List). The notification is sent only to the current SOA.  Should read:  **Subscription Version Status Attribute Value Change Notification – cancel pending**  When an *Active* SV has been modified in the LSMS ***or there has been a cancellation of a disconnect-pending SV*** and the status of the SV has been re-set to Active (with or without a Fail-SP-List). The notification is sent only to the current SOA.  Currently Item L-11.0 G reads:  **Subscription Version Status Attribute Value Change Notification – cancel pending**  When a *Pending* SV has been cancelled by the Old SP and the NPAC SMS has set the SV status to *Cancel*-*Pending*. The notification is sent to both SOAs: Old and New.”  (continued) | | High | | FRS | | Incorporate into the FRS and publish with the next release.  **11/14/01** – Reviewed at November 2001 LNPA WG. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  This is post SOW 28 (Release 3.1) but is already in the Release 3.1 software. Has been confirmed that it is being implemented in the software.  **12/12/01** – NeuStar expects to have info for the January 2002 meeting.  **01/09/02** – NeuStar confirmed that this change order does not have any impacts to SOW 28. Move to “accepted” to be incorporated into the next release of the FRS. | N/A | N/A / N/A | | |
| NANC 334 (cont’d) | | |  | | Should read:  **Subscription Version Status Attribute Value Change Notification – cancel pending**  When a *Pending* ***or Conflict*** SV has been cancelled by the Old ***or New*** SP and the NPAC SMS has set the SV status to *Cancel*-*Pending*. The notification is sent to both SOAs: Old and New. | |  | |  | | Implemented in FRS 3.2.0. |  |  | | |
| NANC 335 | | | LNPA WG 10/10/01 | | **Doc Only Change Order for GDMO:** Update GDMO to explain how the Primary/Secondary Service Provider situation works with Range notifications.  **At the end of section 14.0 LNP Subscriptions Managed Object Class add the following text:**  Range notifications are formatted according to the Service Provider Profile. If a Service Provider is an associated Service Provider to a primary Service Provider then the primary Service Provider SOA must be able to accept the notifications in the format indicated in the associated Service Provider Profile. | | Medium | | GDMO, IIS | | Incorporate into next release of GDMO and IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG meeting. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0 and GDMO 3.2.0. | N/A | N/A / N/A | | |
| NANC 336 | | | CMA 10/25/01 | | **Doc Only Change Order for IIS:** Flows B.4.4.3 and B.4.4.6 have typos that need to be corrected.  The notes at the end of the diagram and the end of the text need to be corrected as follows:  Note at end of diagram currently reads:  NPAC SMS waits for all the subscriptionVersionLocalSMS-CreateResults notifications (default 1 hour)  Should read:  NPAC SMS waits for all the subscriptionVersionLocalSMS-***Action***Results notifications (default 1 hour)  Note at end of text currently reads:  The NPAC SMS now waits for all the subscriptionVersionLocalSMS-CreateResults M-EVENT-REPORTs a tunable amount of time (default 1 hour)  Should read:  The NPAC SMS now waits for all the subscriptionVersionLocalSMS-***Action***Results M-EVENT-REPORTs a tunable amount of time (default 1 hour) | | Low | | IIS | | Incorporate into next release of IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0. | N/A | N/A / N/A | | |
| NANC 337 | | | CMA 10/25/01 | | **Doc Only Change Order for IIS:** Flow B.8.3 – note at the beginning of the text needs to be updated.  Currently reads:  Search the subscription database for subscription versions that match the specified mass update criteria. Perform steps c-through-f for the allowable range of subscription versions. The NPAC logs as errors subscription versions that match the mass update criteria but are in the wrong state.  Should read:  Search the subscription database for subscription versions that match the specified mass update criteria. Perform steps ***1*** through **4** for the allowable range of subscription versions. The NPAC logs as errors subscription versions that match the mass update criteria but are in the wrong state. | | Low | | IIS | | Incorporate into next release of IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0. | N/A | N/A / N/A | | |
| NANC 338 | | | R3.1 Test Review Group 10/5/01 | | **Doc Only Change Order for FRS:** Add requirement for NPAC SMS sending subscriptionVersionDonorSP-CustomerDisconnectDate notifications to the Donor SP SOA when a Number Pool Block De-Pool occurs and update the note in requirement RR5-85.  RR5-85 Currently reads:  RR5-85 Number Pooling Subscription Version Information – Suppression of Notifications  NPAC SMS shall suppress status change and attribute value change notifications to the old and new/current service provider SOA systems for Subscription Versions with LNP Type of POOL. (Previously SV-2)  NOTE: This includes creation, modification, deletion, re-send, resync, audits, and mass update. An exception to the deletion is the donor disconnect notification in a de-pool situation. This notification will still be sent to the Code Holder, which informs the Code Holder of the responsibility to provide vacant number treatment upon a de-pool of a 1K Block. This notification is the same that is sent for a disconnect of a ported SV in a non-pooling environment.  (continued) | | High | | FRS | | Corresponding IIS Doc Only Change Order is NANC 339  Incorporate into next release of FRS.  **11/14/01** – Reviewed at November 2001 LNPA WG. NeuStar has verified that the implementation supports the new requirement.  Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’. | N/A | N/A / N/A | | |
| NANC 338 (cont’d) | | |  | | RR5-85 is amended to read:  RR5-85 Number Pooling Subscription Version Information – Suppression of Notifications  NPAC SMS shall suppress status change and attribute value change notifications to the old and new/current service provider SOA systems for Subscription Versions with LNP Type of POOL. (Previously SV-2)  NOTE: This includes creation, modification, deletion, re-send, resync, audits, and mass update. ~~An exception to the deletion is the donor disconnect notification in a de-pool situation. This notification will still be sent to the Code Holder, which informs the Code Holder of the responsibility to provide vacant number treatment upon a de-pool of a 1K Block. This notification is the same that is sent for a disconnect of a ported SV in a non-pooling environment.~~  Requirement to be added:  RR5-85.5 Number Pooling Subscription Version Information – Disconnect Notifications to Donor Service Provider  NPAC SMS shall send donor disconnect notifications to the Donor Service Provider (Code Holder) when a Number Pool Block De-pool occurs.  Implemented in FRS 3.2.0. | | | | | | | | | | |
| NANC 339 | | | R3.1 Test Review Group 10/5/01 | | **Doc Only Change Order for IIS:** Flow B.4.4.24 to include the Donor Disconnect notifications that get sent to the Donor SOA when a Number Pool Block De-pool occurs.  Steps will be inserted in the flow diagram and the flow text between the existing steps 8 and 9 as follows:  NPAC SMS sends, depending upon the donor service provider’s TN Range Notification Indicator, a subscriptionVersionDonorSP-CustomerDisconnectDate or subscriptionVersionRangeDonorSP-CustomerDisconnectDate notification to the donor service provider SOA that the subscription version is being disconnect with the customer disconnect date.  The donor service provider SOA confirms the M-EVENT-REPORT. | | High | | IIS | | Corresponding FRS Doc Only Change Order is NANC 338.  Incorporate into next release of IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG. NeuStar has verified that the implementation supports the new requirement. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0. | N/A | N/A / N/A | | |
| NANC 341 | | | CMA 11/6/01 | | **Doc Only Change Order for GDMO:** Section7.0 LNP Subscription Version Modify Action – Clarification of allowable modify activities for subscription versions with status of ‘conflict’.  Currently reads:  Old service providers can only modify the following attributes for pending or conflict subscription versions:  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  subscriptionStatusChangeCauseCode  Change to read:  Old service providers can only modify the following attributes for pending ~~or conflict~~ subscription versions:  subscriptionOldSP-DueDate  subscriptionOldSP-Authorization  subscriptionStatusChangeCauseCode  ***If the subscription version has a status of conflict, only the subscriptionOldSP-DueDate can be modified because a subscription version can only be put into conflict one time***. | | High | | GDMO, IIS | | This change order is in conjunction with the NANC 332 FRS Doc Only change order which clarifies requirement RR5-42.1 Conflict Subscription Version – Old Service Provider Number Restriction.  Incorporate into next release of GDMO and IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0 and GDMO 3.2.0. | N/A | N/A / N/A | | |
| NANC 342 | | | CMA 11/6/01 | | **Doc Only Change Order for IIS:** Flow B.5.1.5 – Text at end of this flow needs clarification.  Currently reads:  For subscription versions that are not being ported to the original service provider’s switch, processing continues in the “Active SubscriptionVersion Create on Local SMSs” flow.  For ports to the original service provider’s switch, the flow follows an immediate disconnect scenario. The NPAC SMS sets the broadcast timestamp, notifies the service provider SOA of the status change and proceeds to issue M-DELETEs for the subscriptionVersion to the Local SMS.  Change to read:  For subscription versions that are not being ported to the original service provider’s switch, processing continues in ~~the~~ ***Flow B.5.1.6.1 - Active SubscriptionVersion Create on Local SMSs Using Create Action*** ~~flow~~.  For ports to the original service provider’s switch~~, the flow follows an immediate disconnect scenario. The NPAC SMS sets the broadcast timestamp, notifies the service provider SOA of the status change and proceeds to issue M-DELETEs for the subscriptionVersion to the Local SMS~~ ***(PTO) follow Flows B.5.1.12 – ‘Subscription Version Port-to-Original: Successful’ and B.5.1.12.1 – ‘Subscription Version Port-to-Original: Successful (continued)’.*** | | Low | | IIS | | Incorporate into next release of IIS.  **11/14/01** – Reviewed at November 2001 LNPA WG. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until December 2001 meeting.  **12/12/01** – Move to ‘accepted’.  Implemented in IIS 3.2.0 and GDMO 3.2.0. | N/A | N/A / N/A | | |
| NANC 344 | | | AT&T 11/2 | | **Doc Only Change Order for GDMO:** Update GDMO to more clearly explain information in range notifications.  Update the text in section 14.0 Subscriptions Managed Object Class.  **The text for** subscriptionVersionRangeStatusAttributeValueChange and subscriptionVersionRangeAttributeValueChange notifications **currently reads**:  When this package is sent, it will include one set of information for the TN range, plus a list of Subscription Version IDs. If the feature data does not apply to all TNs in the original range, notifications will be broken up into smaller TN Range Notifications such that the feature data applies to all TNs in the smaller TN range, and will be sent in separate messages.  **Change to read:**  When this package is sent, it will include one set of information for the TN range, ~~plus a list of Subscription Version IDs~~. ***If the SVIDs are sequential for the TNs then an SVID range will be included. If the SVIDs are not sequential then a paired list of SVIDs and TNs will be sent*.** If the feature data does not apply to all TNs in the original range, notifications will be broken up into smaller TN Range Notifications such that the feature data applies to all TNs in the smaller TN range, and will be sent in separate messages.  (continued) | | Low | | GDMO/IIS | | Incorporate into next release of GDMO and IIS  **12/12/01** – Reviewed at December 2001 LNPA WG meeting. Service Providers to verify internally that this change order does not have an impact on their local systems. Leave in “open” status until January 2002 meeting.  **01/09/02** – Move to ‘accepted’. | N/A | N/A / N/A | | |
| NANC 344 (cont’d) | | |  | | **The text for**  subscriptionVersionRangeObjectCreation, subscriptionVersionRangeDonorSP-CustomerDisconnectDate, subscriptionVersionRangeCancellationAcknowledge, subscriptionVersionRangeNewSP-CreateRequest, subscriptionVersionRangeOldSP-ConcurrenceRequest, subscriptionVersionRangeOldSP-FinalConcurrenceWindowExpiration, and subscriptionVersionRangeNewSP-FinalCreateWindowExpiration notifications **currently reads**:  When this package is sent, it will include one set of information for the TN range, plus a paired list of TN/Subscription Version ID combinations. If the feature data does not apply to all TNs in the original range, notifications will be broken up into smaller TN Range Notifications such that the feature data applies to all TNs in the smaller TN range, and will be sent in separate messages.  **Change to read:**  When this package is sent, it will include one set of information for the TN range, plus a paired list of TN/Subscription Version ID combinations ***or a range of TNs and Subscription Version Ids if the Subscription Version Ids are sequential.*** If the feature data does not apply to all TNs in the original range, notifications will be broken up into smaller TN Range Notifications such that the feature data applies to all TNs in the smaller TN range, and will be sent in separate messages.  Implemented in IIS 3.2.0 and GDMO 3.2.0. | | | | | | | | | | |
| NANC 345 | | | CMA 01/02/02 | | **Doc Only Change Order for FRS:** Update the Subscription Tunables Table in Appendix C.  The subscription tunables table in Appendix C of the FRS is out of date. Update it to be exactly like the revised table in the R3.1 Methods and Procedures document. | | Medium | | FRS | | Incorporate into next release of the FRS.  **01/09/02** – Reviewed at January 2002 LNPA WG meeting. Leave in “open” status until February 2002 meeting.  **01/10/02** – Subscription Tunable table reviewed by NeuStar (Jim Rooks) to ensure it did not contain any system tunables. Jim responded that the table is correct.  Implemented in FRS 3.2.0. | N/A | N/A / N/A | | |
| NANC 354 | | | Telcordia 4/12/02 | | **Delta Download File Creation by Time Range for network data (cousin of NANC 169)**  **Business Need:**  ((the following text is copied from the existing NANC 169 change order).  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.  (New text for NANC 354, which is a variant of NANC 169)  With this change order the NPAC will have the ability to generate a delta BDD file for NPA-NXX, LRN, and NPA-NXX-X data. | |  | | FRS | | Func Backwards Compatible: YES  ((the following text is copied from the existing NANC 169 change order).  Need to change functionality when requesting NPA-NXX, LRN, and NPA-NXX-X BDD with a time range. Currently, the NPAC provides all data (no selection criteria available).  The start and end time ranges will be included in the file name.  (New text for NANC 354, which is a variant of NANC 169)  For NPA-NXX and LRN the time range will be based on CreationTimeStamp, and for NPA-NXX-X the time range will be based on ModifiedTimeStamp.  Delta BDD functionality for network data will provide the latest view of activity in the file (e.g., if an NPA-NXX is added, then deleted, the BDD file would contain the last activity, “delete this NPA-NXX”).  For NPA-NXX and LRN, the activity includes adds and deletes. For NPA-NXX-X, the activity includes adds, modifies, and deletes.  NOTE: The implementation of NANC 356 will introduce modifications to NPA-NXX.  Implemented in FRS 3.2.0. | Med-Low | TBD / TBD | | |
| NANC 356 | | | Bellsouth 4/12/02 | | **Unique Identifiers for wireline versus wireless carriers (interim solution)**  **Business Need:**  It is proposed that an Interim Solution be developed to allow NPAC registered Wireless Service Providers to be identified as such and that the information be made available by the NPAC upon request to be downloaded to requesting Service Providers in the form of a file. The file would contain the SPID and Service Provider name of each registered Wireless Service Provider in each region requested by the requesting Service Provider. This need will grow with the advent of Wireless LNP.  It is also proposed that any future additions, deletions or modifications to the Service Provider network data for a Wireless Service Provider be indicated in the format agreed upon and included in the subsequent broadcast data for the Wireless Service Provider.  Inclusion of Wireline Service Provider indicators should be considered as well but is not necessary during the interim solution.  This interim solution would be replaced by the long term solution provided by the associated NANC Change Order, 357. | |  | | FRS, IIS, GDMO | | Func Backwards Compatible: NO  Change the NPAC to provide the ability to indicate a Service Provider as either a Wireless Service Provider or Wireline Service Provider.  The interim solution could take advantage of the properties of the existing ServiceProvName field in the Service Provider Network data for each Service Provider. This name field would be modified by NPAC personnel to uniquely identify an NPAC registered Service Provider as a Wireless Service Provider. The Wireline Service Providers could be identified as such as well, however that is not necessary as long as the Wireless Service Providers are identified as Wireless Service Providers at a minimum.  The type of indicator used in the interim method was discussed in March 2002. Jim Rooks proposed that a delimiter and a unique identifier be added to the end of the Service Provider name data for each registered Wireless Service Provider to eliminate any sorting issues that may arise if the change was made to the beginning of the SP Name field..  The proposed interim approach would be to append a ‘/1’ for wireline providers, ‘/2’ for wireless providers, and ‘/3’ for others.  (continued) | Med-Low |  | | |
| NANC 356 (cont) | | |  | |  | |  | |  | | An action item was assigned to all to investigate whether there were any foreseeable issues that may arise as a result of adding the delimiter/indicator at the end of the SP Name data. |  |  | | |

# Release 3.2.1

| **Release 3.2.1 Implemented/Closed Change Orders** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | | **Level of Effort** | | | |
|  | | |  |  |  |  |  | | **NPAC** | | **LSMS SOA** | |
| NANC 360 | | NeuStar 4/12/02 | **Doc Only Change Order for Recovery:** Maximum TN Recovery Tunable  A recent business situation has created an implementation of a new Service Provider-specific tunable. This doc-only change order will add this definition to the appropriate documentation. |  | FRS, IIS, GDMO | Func Backwards Compatible: YES  Change the current documentation to explicitly state that the Service Provider-specific tunable (Maximum\_TN\_Recovery) is a tunable with a range of 1-10000, a default value of 2000, and is applicable for time-based recovery.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a and GDMO 3.3.0. | | | N/A | N/A / N/A | |
| NANC 365 | | TSE 8/30/02 | **Doc Only Change Order for IIS/GDMO:** PTO and SV Query discrepancies between the two documents  1. PTO Processing Discrepencies  The GDMO states for subscriptionVersionNewSP-CreateBehavior that the new service provider must specify valid values for the LRN and GTT data. In addition it states, "If the value of subscriptionPortingToOriginal-SPSwitch is TRUE, the LRN and GTT data should be specified as NULL." However, data flows B.5.1.2 and B.5.1.3 both state that LRN and GTT data must be provided UNLESS subscriptionPortingToOriginal-SP is true. So, in the one case the requirement is to provide NULL values for LRN and GTT data and in the other case the requirement is to not provide LRN and GTT data. The GDMO and the data flows need to be made consistent.  2. SV Query Discrepencies  The GDMO states for subscriptionVersionNPAC-Behavior that subscriptionTimerType and subscriptionBusinessType are only returned on SOA queries to service providers that support these attributes. However, data flow B.5.6 shows that subscriptionTimerType and subscriptionBusinessType are returned unconditionally. The GDMO and the data flow need to be made consistent. |  | IIS, GDMO | Pure Backwards Compatible: YES  Change the current documentation to be consistent and reflect the current behavior.  **Jan ’03 LNPAWG**, approved, move to accepted category. Need to verify if it should be NULL or not specified. Update the documentation to reflect this.  Upon further analysis, it was determined that the correct reference should be the following:  - PTO - “not specified”  - SV Query – “returned only if the SOA supports these attributes”  Item #1 required a change to the GDMO. This was implemented in GDMO 3.3.0.  Item #2 required a change to IIS flow 5.6. This was implemented in IIS 3.2.1a. | | | N/A | N/A / N/A | |
| NANC 366 | | NeuStar 9/18/02 | **Doc Only Change Order for FRS/IIS:** Remove references that specify GUI is in Central Time  Central Time references need to be corrected. According to the current specification, the NPAC GUI is shown in Central Time. However, the displayed time zone is based on the local time zone selected for that specific PC. This change order requests that the time zone reference be corrected to avoid confusion. |  | FRS, IIS | Pure Backwards Compatible: YES  Change the current documentation to correct hard-coded references to Central Time. Both the FRS and IIS should be checked for this update.  **Jan ’03 LNPAWG**, approved, move to next documentation category. The only exceptions to this rule are the two fields in the Number Pool Block.  Implemented in FRS 3.2.1a and IIS 3.2.1a. | N/A | | | N/A / N/A | |
| NANC 367 | | NeuStar 9/20/02 | **Doc Only Change Order for FRS:** Requirements Updates  During the Sep ’02 LNPAWG meeting, a discussion took place surrounding CMIP Departure Time, and the desire to extend this from the current five (5) minute value, out to fifteen (15) minutes. Jim Rooks stated that this is a tunable within the NPAC, and could be updated based on the standard written request from NAPM.  Service Providers are encouraged to analyze any impacts to their internal systems. |  | FRS | Pure Backwards Compatible: YES  Change the requirements and tunables appendix to reflect the current behavior, and default value (new text is **bold**).  R7-105.2 Generalized Time **– Valid Message Timeframe**  SOA to NPAC SMS interface and the NPAC SMS to Local SMS interface shall ensure that external messages received have a generalized time in the access control information within ~~5~~ **the *Departure Time Threshold* tunable number of** minutes of the NPAC SMS system clock.  **R7-105.3 Generalized Time – Departure Time Threshold Tunable Parameter**  **NPAC SMS shall provide a *Departure Time Threshold* tunable which is defined as the maximum number of minutes of difference between the departure time of a message from the sending system, and the receipt of that message at the receiving system.**  **R7-105.4 Generalized Time – Departure Time Threshold Tunable Parameter Default**  **NPAC SMS shall default the *Departure Time Threshold* tunable parameter to five (5) minutes.**  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a. | | | N/A | N/A / N/A | |
| NANC 369 | | TSE 10/23/02 | **Doc Only Change Order for IIS:** Flow Updates  Flow B.5.4.7.3 (SV disconnect with effective release date of ported-pooled-TN), correction changes needed in steps 4 and 5. The current drawing references a donor-disconnect notification going to the Block Holder SOA. These should be changed to a status attribute change (disconnect-pending) to the current SOA. Also, add reference to “Effective Release Date” at end of flow. |  | IIS | Pure Backwards Compatible: YES  Change the current documentation to reflect the current behavior.  **Nov ’02 LNPAWG**, approved, move to next documentation category.  Implemented in IIS 3.2.1a. | | | N/A | N/A / N/A | |
| NANC 371 | | AT&T 11/6/02 | **Doc Only Change Order for Audits:** Update Behavior  The current documentation does NOT explicitly state that the NPAC requires audit names to be unique. |  | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Update the documentation to reflect the behavior of audit name within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS flows in IIS 3.2.1a. Implemented in GDMO 3.3.0. | | | N/A | N/A / N/A | |
| NANC 373 | | NeuStar 11/19/02 | **Doc Only Change Order:** Conflict AVC  The current documentation does NOT list the AttributeValueChange notification when the NPAC automatically sets an SV from cancel-pending to conflict, upon exipiration of the appropriate timer. |  | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this notification within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a. Implemented in GDMO 3.3.0. | | | N/A | N/A / N/A | |
| NANC 374 | | NeuStar 11/20/02 | **Doc Only Change Order:** PTO SP  The current documentation does NOT indicate that for a PTO subscription version, the new SP must be the code holder (block holder if a NPB exists). |  | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this PTO SV activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a (flow B.5.1.11).  Implemented in GDMO 3.3.0. | | | N/A | N/A / N/A | |
| NANC 376 | | NeuStar 12/2/02 | **Doc Only Change Order:** Modify Active with Failed List  The current documentation does NOT indicate that for a Modify Active of a subscription version with an existing Failed List, should be rejected by the NPAC. |  | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this Modify Active SV activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in IIS 3.2.1a (update to B.2.1). Implemented in FRS 3.3.0a (new requirement RR5-136). Implemented in GDMO 3.3.0. | | | N/A | N/A / N/A | |
| NANC 377 | | NeuStar 12/4/02 | **Doc Only Change Order:** Missing IIS Flow for 2nd Create by Old SP with Auth=FALSE  The current documentation does NOT have an IIS flow for this scenario. |  | FRS, IIS, GDMO | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this Old SP Create activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in IIS 3.2.1a (updated B.5.1.1). | | | N/A | N/A / N/A | |
| NANC 378 | | TSE 12/5/02 | **Doc Only Change Order:** Missing IIS Flow for cancellation of a disconnect-pending SV  The current documentation does NOT have an IIS flow for this scenario. |  | IIS, GDMO | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this cancellation activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in IIS 3.2.1a (added B.5.3.4). | | | N/A | N/A / N/A | |
| NANC 379 | | TSE 12/11/02 | **Doc Only Change Order:** Update IIS Flow, 5.1.18  Need update to flow 5.1.18, SubscriptionVersion Inter-Service Provider Create by either SOA (Old or New Service Provider) with no Currently Active Subscription Version, Prior to the NPA-NXX Effective Date – Error.  This flow was the result of NANC 303 implemented in the 3.0.1 FRS 'doc-only' release. The phrasing is not correct as it is impossible to have a currently active SV for a TN prior to the NPA-NXX Effective Date.  Text also has incorrect reference to error in the text of step 2. |  | IIS | Pure Backwards Compatible: YES  TSE’s proposed words:  "SubscriptionVersion Inter-Service Provider Create by either SOA (Old or New Service Provider) with a Due Date which is Prior to the NPA-NXX Effective Date – Error". The descriptive text in the flow should be reviewed for appropriate re-wording as well.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Change step 2 to match the current behavior, from “soa-not-authorized” to “failed”.  Implemented in IIS 3.2.1a. | | | N/A | N/A / N/A | |
| NANC 380 | | TSE 1/23/03 | **Doc Only Change Order: IIS Updates**  1. IIS Flow 5.6.1 – Picture indicates “SOA/LSMS”, but title and text refer to LSMS (only).  2. IIS Flow 5.5.5 – Subscription Version Conflict Removal by the old Service Provider SOA. In steps 9 and 11, incorrect reference to RangeStatusAttributeValueChange.  3. IIS Flow 5.1.15.1 and 5.1.16 – SV PTO Resend. Notifications are reversed between Old SOA and New SOA.  4. IIS Flow 4.4.21 – Discrepancy between flow and text in step 5. Flow incorrectly shows status as “failed” rather than “active”. |  |  | Update IIS.  1. Correct picture (remove the word “SOA”).  2. Correct the notification reference (change from an SAVC to an AVC).  3. Correct picture and text (change to reflect behavior, Old SOA – both SV1 and SV2, New SOA – just SV2).  4. Correct the flow (change from “failed” to “active”) to match the status in the text.  Implemented in IIS 3.2.1a. | | | N/A | N/A / N/A | |
| NANC 381 | | TSE 1/27/03 | **Doc Only Change Order: FRS Updates**  1. FRS Section 3.5.1 – NPA-NXX-X Holder, NPA Splits. Text uses the term “NPA-NXX-X Holder Information”, but the reference is to the dash-x, not the owner of the dash-x.  2. NANC 323 Requirements – Requirements currently state that “pending-like” NPBs and Pooled SVs will not be migrated. A discrepancy occurs when you have Pooled data with a status of “failed” (considered “pending-like”). The parent NPA-NXX-X will be migrated, but the subordinate details (NPB and Pooled SVs) will not be migrated. |  |  | Update FRS.  1. Correct text (remove the word “Holder”). Same text applies to RR5-59. Also, check other requirements to see if apply there as well.   1. Change the text to indicate that NPBs and Pooled SVs will be migrated for “failed” status.   Implemented in FRS 3.2.1a. | | | N/A | N/A / N/A | |

# Release 3.2.2

| **Release 3.2.2 Implemented/Closed Change Orders** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | | |
|  | | |  |  |  |  |  | **NPAC** | | **LSMS SOA** | |
| NANC 395 | | LNPA WG  6/30/04 | **LATA ID and NPA Split Reference Files**  **Business Need:**  1. Need to update source files references. Specifically, references to “Telcordia LERG” should be changed to “an industry source”. | TBD | FRS, IIS | Func Backwards Compatible: YES  Update the current documentation to reflect the source files references.  Implemented in FRS 3.2.2a | | N/A | N/A / N/A | |

# Release 3.3.0

| **Release 3.3.0 Implemented/Closed Change Orders** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | | | | | **Orig. / Date** | | | | **Description** | | **Priority** | | | | | | | | | **Category** | | | **Final Resolution** | | | | | | | **Level of Effort** | | | | | | | | | | | | | | | | | | |
|  | | | | | |  | | | |  | |  | | | | | | | | |  | | |  | | | | | | | **NPAC** | | | | | | | | **LSMS SOA** | | | | | | | | | | |
| ILL 130 | | | | | | AT&T  1/6/97 | | | | **Application Level Errors**  Errors in the SOA and LSMS interfaces are being treated as CMIP errors and it may sometimes be difficult for a SOA to know the true reason for an error from the NPAC SMS and therefore indicate a meaningful error message to its users. It has been requested that application level errors be defined where appropriate and returned as text to the SOA. | | High | | | | | | | | | FRS, IIS, GDMO, ASN.1 | | | Func Backwards Compatible: NO  Application level errors would be defined in the IIS.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a and IIS 3.3.0a. | | | | | | | High | | | | | | | | High / High | | | | | | | | | |
| NANC 138 | | | | | **CMA**  8/11/97 | | | | Definition of Cause Code Values – REVISITED NANC 54 defined the cause code values and the FRS was to be updated. Due to an oversight this update was not made in the FRS. The change was going to be applied in FRS 1.4 and 2.2. However, a discrepancy as found. The defined values specified in NANC 54 where are as follows:  The values less than 50 were reserved for SMS NPAC internal use.  Other defined values are:  0 – NULL (DO NOT MODIFY)  1 - NPAC automatic cancellation  50 - LSR Not Received  51 - FOC Not Issued  52 - Due Date Mismatch  53 - Vacant Number Port  54 - General Conflict  In the table in the FRS the following cause code is defined: NPAC SMS Automatic Conflict from Cancellation  There is no corresponding code defined in Change Order NANC 54. Is there a numeric value or is this cause code valid?  (continued) | | Medium Low | | | | | | | | | FRS | | | Func Backwards Compatible: NO  Update to be made to the FRS.  Pending review by the vendors. Lockheed does not set a cause code when the NPAC SMS automatically puts a cancelled order into conflict. Perot is reviewing their implementation.  There is not a requirement in the FRS for a cause code of NPAC SMS Automatic Conflict from Cancellation.    Operations flows are being reviewed. In figure 6, box 3.  Perot like Lockheed, does not use the cause code in question.  A SOA vendor has been asked to evaluate the impact of not receiving a cause code value with a status of conflict.  Flows in Appendix A also need to be updated. | | | | | | | Low | | | | | | | Low / Low | | | | | | | | | |
| NANC 138  (cont.) | | | | | Requirements for the cause code addition would be as follows:  RR5-36 should be renumbered to RR5-36.2.  RR5-36.1 Cancel Subscription Version – Cause Code for New SP Timer Expiration  NANC SMS shall set the cause code to “NPAC SMS Automatic Conflict from Cancellation” after setting the Subscription Version status to conflict from cancel-pending when the new Service Provider has not acknowledged cancellation after the Cancellation-Final Concurrence Window.  2 will be the value defined for the “NPAC SMS Automatic Conflict from Cancellation” cause code. | | | | | | | | | Awaiting sizing from NPAC vendors, and validation of functionality (reference existing requirements) from cancellation to conflict.  SOA vendors heard from to date do not have a problem with the cause code not being present.  This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  Implemented in FRS 3.3.0a | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 151 | | | | | Bellcore 9/4/97 | | | **TN and Number Pool Block Addition to Notifications**  It has been requested that the TN for the subscription version be added to all notifications that currently contain SV-ID but not TN 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.  Jun 00 LNPA-WG meeting, additionally, the same type of change should be done for Number Pool Block (i.e., add the NPA-NXX-X to all notifications that currently contain Block-ID but not NPA-NXX-X). | | Low | | | | | | | | | IIS | | | Func Backwards Compatible: NO This would be a deviation from the standard since the TN would not have been an attribute that has changed. This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  Implemented in FRS 3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | | Low | | | | | Low / N/A | | | | | | | | | | | | | |
| NANC 227 | | | | | MCI  8/7/98 | | | | **10-digit TN Filters (previously know as "Ability to Modify/Delete of Partial Failure SV")**  **OLD TEXT:** The NPAC SMS currently rejects a request to "modify active" or "delete" an SV that has a partial failure status. Nothing can be done to the SV until the discrepant LSMS(s) come back on line, and either recover the broadcast, or accept a re-send from the NPAC.  **OLD TEXT:** A business scenario arose whereby a partial failure was affecting a customer's main number, and the New SP couldn't do anything to the SV until the partial failure was resolved.  **NEW TEXT:** The NPAC should provide a mechanism that allows 10-digit filters, in order to clean up partial failure SVs that need to be subsequently modified or deleted, by the New SP.  **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  This change order is related to NANC 254. | | High | | | | | | | | | FRS, GDMO | | | Func Backwards Compatible: NO  Discussed during 8/12/98 face-to-face T&O meeting (Detroit).  **OLD TEXT:** It was determined that the business scenario was primarily human error, and the NPAC should NOT be modified to allow a partial failure to go to active, but still have out-of-sync LSMS(s).  **OLD TEXT:** A workaround (available with 1.3 [with the exception of PTO]) would be to temporarily set up a filter for the discrepant LSMS(s), do a re-send which would clear up the failed-SP-List and set the SV to active, then remove the filter.  **OLD TEXT:** NEXT STEP: all SPs and vendors should evaluate if this is an acceptable solution.  **OLD TEXT:** Sep LNPAWG (Seattle), this potential M&P work-around has been forwarded to NPAC Operations (Jan Trout-Avery) for further analysis, and will be discussed at the x-regional in New Orleans.  (continued) | | | | | | | High | | | | | | Med-Low / N/A | | | | | | | | | |
| NANC 227  (con't) | | | | | Proposed Solution (continued)  **OLD TEXT:** This change order will be left open pending the discussion in New Orleans.  Oct LNPAWG (Kansas City), after discussions in New Orleans at the x-reg meeting, it was requested by Service Providers that Lockheed use the M&P for "partial failures where the customer is out of service" only.  Jan will be doing an M&P on this, and will accumulate data on the frequency of this situation. Everyone should be aware that the risk for the M&P is that any other SVs that are coming down in the NPA-NXX will NOT be sent to the LSMS. From an NPAC functional perspective, a potential problem is the complexity of having to keep "versions" of versions, when you have an activate that fails, then allow a modify on top of this.  Jim Rooks provided info on this, to state that he is uncomfortable with the modify of a partial failure. We further discussed the potential of a 10-digit filter that would override the existing 6-digit filter. This should be the same change order, but will replace the title from modify partial failure to 10-digit filter.  Nov LNPAWG (Dallas), re-capped discussion from KC. Desire of this functionality is to have NPAC Personnel perform this activity (of putting up 10-digit filters), and NOT allow SPs to send this over the interface.  This has been moved into the “Accepted” category, awaiting prioritization. The group will flush out the details once this gets placed into a specific release.  Jul LNPAWG (Ottawa), no comments on pooling additions.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order. Also note that this change order was merged with NANC 254 sometime during or prior to the R4.0 discussions and is now referred to NANC 227/254.  Implemented in FRS 3.3.0a and GDMO 3.3.0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 285 | | | | | LNPA WG  5/12/99 | | | | **SOA/LSMS Requested Subscription Version Query Max Size**  A SOA/LSMS request for a Subscription Version query that exceeds the maximum size tunable (“Maximum Subscriber Query”), returns an error message to the SOA.  Similar to the processing in NANC 273, it has been requested the NPAC return SVs up to the max tunable amount instead. The SOA/LSMS would accept this message, then use it’s contents to send another query to the NPAC, starting with the next TN, and so on until all SVs are returned to the SOA/LSMS.  It will be up to the SOA/LSMS to manage the data returned from the NPAC and determine the next request to send to the NPAC in order to get the next set of SVs.  The NPAC will continue to return SVs that meet the selection criteria. However, the NPAC will not return a “count” to the SOA/LSMS for number of records that match the selection criteria.  This solution will resolve the problem described in NANC 279 (SOA Resynchronization for Large Ranges), where a problem exists for recovering the SOA for large ranges, because the SV time stamp that the NPAC users for recovery is the same for large ranges.  The example used for NANC 279 was, if all the TNs in the range contain the same time stamp (e.g., 17 minutes and 20 seconds after 3p, 15:17:20), and the number of TNs in the range exceeds the tunable allowed for queries, the SOA cannot recover since the NPAC, for any time range, will respond with an error for maximum TN query reached. | | High | | | | | | | | | FRS, IIS, GDMO | | | Func Backwards Compatible: NO  June LNPAWG (San Ramon), discussed in conjunction with NANC 279. Group decided to close out 279, and merge the requested functionality into this change order, since this is query functionality issue, and not just a recovery issue.  Jim Rooks will provide additional information on a proposed solution given the inclusion of NANC 279 into this change order.  Jim’s response is shown below:  This change order requests the 'more' capability that will be supported by queries in the LTI. This implementation requires 2 changes.  #1, the NPAC must be modified to always return the first n (tunable) records on the SV query. Currently, the NPAC determines that the query will return more than n records and returns an error.  (continued) | | | | | | | Low | | | | | | Med-High / Med-High | | | | | | | | | |
| NANC 285 (con’t) | | | | | Proposed Solution (continued):  #2, the service providers should modify their systems to support the following SV query operations to the NPAC:   1. When data is returned from an SV Query and there are exactly n (tunable) records returned, the SP must assume that they didn't get all the data from their query. 2. After processing the first n records, they should send a new query that picks up where the data from the prior query ended. 3. The SV data returned from the NPAC for SV queries will be sorted by TN and then by SVID so a filter can be created to pick up where the prior query ended. 4. For example, if a SOA query to the NPAC returns exactly 150 records and the last SV returned was TN '303-555-0150' with SVID of 1234. The filter used on the next query would be:   All SVs where ((TN > 303-555-0150) OR (TN = 303-555-0150 AND SVID > 1234).  The NPAC does support OR filters.   1. Once the results from the NPAC returns less than 150 records, the SP can assume they received all records in the requested query.   Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  Implemented in FRs 3.3.0a, IIS 3.3.0a and GDMO 3.3.0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 299 | | | | | LNPA-WG 9/15/99 | | | NPAC Monitoring of SOA and LSMS Associations via Heartbeat  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.  Oct LNPAWG (KC), 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. | | High | | | | | | | | | FRS, IIS, GDMO, ASN.1 | | | Func Backwards Compatible: NO  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”.  (continued) | | | | | | | Med | | | | | | Med -High / Med -  High | | | | | | | | | |
| NANC 299 (con’t) | | | | | Proposed Solution (continued):  **May ‘00 LNPAWG** (Atlanta), leave open until further analysis of NANC 219 and NANC 301 (i.e., after R4 implementation).  **June ‘00 LNPAWG** meeting, group consensus (during R5 discussion) is to move to cancel-pending.  **July 2000 meeting** – LNPA WG consensus is that they do not want to cancel this change order but move it back to an accepted change order for a future release. Metrics and reports that will be provided after R4.0 will give more information to determine whether or not this change order is needed.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  Implemented in FRS 3.3.0a, IIS3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 300 | | | | | LNPA-WG 12/6/99 | | | | 7-digit Block Filters for Number Pooling  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. | | ??? | | | | | | | | | FRS, GDMO | | | Functional Backwards Compatible: NO  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  Implemented in FRS 3.3.0a and GDMO 3.3.0. | | | | | | | Med | | | | | | Med-Low | | | | | | | | | |
| NANC 321 | | | | | WorldCom 12/13/00 | | | | **Regional NPAC NPA Edit of Service Provider Network Data - NPA-NXX Data**  **Business Need:**  When a service provider submits a message to the NPAC in order to create a pending subscription version, the NPAC verifies that the old service provider identified in the message is the current service provider and that the number to be ported is from a portable NPA-NXX. If the telephone number already is a ported number, the NPAC will look at the active SV for that number to determine the identity of the current SP as shown in the active SV. If no active SV exists, then the number is not currently ported and the NPAC determines the current SP instead based on NPA-NXX ownership as shown in the NPAC's network data for each service provider. The NPAC also looks at the network data to confirm that the NPA-NXX has been identified as open to portability.  If a service provider has entered an NPA-NXX in its network data but has done it for its network data associated with the wrong region, then the correct NPAC region, when receiving create messages involving numbers in that NPA-NXX, will be unable to see that the TNs involve a portable NPA-NXX; in this case the create message will be rejected by NPAC. Furthermore, another service provider could erroneously enter the NPA-NXX in its network data for the correct NPAC region. Then the NPAC's portable NPA-NXX validation would pass, but the current service provider validation would fail. In either case the telephone number could not be ported until the service provider network data error were corrected. | | | ??? | | | | | | | | FRS | | | Functional Backwards Compatible: **Yes**  **January 2001 meeting:** Accepted pending review of the final write-up in February.  **February 2001 meeting:** Accepted  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order. | | | | | | | ??? | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 321 (cont’d) | | | | It is important therefore to assure that service provider NPA-NXX network data be populated only in the proper NPAC region and to allow only the LERG-assignee to populate the data. The introduction of an NPA edit function, to validate that an NPA-NXX input is to network data associated with the NPAC region encompassing the involved NPA will effectively serve both functions. Such an edit function would not allow a service provider to put its NPA-NXX data in the wrong NPAC region's database and it consequently would not allow the improper LERG-assignee entries to remain long undetected.  **Description of Change:**  Network Data is submitted by service providers over their SOA/LSMS interfaces or via the NPAC Administrative OpGUI or the SOA LTI. A provider is required to enter each portable NPA-NXX for which it is the LERG assignee. The NPAC uses this service provider network data to perform certain validation functions of subscription version data -- to confirm current SPID correct and that TN is from portable NXX -- and to determine TN ownership in snap-back situations.  Detailed requirements are as follows:  1. The NPAC will reject an NPA-NXX network data entry attempt if the NPA involved is not encompassed by the NPAC region to which the data is being submitted.  2. A table of valid NPAs will be established for each regional NPAC.  3. Each table of valid NPAs open in the NPAC service area will be maintained by NPAC personnel for each regional NPAC.  4. The NPAC will obtain information on new NPAs from the LERG.  5. The change order would be implemented on a regional basis.  Implemented FRS 3.3.0a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 | | | | | LNPA WG 11/14/01 | | | | **Doc Only Change Order for IIS:** Exhibit 12 of IIS section 4.2.2 does not reflect all filtering operations currently supported by the NPAC SMS.  “From Section 4.2.2:  The following table shows the CMISE primitive filtering support required of the Local SMS by the NPAC SMS for the subscriptionVersion object.  (continued) | | | Medium | | | | | | | | IIS | | | Incorporate into next release of IIS.  **12/12/01** – Reviewed during December LNPA WG meeting. Needs more revisions. Will be reviewed again during January 2002 meeting.  **01/09/02** – Reviewed revisions. More revisions required. The new revisions are highlighted in yellow. Will review again during the February 2002 meeting.  **Nov ‘02 LNPAWG** – Reviewed at meeting, move to accepted. Additional text has been added to make consistent with the numberPoolBlockNPAC MANAGED OBJECT CLASS in the GDMO, related to LNP Type.  (continued) | | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 343 (cont’d) | | | | Exhibit - CMISE Primitive Filtering Support for the Subscription Version Object   | **CMISE Primitives** | **Filter Supported** | **Notes** | | --- | --- | --- | | M-ACTION | N | No filtering is applied to the actions for the subscriptionVersion object. | | M-GET | Y | TN Range with greaterOrEqual, lessOrEqual, equality must be supported for auditing. | | M-SET | Y | TN Range with greaterOrEqual, lessOrEqual, equality must be supported for Mass Update or TN range modify requests. | | M-DELETE | Y | TN Range with greaterOrEqual, lessOrEqual, equality will be supported for range disconnect or port to original requests. |   “  Modify text and table as follows to clarify exact functionality for TNs and for Number Pooling functionality:  From Section 4.2.2:  The following table shows the CMISE primitive filtering support required of the Local SMS by the NPAC SMS ~~for the subscriptionVersion object~~.  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | | Exhibit 1 - CMISE Primitive Filtering Support for Local System Objects   | **CMISE Primitives** | **Filter Supported** | **Notes** | | --- | --- | --- | | M-ACTION | N | No filtering is applied to the actions. | | M-GET | Y | TN *Query* ~~Range~~ with greaterOrEqual ***and*** lessOrEqual, ***and*** equality must be supported for auditing.  *The fields used with greaterOrEqual and lessOrEqual filters are subscriptionTN and subscriptionActivationTimeStamp.*  *The field used with equality is subscriptionTN.*  *Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for subscriptionTN only or a more complex filter.*  *The more complex filter uses two criteria for filtering. The first criteria used is greaterOrEqual and lessOrEqual filters with subscriptionTN. The second criteria uses greaterOrEqual and lessOrEqual filters for subscriptionActivationTimeStamp. Both criteria must be matched for the data being queried (logical and).*  *The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.* | | Number Pool Block Query with greaterOrEqual and lessOrEqual, and equality for EDR support.  *The fields used with greaterOrEqual and lessOrEqual filters are numberPoolBlockNPA-NXX-X and numberPoolBlockActivationTimeStamp.*  *The field used with equality is numberPoolBlockNPA-NXX-X.*  *Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for numberPoolBlockNPA-NXX-X only or a more complex filter.*  *The more complex filter uses two criteria for filtering. The first criteria used is equality filter with numberPoolBlockNPA-NXX-X. The second criteria uses greaterOrEqual and lessOrEqual filters for numberPoolBlockActivationTimeStamp. Both criteria must be matched for the data being queried (logical and).*  *The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.* |   (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | | |  |  |  | | --- | --- | --- | | M-SET | Y | TN ~~Range~~ *Modify* with greaterOrEqual and lessOrEqual, *and* equality must be supported for Mass Update or TN modify requests.  *The field used with greaterOrEqual and lessOrEqual filters is subscriptionTN.*  *The fields used with equality are subscriptionTN and subscriptionNewCurrentSP.*  *Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for subscriptionTN only, or a more complex filter.*  *In the case of Modification of TNs for non-EDR number pool block the filter is more complex and uses two criteria for modification. The first criteria uses the subscriptionNewCurrentSP field with equality. The second criteria uses lessOrEqual and greaterOrEqual for subscriptionTN. Both criteria must be matched for the data being set (logical and). Additionally, a filter for LNP Type equal to ‘pool’ may be used.*  *The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.* | | *Number Pool Block Modify with greaterOrEqual and lessOrEqual, and equality for EDR support.*  *The field used with greaterOrEqual and lessOrEqual is numberPoolBlockNPA-NXX-X.*  *The field used with equality is numberPoolBlockNPA-NXX-X.*  *The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.* |   **NOTE:** Exhibit 13 will be removed from the IIS.  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | | |  |  |  | | --- | --- | --- | | M-DELETE | Y | TN ~~Range~~ ***Delete*** with greaterOrEqual ***and*** lessOrEqual, *and equality* will be supported. ~~for range disconnect or port to original requests.~~  The field used with greaterOrEqual and lessOrEqual filters is subscriptionTN.  The field used with equality is subscriptionTN.  *The scope for the filter is level 1 only with a base managed object class of lnpSubscriptions.*  *In the case of Deletion of TNs for non-EDR number pool block the filter is more complex and uses two criteria for deletion. The first criteria uses the subscriptionNewCurrentSP field with equality. The second criteria uses lessOrEqual and greaterOrEqual for subscriptionTN. Both criteria must be matched for the data being set (logical and). Additionally, a filter for LNP Type equal to ‘pool’ may be used.* |   **NOTE:** Exhibit 13 will be removed from the IIS.  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d | | | | **GDMO Documentation**  **DOCUMENTATION changes should be made in the GDMO behavior for the following objects to accurately reflect scooping and filtering support required for the NPAC SMS to the LSMS:**   * **lnpSubscriptions** * **subscriptionVersion** * **numberPoolBlock**   **Further GDMO modifications will be necessary to reflect SOA and LSMS scoping and filtering support when sending requests to the NPAC SMS for the following objects:**   * **subscriptionVersionNPAC** * **numberPoolBlockNPAC**   **Additional GDMO text will be added to reflect SOA and LSMS scoping and filtering support when sending requests to the NPAC SMS for other objects.** lnpSubscriptions: **The lnpSubscriptionsDefinition BEHAVIOUR should be modified as follows:**  lnpSubscriptionsDefinition BEHAVIOUR  DEFINED AS !  Local SMS and NPAC SMS Managed Object for the SOA to NPAC SMS and the Local SMS to NPAC SMS interface.  The lnpSubscriptions class is the managed object that is used as the container object for the subscription version objects and numberPoolBlock objects on the NPAC SMS and the Local SMS.  Local SMS interfaces must be able to support scoped~~/filtered~~ **and filtered requests with a level 1 scope and a base managed object class of lnpSubscription.**~~M-SETs and M-DELETEs with a TN range as the primary filter.~~ **Specific filter criteria support is defined in the behavior for the subscriptionVersion and numberPoolBlock managed objects.**  !;  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | | subscriptionVersion: **The subscriptionVersionBehaviour BEHAVIOUR should be modified as follows:**  subscriptionVersionBehavior BEHAVIOUR  DEFINED AS !  **.**  **.**  **.**  The Local SMS can not modify any of the subscription version data locally unless changes were downloaded via a download request.  The Local SMS must be able to support **scoped and filtered requests with a level 1 scope and a base managed object class of lnpSubscription for subscription version ~~(~~**M-GET, M-SET, **and** M-DELETE~~)~~ **requests.** ~~with a filter for equality and ordering on the subscriptionTN from the NPAC SMS.~~  **Filtering Support for M-GET:**  **TN Query with greaterOrEqual and lessOrEqual, and equality must be supported for auditing.**  **The fields used with greaterOrEqual and lessOrEqual filters are subscriptionTN and subscriptionActivationTimeStamp.**  **The field used with equality is subscriptionTN.**  **Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for subscriptionTN only or a more complex filter.**  **The more complex filter uses two criteria for filtering. The first criteria used is greaterOrEqual and lessOrEqual filters with subscriptionTN. The second criteria uses greaterOrEqual and lessOrEqual filters for subscriptionActivationTimeStamp. Both criteria must be matched for the data being queried (logical and).**  **Filtering Support for M-SET:**  **TN Modify with greaterOrEqual and lessOrEqual, and equality must be supported for Mass Update or TN modify requests.**  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | | **The field used with greaterOrEqual and lessOrEqual filters is subscriptionTN.**  **The fields used with equality are subscriptionTN and subscriptionNewCurrentSP.**  **Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for subscriptionTN only, or a more complex filter.**  **In the case of Modification of TNs for non-EDR number pool block the filter is more complex and uses two criteria for modification. The first criteria uses the subscriptionNewCurrentSP field with equality. The second criteria uses greaterOrEqual and lessOrEqual for subscriptionTN. Both criteria must be matched for the data being set (logical and). Additionally, a filter for LNP Type equal to ‘pool’ may be used.**  **The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.**  **Filtering Support for M-DELETE:**  **TN Delete with greaterOrEqual and lessOrEqual, and equality will be supported.**  **The field used with greaterOrEqual and lessOrEqual filters is subscriptionTN.**  **The field used with equality is subscriptionTN.**  **The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.**  **In the case of Deletion of TNs for non-EDR number pool block the filter is more complex and uses two criteria for deletion. The first criteria uses the subscriptionNewCurrentSP field with equality. The second criteria uses lessOrEqual and greaterOrEqual for subscriptionTN. Both criteria must be matched for the data being set (logical and). Additionally, a filter for LNP Type equal to ‘pool’ may be used.**  !;  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | numberPoolBlock: **The numberPoolBlock-Behaviour BEHAVIOUR should be modified as follows:**  numberPoolBlock-Behavior BEHAVIOUR  DEFINED AS !  **.**  **.**  **.**  The Local SMS can not modify any of the number pool block data locally unless changes were downloaded via a download request.  The Local SMS must support **scoped and filtered requests with a level 1 scope and a base managed object class of lnpSubscriptions for numberPoolBlock M-GET and M-SET requests.** ~~equality and ordering on the numberPoolBlockNPA-NXX-X attribute in a scoped and filtered request for mass updates and audits.~~  **Filtering Support for M-GET:**  **Number Pool Block Query with greaterOrEqual and lessOrEqual, and equality for EDR support.**  **The fields used with greaterOrEqual and lessOrEqual filters are numberPoolBlockNPA-NXX-X and numberPoolBlockActivationTimeStamp.**  **The field used with equality is numberPoolBlockNPA-NXX-X.**  **Filters supported contain either a greaterOrEqual and lessOrEqual filter, or equality filter, for numberPoolBlockNPA-NXX-X only or a more complex filter.**  **The more complex filter uses two criteria for filtering. The first criteria used is equality filter with numberPoolBlockNPA-NXX-X. The second criteria uses greaterOrEqual and lessOrEqual filters for numberPoolBlockActivationTimeStamp. Both criteria must be matched for the data being queried (logical and).**  **The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.**  (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 343 (cont’d) | | | **Filtering Support for M-SET:**  **Number Pool Block Modify with greaterOrEqual and lessOrEqual, and equality for EDR support.**  **The field used with greaterOrEqual and lessOrEqual filters is numberPoolBlockNPA-NXX-X.**  **The field used with equality is numberPoolBlockNPA-NXX-X.**  **The scope for the filters is level 1 only with a base managed object class of lnpSubscriptions.**  !;  Implemented in IIS 3.3.0a, and GDMO 3.3.0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 346 | | | NeuStar 1/21/02 | | | | | | **GDMO Change to Number Pool Block Data Managed Object Class (Section 29.0) and Documentation Change to Subscription Version Managed Object Class (Section 20.0)**  Change the numberPoolBlock-Pkg to support updates to the numberPoolBlockActivationTimeStamp attribute. Currently this attribute is not modifiable so when it is audited by the NPAC SMS and found to be discrepant there is no way to update it. The NPAC SMS attempts to correct the attribute on the LSMS and the M-SET is failed by the service provider’s system because the attribute is GET only.  **Currently the numberPoolBlock-Pkg reads:**  numberPoolBlock-Pkg PACKAGE  BEHAVIOUR  numberPoolBlock-Definition,  numberPoolBlock-Behavior;  ATTRIBUTES  numberPoolBlockId GET,  numberPoolBlockNPA-NXX-X GET,  numberPoolBlockHolderSPID GET,  numberPoolBlockActivationTimeStamp GET,  numberPoolBlockLRN GET-REPLACE,  numberPoolBlockCLASS-DPC GET-REPLACE,  numberPoolBlockCLASS-SSN GET-REPLACE,  numberPoolBlockLIDB-DPC GET-REPLACE,  numberPoolBlockLIDB-SSN GET-REPLACE,  numberPoolBlockCNAM-DPC GET-REPLACE,  numberPoolBlockCNAM-SSN GET-REPLACE,  numberPoolBlockISVM-DPC GET-REPLACE,  numberPoolBlockISVM-SSN GET-REPLACE,  numberPoolBlockDownloadReason GET-REPLACE;  ; | | | High | | | | | | | | GDMO | | | **Modify the numberPoolBlock-Pkg to read:**  numberPoolBlock-Pkg PACKAGE  BEHAVIOUR  numberPoolBlock-Definition,  numberPoolBlock-Behavior;  ATTRIBUTES  numberPoolBlockId GET,  numberPoolBlockNPA-NXX-X GET,  numberPoolBlockHolderSPID GET,  numberPoolBlockActivationTimeStamp GET-***REPLACE***,  numberPoolBlockLRN GET-REPLACE,  numberPoolBlockCLASS-DPC GET-REPLACE,  numberPoolBlockCLASS-SSN GET-REPLACE,  numberPoolBlockLIDB-DPC GET-REPLACE,  numberPoolBlockLIDB-SSN GET-REPLACE,  numberPoolBlockCNAM-DPC GET-REPLACE,  numberPoolBlockCNAM-SSN GET-REPLACE,  numberPoolBlockISVM-DPC GET-REPLACE,  numberPoolBlockISVM-SSN GET-REPLACE,  numberPoolBlockDownloadReason GET-REPLACE;  ;  (continued) | | | | | | | N/A | | | | | | | | Low / Low | | | | | | | | | |
| NANC 346 (cont’d) | | | Proposed Solution (continued):  **Number Pool Block, object 29.0** -- Update the GDMO behavior text (add to the end).  The Local SMS can only modify the numberPoolBlockActivationTimeStamp locally upon receiving a modify request from the NPAC SMS.  **Subscription Version, object 20.0** -- Update the GDMO behavior text (add to the end).  The Local SMS can only modify the subscriptionVersionActivationTimeStamp locally upon receiving a modify request from the NPAC SMS.  **Nov ‘02 LNPAWG** – Reviewed at meeting, move to accepted.  Implemented in GDMO 3.3.0. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 347/350 | | | NeuStar 3/6/02 | | | | | | **CMIP Interface Enhancements – abort behavior**  **Business Need:**  Note: During the Nov ‘02 LNPAWG meeting, it was decided by the industry to consolidate NANC 347 and 350 into a single change order that would capture abort behavior. All parties will also consider how these changes relate to the elimination of aborts (all or just time-related) and outbound flow control. The expectation is that Service Providers would implement similar abort processes/procedures on their systems, such that “*sender”* and “*receiver*” can be used to indicate either NPAC or SOA/LSMS for abort behavior.  15 minute abort behavior.  The NPAC SMS and Service Provider SOA/LSMS exchange messages and a response is required for each message. The current NPAC architecture requires a response to every message within a 15 minute window, or the requestor will abort the association.  If a Service Provider fails to respond to an NPAC message, the NPAC aborts that specific association and the Service Provider must re-associate in recovery mode, request, receive and process all missed messages, then start processing in normal mode until they are totally caught up with any backlog of messages. During the recovery timeframe, the NPAC must “hold” all messages destined for that Service Provider, and only send them once the Service Provider has completed the recovery process. This only further delays the desired processing of messages by both the NPAC and the Service Provider. Additionally, any SV operations except range activate will remain in a sending status until the Service Provider has competed recovery.  (continued) | | | TBD | | | | | | | | FRS, IIS | | | Interface and Functional Backwards Compatible: YES  15 minute abort behavior.  Change the 15-minute abort timer (tunable by region, defaulted to 15 minutes) to “credit” the Service Provider for responding to some traffic, even if they don’t respond to a specific message within the 15 minute window.   1. This would allow Service Providers that have fallen behind to keep processing the backlog, instead of getting aborted and having to re-associate to the NPAC in recovery mode, which in turn increases workload for both the NPAC and the Service Provider. 2. If the Service Provider fails to respond to ANY of the outstanding message during that 15 minute window, the NPAC would abort the association as is currently done (i.e., at the end of the 15 minute window). 3. If the SP is responding to messages at a slower pace, the NPAC using new timers, would “roll-up” the downloaded data (e.g., SV activate to LSMS with a slow SP) at the end of 15 minutes, to obtain closure on this porting activity. In this example, the SV would be in partial-failure status, and a notification would be sent to both the activating SOA and old SOA. The new timer allows the NPAC to separate association abort/monitoring and event completion.   (continued) | | | | | | | TBD | | | | | | | | TBD / TBD | | | | | | | | | |
| NANC 347/350 (cont) | | | With the current NPAC implementation based on the requirements, especially during periods of high demand with large porting activity, a Service Provider that falls more than 15 minutes behind will get aborted by the NPAC, thus exacerbating the problem of timely processing of messages. This occurs even though that Service Provider is still processing messages from the NPAC, albeit more than 15 minutes later.  With this change order, the audit behavior in the 15 minute window of the NPAC would not adversely impact a Service Provider that falls behind, but is still processing messages.  The business need for efficient transmission of messages will only increase as porting volumes increase.  60 minute abort behavior.  With the changes described above, the audit behavior in the 60 minute window of the NPAC would allow a Service Provider to fall behind, but put a cap on how far behind (i.e., 60 minutes). This enhancement could assist a Service Provider in the area of timeliness of updating network data due to a lessening of aborts, customer service, and fewer audits for troubleshooting purposes. | | | | | | | | | | | | | | | | | This change applies to a single SV broadcast. The flow for SV ranges is a response to the range event (M-EVENT-REPORT response) within 60 minutes (same as today).  60 minute abort behavior.  Create a new “60” minute window (tunable by region, defaulted to 60 minutes). Use this new window the same way that the 15 minute window is used in Release 3.1 (i.e., abort the association for a lack of a response to an individual message from the NPAC).   1. This would allow Service Providers that have fallen behind to keep processing the backlog, instead of getting aborted and having to re-associate to the NPAC in recovery mode, but would put a limit on the amount of time allotted for slower Service Providers. 2. If the Service Provider fails to respond to a given outstanding message during that new 60 minute window, the NPAC would abort the association. So with this change the Service Provider gets an additional 45 minutes to respond beyond the current 15 minute window.   (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 347/350 (cont) | | |  | | | | | | | | | | | | | | | | | The logic representation is shown below: IF the slow Service Provider responds to this message within 60 minutes:  NPAC updates the appropriate data  NPAC sends appropriate notification to the SOAs  *(in an example of a partial failure activate request, the SV would go from  PF to active status and the Service Provider would be removed from  the failed list)* ELSE,  NPAC aborts the association  the Service Provider must re-associate to the NPAC  the Service Provider goes through recovery processing.  This change applies to both single and range SV broadcasts. The SP will have 60 minutes to respond to the LSMS download message from NPAC, and in the case of an ACTION, the response to the event (M-EVENT-REPORT response) as well, or rollup at the NPAC will occur. This new timer will separate the activities, but they will both be defaulted to 60 minutes. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 347/350 (cont) | | | **Oct ’02 LNPAWG**, discussed Major points/processing flow/high-level requirements.  **Nov ’02 LNPAWG**, upon approval of the merged version of 347/350, this will be move to the accepted category.  **Jan ’03 LNPAWG**, approved, move to accepted category.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a and IIS 3.3.0a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 348 | | | NeuStar 3/6/02 | | | | | | **Bulk Data Download File for Notifications**  **Business Need:**  Service Providers use Bulk Data Download (BDD) files to recover customer, network, block, and subscription data in file format. This occurs when automated recovery functionality is either not available or not practical (e.g., too large of time range) for the data that needs to be recovered.  The current requirements do not address BDD files for notifications. In order to provide more complete functionality for a Service Provider to “replay” messages sent by the NPAC, the ability for the NPAC to generate a BDD file for a time range of notifications would potentially reduce operational issues and the work effort required for a Service Provider to get back in sync with the NPAC, by providing the Service Provider with all information that they would have received had they been associated with the NPAC. Additionally, this would be needed for LTI users transitioning to a SOA, or SOA users that need to recover notifications for more than the industry-recommended timeframe of 24 hours.  With this change order, the NPAC would have the capability to generate a BDD file of notifications for a Service Provider within a certain date and time range. | | | TBD | | | | | | | | FRS | | | | | | | Interface and Functional Backwards Compatible: YES  The NPAC would provide the functionality for NPAC Help Desk personnel to generate a BDD file of notifications for a requesting Service Provider.  Selection criteria would be any single SPID, date and time range (notification attempt timestamp), and include all types of notifications. The sort criteria will be chronologically by date and time.  The file name will contain an indication that this is a notification file, along with the requested date and time range. The output file would be placed in that Service Provider’s ftp site directory.  **Oct ’02 LNPAWG** – discussed Major points/processing flow/high-level requirements.  **Nov ‘02 LNPAWG** – Reviewed at meeting, move to accepted. Start working on detailed requirements.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a. | | | | | | TBD | | | | | | TBD / TBD | | | | | | | | | | |
| NANC 351 | | | NeuStar 4/12/02 | | | | | | **Recovery Enhancements – “Send What I Missed” recovery message**  **Business Need:**  The NPAC SMS and Service Provider SOA/LSMS exchange messages and a response is required for each message. The current NPAC architecture requires a response to every message within a 15-minute window, or the requestor will abort the association.  If a Service Provider fails to respond to an NPAC message, the NPAC aborts that specific association and the Service Provider must re-associate in recovery mode, request a “best guess” time range of missed messages from the NPAC, receive and process all missed messages, then start processing in normal mode until they are totally caught up with the backlog of messages.  One problem of the current “best guess” approach is the trial-and-error recovery processing that a Service Provider must perform in certain circumstances (e.g., when there is too much data to send in a response to a single request). This can create unnecessary workload on both the NPAC and the Service Provider.  A better method is to implement the *“Send What I Missed”* approach (SWIM). Service Providers can optionally use this new message to perform the recovery function. This improves the efficiency of recovery processing for the NPAC and Service Providers because guesswork is eliminated. | | | TBD | | | | | | | | FRS, IIS, GDMO, ASN.1 | | | | | | | Interface and Functional Backwards Compatible: YES  Create a new process that incorporates the ability for a Service Provider to request that the NPAC send *missed* messages. In order to accomplish this, the NPAC will need to keep track of messages that were both “*not sent*” and “*not responded to*” from the NPAC to the SOA/LSMS.  The behavior of the *“Send What I Missed”* message (SWIM) which will be initiated by a SOA/LSMS, is the same as the current recovery process (i.e., request from the SP, response from the NPAC includes the recoverable data). The implementation would use the existing recovery message, and incorporate a new attribute (SWIM, to go along with time range and TN range). When this is received, the NPAC would send back a SWIM Response which contains the *missed* messages. With the new SWIM attribute, the NPAC would use the same Blocking Factor tunables as used in 187-Linked Replies in order to send data to the SOA/LSMS in “chunks”.  Implemented in FRS 3.3.0a, IIS 3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | TBD | | | | | | TBD / TBD | | | | | | | | | | |
| NANC 352 | | NeuStar 4/12/02 | | | | | | | **Recovery Enhancements – recovery of SPID (customer data)**  **Business Need:**  The NPAC SMS allows for the recovery of missed messages for network data, block data, and SV data. However, the NPAC functionality based on current requirements does not allow recovery of customer information (SPIDs). So, if customer information is downloaded, and the Service Provider misses it, it is not recoverable.  This new functionality would improve the recovery process by adding customer (i.e., header data) to the list of recoverable messages, so that subordinate network/block/SV data does not cause rejects or errors. | | | TBD | | | | | | | | FRS, IIS, GDMO, ASN.1 | | | | | | | Interface and Functional Backwards Compatible: YES  Implement a new optional recovery request that allows the Service Provider to recover customer information (SPIDs). This new optional feature would send missed customer adds, modifies, or deletes to the Service Provider during the recovery process.  A Service Provider could implement this optional feature at any time, and would send this request during the recovery process similar to the requests sent for network, block, and SV data today.  The data representation would be something like, SPID, text, and download reason.  **Nov ‘02 LNPAWG** – Reviewed at meeting, move to accepted. Start working on detailed requirements.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a, IIS 3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | TBD | | | | | | TBD / TBD | | | | | | | | | | |
| NANC 357 | | | | | | Bellsouth 4/12/02 | | | **Unique Identifiers for wireline versus wireless carriers (long term solution)**  **Business Need:**  In the LSR process, there is a need to identify a Service Provider’s port request as that from or to a Wireline or Wireless Service Provider in order to process the port request correctly within internal systems. This information must match up with NPAC information on each Service Provider’s Type. Without this information, port requests may be handled incorrectly thus effecting customer phone service including related E911 records. This is especially crucial in fully mechanized LSR processing systems.  This long-term solution replaces the interim solution provided by the associated NANC Change Order, 356. | | |  | | | | | | | | FRS, IIS, GDMO | | | Func Backwards Compatible: NO  The NPAC SMS shall provide a *Service Provider Type* indicator for each Service Provider. This new indicator shall initially distinguish each Service Provider as either a Wireline Service Provider or a Wireless Service Provider. The *Service Provider Type* indicator shall be able to distinguish additional “types” as deemed necessary in the future (e.g., it may be advantageous in the future to identify other Service Provider Types such as Reseller or Service Bureau).  This information shall be sent to the SOA/LSMS upon initial creation of the Service Provider, upon modification of a Service Provider’s Type and when the SP is removed (deleted) from the NPAC.  The *Service Provider Type* indicator shall be added to the Bulk Data Download file, available to a Service Provider’s SOA/LSMS.  The *Service Provider Type* indicator shall be Recoverable across the SOA/LSMS with the implementation of NANC 352.  **Jan ’03 LNPAWG**, approved, move to accepted category.  Implemented in FRS 3.3.0a, GMDO 3.3.0 and ASN.1 3.3.0. | | | | | | | Med-Low | | | | | | | TBD / TBD | | | | | | | | | |
| NANC 358 | | | | | | NeuStar 4/12/02 | | | **Change for ASN.1:** Change SPID definition  **Business Need:**  The current ASN.1 definition allows the SPID to be variable 1-4 alphanumeric characters. The current behavior in the NPAC requires SPID to be four alphanumeric characters, as defined in the current data model in the FRS – a “New Service Provider ID, Character (4), Old Service Provider ID, Character (4)”, and the GDMO “Valid values are the Facilities Id (or OCN) of the service provider.”  The OCN in the GDMO is the same OCN as defined by OBF (<http://www.atis.org/pub/clc/niif/nrri/issue177/>MACompany%20Code.doc):  **“Company Code/Operating Company Number (OCN)** - A unique four-character alphanumeric code assigned by NECA that identifies a telecommunications service provider, as outlined in the ANSI T1.251 standard, Identification of Telecommunications Service Provider Codes for the North American Telecommunications System. The code set is used in mechanized systems and documents throughout the industry to facilitate the exchange of information. Company Codes assigned by NECA are referred to as OCNs in Telcordia’s BIRRDs system. NANPA requires a carrier’s Company Code in order to obtain numbering resources. The FCC requires a carrier’s Company Code on FCC Form 502, the North American Numbering Plan Numbering Resource Utilization/Forecast Report.”  This change order will correct the ASN.1 definition to match the current implementation. | | |  | | | | | | | | ASN.1 | | | Func Backwards Compatible: YES  Current ASN.1 definition:  ServiceProvId ::= GraphicString4  GraphicString4 ::= GraphicStringBase(SIZE(1..4))  New ASN.1 definition (new is **bold**):  ServiceProvId ::= Graphic**Fixed**String4  Graphic**Fixed**String4 ::= GraphicStringBase(SIZE(**4**))  **Jan ’03 LNPAWG**, approved, move to accepted category.  Implemented in ASN.1 3.3.0. | | | | | | | Low | | | | | | | TBD / TBD | | | | | | | | | |
| NANC 359 | | | | | | NeuStar 4/12/02 | | | **Doc Only Change Order for SPID and Billing ID:** Change definition for SPID and Billing ID  The current documentation does NOT explicitly state that SPID must be 4 alphanumeric characters, and Billing ID can be variable 1-4 alphanumeric characters. The Billing ID is sometimes associated with a SPID value, so different interpretations said that it must be 4 alphacharacters, whereas others said it could be variable 1-4 as currently defined in the ASN.1. | | |  | | | | | | | | ASN.1 | | | Func Backwards Compatible: YES  Change the current documentation to explicitly state SPID must be 4 alphanumeric characters, and Billing ID can be variable 1-4 alphanumeric characters.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.3.0a and ASN.1 3.3.0. | | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 360 | | | | | | NeuStar 4/12/02 | | | **Doc Only Change Order for Recovery:** Maximum TN Recovery Tunable  A recent business situation has created an implementation of a new Service Provider-specific tunable. This doc-only change order will add this definition to the appropriate documentation. | | | |  | | | | | | | | FRS, IIS, GDMO | | | | Func Backwards Compatible: YES  Change the current documentation to explicitly state that the Service Provider-specific tunable (Maximum\_TN\_Recovery) is a tunable with a range of 1-10000, a default value of 2000, and is applicable for time-based recovery.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a and GDMO 3.3.0. | | | N/A | | | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 361 | | | | | | World Com 5/13/02 | | | **Doc Only Change Order for GDMO:** Range Version of Object Creation Notification  The definition and behavior of the range notification associated with NANC 179 (SOA range notifications) in NPAC Release 3.1 should be modified. According to the current specification, the range version of the object creation notification can support multiple sets of attributes. However, the intent of NANC 179 was to only support one set of attributes for all TN/SVIDs in the range.  This change order requests that the definition for this notification be changed to only support one set of attributes per TN/SVIDs instead of potentially multiple sets of attributes.  Below is an excerpt of the ASN.1 definition for the RangeObjectCreation is:  RangeObjectCreationInfo ::= SEQUENCE {  tn-version-id RangeNotifyTN-ID-Info,  object-info SET OF ObjectInfo  } | | | |  | | | | | | | | IIS, GDMO | | | | Func Backwards Compatible: YES  Change the current documentation to explicitly state that the current NPAC implementation supports only one (1) element in the object-info.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in GDMO 3.3.0. | | | N/A | | | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 364 | | | | | | NeuStar 7/15/02 | | | **Doc Only Change Order for ASN.1:** Create Action comment  A comment should be removed. According to the current specification, the TN Range attribute is related to Release 1.4 pooling. However, optional attribute is valid for other downloads to the LSMS. This change order requests that the comment be removed to avoid confusion.  Below is an excerpt of the ASN.1 definition for the CreateAction:  LocalSMS-CreateAction ::= SEQUENCE {  actionId INTEGER,  subscriptionVersionObjects SET OF SubscriptionVersionObject,  tn-range TN-Range OPTIONAL -- used only on pooled ports for release 1.4  } | | |  | | | | | IIS, ASN.1 | | | | | | Pure Backwards Compatible: YES  Change the current documentation by removing the “used only on pooled ports for release 1.4”.  **Jan ’03 LNPAWG**, approved, move to next documentation category.  Implemented in ASN.1 3.3.0. | | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | | | | | | |
| NANC 365 | | | | | | TSE 8/30/02 | | | **Doc Only Change Order for IIS/GDMO:** PTO and SV Query discrepancies between the two documents  1. PTO Processing Discrepencies  The GDMO states for subscriptionVersionNewSP-CreateBehavior that the new service provider must specify valid values for the LRN and GTT data. In addition it states, "If the value of subscriptionPortingToOriginal-SPSwitch is TRUE, the LRN and GTT data should be specified as NULL." However, data flows B.5.1.2 and B.5.1.3 both state that LRN and GTT data must be provided UNLESS subscriptionPortingToOriginal-SP is true. So, in the one case the requirement is to provide NULL values for LRN and GTT data and in the other case the requirement is to not provide LRN and GTT data. The GDMO and the data flows need to be made consistent.  2. SV Query Discrepencies  The GDMO states for subscriptionVersionNPAC-Behavior that subscriptionTimerType and subscriptionBusinessType are only returned on SOA queries to service providers that support these attributes. However, data flow B.5.6 shows that subscriptionTimerType and subscriptionBusinessType are returned unconditionally. The GDMO and the data flow need to be made consistent. | | |  | | | | | IIS, GDMO | | | | | | Pure Backwards Compatible: YES  Change the current documentation to be consistent and reflect the current behavior.  **Jan ’03 LNPAWG**, approved, move to accepted category. Need to verify if it should be NULL or not specified. Update the documentation to reflect this.  Upon further analysis, it was determined that the correct reference should be the following:  - PTO - “not specified”  - SV Query – “returned only if the SOA supports these attributes”  Item #1 required a change to the GDMO. This was implemented in GDMO 3.3.0.  Item #2 required a change to IIS flow 5.6. This was implemented in IIS 3.2.1a. | | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | | | | | | |
| NANC 368 | | NeuStar 10/18/02 | | | | | | | **Outbound Flow Control**  **Business Need:**  During the Oct ’02 LNPAWG meeting, a discussion took place surrounding outbound flow control, and the merits of changing the flow control of messages from the receiving end to the sending end. The current implementation of flow control between the NPAC and SOA/LSMS systems is completely determined by the receiving end of the CMIP connection. This approach works, but it allows the large buffers between the sender and the receiver to act as a queue when the receiver can’t keep up with the sender. These buffers allow for, in some cases, hundreds of messages to be backed up between the sender and the receiver before the sender gets a congestion indication. In some cases, the queue that builds up cannot be processed in 5 minutes, thereby causing departure times to expire and the association to be aborted.  Another negative impact of the current flow control approach is the lack of ability to correctly prioritize outbound messages. In the LNP systems, the sender, not the OSI stack, manage the priority that is assigned to a message. Once a large backlog of low priority messages is built up, any subsequent high priority message must wait for all those messages ahead of it in the queue. If the sender carefully manages the outbound queue, then high priority messages won’t have to wait as long to be sent by the receiving system.  Refer to the Oct ’02 LNPAWG meeting minutes for a full recap of the discussion items regarding this topic. | | |  | | | | FRS, IIS | | | | | | | Pure Backwards Compatible: YES  By implementing Outbound Flow Control (OBFC) on the sender system, the various buffers in the OSI stack would not fill up as done currently. It would be the sender’s responsibility to detect that (n) number of messages have been sent without receiving a response. In this case, the sender should stop sending until the number of non-responsive messages drops below a threshold (t). If implemented on both ends (NPAC and SP), outbound flow control would prevent congestion because neither side would fill the buffers between the 2 systems.  **Oct ’02 LNPAWG**, OBFC could be implemented at the NPAC without impacting SP systems. SPs are not required to implement this concurrently with NPAC.  **Nov ‘02 LNPAWG**, OBFC would be set up for every connection to the NPAC. Message processing speed and message prioritization for each SP is independent of other SPs (just like today, where one slow SP doesn't mean others are directly affected), regardless of each SP's setting. Move to accepted. Start working on detailed requirements.  (continued) | | | | | | | TBD | | | | | | | TBD / TBD | | | | | | | | | | | | | | |
| NANC 368 (cont) | | **Feb ’03 APT**, need to consider how the implementation of OBFC would affect SLRs 2, 3, 4, and 5.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a and IIS 3.3.0a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 371 | | | | | | AT&T 11/6/02 | | | **Doc Only Change Order for Audits:** Update Behavior  The current documentation does NOT explicitly state that the NPAC requires audit names to be unique. | | |  | | | | | | FRS, IIS, GDMO | | | | | | Pure Backwards Compatible: YES  Update the documentation to reflect the behavior of audit name within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS flows in IIS 3.2.1a. Implemented in GDMO 3.3.0. | | | | | | | N/A | | | | | | N/A / N/A | | | | | | | | | |
| NANC 373 | | | | | | NeuStar 11/19/02 | | | **Doc Only Change Order:** Conflict AVC  The current documentation does NOT list the AttributeValueChange notification when the NPAC automatically sets an SV from cancel-pending to conflict, upon exipiration of the appropriate timer. | | |  | | | | | | FRS, IIS, GDMO | | | | | | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this notification within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a. Implemented in GDMO 3.3.0. | | | | | | | N/A | | | | | | N/A / N/A | | | | | | | | | |
| NANC 374 | | | | | | NeuStar 11/20/02 | | | **Doc Only Change Order:** PTO SP  The current documentation does NOT indicate that for a PTO subscription version, the new SP must be the code holder (block holder if a NPB exists). | | |  | | | | | | FRS, IIS, GDMO | | | | | | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this PTO SV activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in FRS 3.2.1a and IIS 3.2.1a (flow B.5.1.11).  Implemented in GDMO 3.3.0. | | | | | | | N/A | | | | | | N/A / N/A | | | | | | | | | |
| NANC 375 | | | | | | Verizon  11/27/02 (updated 12/31/03) | | | **Limiting Ability to Remove Conflict Status with Certain Cause Code Values**  **Business Need:**  Customers have been taken out of service inadvertently due to the New Service Provider continuing with a port that had been placed into Conflict by the Old Service Provider after the 6 hour timer had expired, instead of investigating why the port was placed into Conflict.  When the Old Service Provider receives a SOA notification from NPAC that another service provider has issued a CREATE message to NPAC in order to schedule a port-in of the Old Service Provider’s customer, the Old Service Provider should check to see that a matching Local Service Request (LSR) has been received from that service provider regarding that specific TN. If no matching LSR is found, the Old Service Provider may place the port into Conflict status with a Cause Value set to “LSR Not Received” (Cause Value 50). In some instances, the New Service Provider is waiting for the 6 hour Conflict Resolution New Service Provider Restriction Tunable Parameter timer to expire, and is proceeding with porting the number. This has led to a number of customers being inadvertently ported and taken out of service from a terminating call perspective because the wrong TN was entered in the original CREATE message sent by the New Service Provider to NPAC.  This proposed Change Order, as did PIM 22 accepted by the LNPA, seeks to prevent instances where customers are taken out of service inadvertently after the New Service Provider continues with a port that had been placed into Conflict by the Old Service Provider. In these cases, the port was placed into Conflict Status by the Old Service Provider because of indications that the New Service Provider may possibly be porting the wrong TNs. | | TBD | | | | | | | | | FRS, IIS, GDMO | | | Func Backwards Compatible: NO  **Description of Change:**  The current Cause Values indicating why the Old Service Provider has placed a port into Conflict are as follows:  50 – LSR/WPR Not Received  51 – Initial Confirming FOC/WPRR Not Issued  52 - Due Date Mismatch  53 - Vacant Number Port  54 – General Conflict  This Change Order proposes that the LNPA revisit the philosophy that led to enabling the New Service Provider to remove a Subscription Version from Conflict status after a specified period of time without first resolving the original conflict with the Old Service Provider. NPAC requirements and functionality should be modified such that only the Old Service Provider is able to remove Conflict status and move a Subscription Version to Pending status when the Conflict Cause Value is set to 50, which signifies that the Old Service Provider has not received a matching Local Service Request (LSR) or Wireless Porting Request (WPR) for the telephone number received in the New Service Provider CREATE notification from NPAC, or when the Conflict Cause Value is set to 51 (Firm Order Confirmation Not Issued).  (continued) | | | | | | | TBD | | | | | | | | TBD / N/A | | | | | | | | | | |
| NANC 375 (con’t) | | | | | |  | | |  | |  | | | |  | | | | | | | Subscription Versions should only be placed into Conflict with a Cause Value set to 50 when the Old Service Provider cannot match an LSR or WPR with the New Service Provider CREATE notification and is reasonably confident that the wrong number is about to be ported. Also, Subscription Versions should only be placed into Conflict with a Cause Value set to 51 when the Old Service Provider has a legitimate reason for withholding the Firm Order Confirmation. A Cause Value of 50 or 51 should not be used in lieu of any other appropriate Conflict Cause Value in order to inappropriately prevent the New Service Provider’s ability to remove Conflict status.  Implemented in FRS 3.3.0a, IIS 3.3.0a and GDMO 3.3.0. | | | | | | |  | | | | | | | | | | |  | | | | | | | | | | |
| NANC 376 | | | | | | NeuStar 12/2/02 | | | **Doc Only Change Order:** Modify Active with Failed List  The current documentation does NOT indicate that for a Modify Active of a subscription version with an existing Failed List, should be rejected by the NPAC. | |  | | | | FRS, IIS, GDMO | | | | | | | Pure Backwards Compatible: YES  Update the current documentation to reflect the behavior of this Modify Active SV activity within the NPAC.  **Dec ’02 LNPAWG**, approved, move to next documentation category.  Implemented in IIS 3.2.1a (update to B.2.1). Implemented in FRS 3.3.0a (new requirement RR5-136). Implemented in GDMO 3.3.0. | | | | | | | N/A | | | | | | | | | | | N/A / N/A | | | | | | | | | | |
| NANC 383 | | | | | | LNPA WG Archcture Planning Team  5/6/03 | | | **Separate SOA channel for notifications**  **Business Need:**  (somewhat related to the existing ILL 5 and NANC 353 change orders).  This change order will separate out notifications with other messages, such that a separate channel will be established for SOA notifications versus all other SOA messages. This performance related change order allows additional throughput on both channels. | | Medium Low | | | | FRS, IIS | | | | | | | Func Backwards Compatible: YES  In order to separate out SOA notifications from all other SOA messages, additional processing logic will need to be developed.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  Implemented in FRS 3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | | Med | | | | | | | | | | | TBD / TBD | | | | | | | | | | |
| NANC 385 | | | | | | LNPA WG  7/10/03 | | | **Timer Calculation – Maintenance Window Timer Behavior**  **Business Need:**  NPAC Timers. As defined in the FRS, concurrence windows/timers are generated at the time an activity occurs in the NPAC that requires the use of a window/timer. Specifically, the future expiration time is calculated and stored, based on the NPAC settings, at the time of the activity. These windows/timers will then expire based on the pre-calculated date/time. Therefore, a timer is not a meter that “runs” only during the Business Day intervals, but rather is a calculation in GMT of the timer's expiration date/time.  Currently, there are no FRS requirements that address timers and NPAC Maintenance Window time periods. An operational issue can arise when an NPAC Maintenance Window time period overlaps with normal business operating hours.  This change order proposes an update to the NPAC so that NPAC Maintenance Window time periods will be factored in when calculating timer expiration date/time (i.e., excluding that period of time from the calculation). This will alleviate the problem where timers expire during the NPAC Maintenance Window time period.  (continued) | | TBD | | | | FRS, GDMO | | | | | | | Func Backwards Compatible: YES  The Timer Expiration Calculation will be modified such that a time period designated as an NPAC Maintenance Window that falls within normal business operating hours will NOT “use up” any hours, when calculating the expiration of a timer. Effectively, the NPAC Maintenance Window time period will be treated the same way as Holidays are currently treated in the NPAC (i.e., excluded from the timer expiration calculation).  This will require entry of Maintenance Window information in the OpGUI by NPAC Personnel (same as Holidays are currently done).  Additionally, a discussion item needs to occur regarding the possible inclusion of Service Provider profile settings to support this new feature.  Implemented in FRS 3.3.0a. | | | | | | | Med | | | | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 385 (cont) | | | | | |  | | | **Aug ’03 LNPAWG**, discussion:  Sprint PCS offered the following:   * + - 1. following up on the Jul ’03 mtg comment about SPID profile toggles, after internal discussions it was deemed to be unnecessary to have SPID toggles.       2. this functionality was no longer high priority, since it was agreed to shorten the extended Sunday Service Provider Maintenance Window to 8 hours, assuming NPAC stays within the 8 hours for maintenance.       3. current concern is that NANC 323 migrations may push maintenance windows beyond the 8 hours.       4. this functionality would have to be in place before agreeing to move the extended maintenance window back to 11 hours.   **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order. | |  | | | |  | | | | | | |  | | | | | | |  | | | | | | | | | |  | | | | | | | | | |
| NANC 386 | | | | | | | | NeuStar  7/24/03 | | **Single Association for SOA/LSMS**  **Business Need:**  Currently, the FRS does NOT address the number of concurrent connections to the NPAC using the same CMIP association function and specific bit mask value. There are no requirements to either support or deny this functionality.  Because change order ILL-5 was proposed during the initial implementation of the NPAC, the NPAC partially supports multiple associations. This partial implementation can allow a situation where there are one or more non-functional CMIP associations between a SOA/LSMS and the NPAC. This situation causes an unnecessary consumption of NPAC resources (and possibly SOA/LSMS resources as well).  This change order will remedy this situation (close the hole) by only allowing a single CMIP association between a SOA/LSMS and the NPAC, for any given association function and specific bit mask value.  **Aug ’03 LNPAWG**, discussion:  This Change Order would only allow a single association for each SOA/LSMS. NPAC would abort the existing association if a new request came in to establish a second association. If implemented, and if we want ILL-5 down the road, we would have to back this functionality out. Tekelec supports this Change Order but would want it fully tested because it is a behavioral change. BellSouth stated they are concerned that this would preclude multiple associations as a means of addressing interface performance. There was agreement to work the requirements for this Change Order. If the next release package contains a need for multiple associations, then NANC 386 would not be implemented. If no need for multiple associations, we could possibly implement NANC 386 in the next package. | | TBD | | | | | | | | FRS, IIS, GDMO | | | | | | | Func Backwards Compatible: YES  The association management function within the NPAC will be modified to allow a single CMIP association between a SOA/LSMS and the NPAC. In the proposed update, if a valid association is active, and a new association request is sent from a SOA/LSMS to the NPAC, the NPAC will abort the first association, and process the request for the second association.  Implemented in IIS 3.3.0a and ASN.1 3.3.0. | | | | | | TBD | | | | | | | TBD / TBD | | | | | | | | | |
| NANC 387 | | | | | | | | TSE  9/3/03 | | **Doc-Only Change Order: IIS Updates**  **Business Need:**  Need to correct some inconsistencies between the IIS flow pictures and/or the corresponding text.  1. B.5.1.6.5:  1a. The second paragraph of the text states "In this case, the **new** service provider SOA issued the create request". It should state "In this case, the **old** service provider SOA issued the create request."  1b. The picture and the text don't match. In the picture we have a M-EVENT-REPORT subscriptionVersionNewSP-**Create**Request (subscriptionVersionRangeNewSP-**Create**Request) but in the text we have subscriptionVersionNewSP-**Concurrence**Request (subscriptionVersionRangeNewSP-**Concurrence**Request). The text is incorrect.  2. B.4.4.13: Step 1 of the flow indicates the SOA is sending 'M-SET Request numberPoolBlock.' The SOA cannot set the object numberPoolBlock but they can set numberPoolBlockNPAC.  3. B.5.5.2: In the picture Item 1 indicates M-ACTION Request subscriptionVersionRemoveFromConflict and Item 4 indicates M-ACTION Response subscriptionVersionRemoveFromConflict. In the text the corresponding items indicate M-ACTION Request/Response subscriptionVersion**NewSP**-RemoveFromConflict. The text is in error and needs to be corrected.  4. B.6.4: The text indicates that the SOA is sending the message to the NPAC but the picture shows the NPAC sending the message to the SOA. The labels on the picture need to be reversed. | | TBD | | | | | | | | IIS | | | | | | | Func Backwards Compatible: YES  Update the current documentation to be consistent and reflect the current behavior.  Implemented in IIS 3.3.0a. | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 388 | | | | | | | | Nextel  9/17/03 | | **Un-do a “Cancel Pending” SV**  **Business Need:**  Currently there are no requirements in the NPAC that allow a Subscription Version (SV) to be manually changed from “Cancel Pending” status to “Pending” status. Without any “un-do” functionality, both Service Providers (SPs) must wait for the Cancellation-Initial Concurrence Window and the Cancellation-Final Concurrence Window to expire (nine hours each), let the SV go to Conflict, and then resolve the Conflict or wait for the Conflict Restriction timer (six hours) to expire in order for it to return to “Pending” (when the Cancel Request was initiated by the Old SP). Alternatively, both SPs could send in cancel requests to the NPAC, at which point the SV would immediately go to “Canceled”, then they could initiate the porting process again.  The current NPAC functionality for a concurred port (where both SPs have sent in Create Requests and the SV is in “Pending” status), then one of the two SPs has sent in a Cancel Request (SV is now in “Cancel Pending” status) is as follows:   1. The New SP initiates the Cancel. The Old SP concurs with the Cancellation-Initial or the Cancellation-Final Concurrence Requests. The status will be changed to “Canceled” upon receipt of the cancel concurrence. Both SPs would have to re-initiate the porting process for this TN.   The New SP initiates the Cancel. The Old SP does not concur with the Cancellation-Initial or the Cancellation-Final Concurrence Requests, the status will be changed to “Canceled” at the expiration of the Final Concurrence expiration. Both SPs would have to re-initiate the porting process for this TN. | | TBD | | | | | | | | FRS, IIS, GDMO, ASN.1 | | | | | | | The recommendation is for a change to the NPAC functionality, such that an SP that sent up a Cancel Request in error, could “un-do” the request by sending a “*retract cancel request*” message to the NPAC.  This new message would allow the SV to change from a “Cancel Pending” status back to a “Pending” status. The NPAC would verify that the SP sending the “*retract cancel request*” message to the NPAC is the same SP that initiated the Cancel Request (otherwise return an error).  There would not be any restriction on when this new message could be sent (i.e., during the 18 hour window that the SV is in Cancel Pending).  No backwards-compatibility flags needed. The change in status (from Cancel Pending back to Pending) can be handled with the existing Status Attribute Value Change. However, SPs should verify with their SOA vendors that an SAVC that is updating a Cancel Pending SV to a Pending SV will not be rejected.  In order to use this new functionality, an SP would need to implement a change in their SOA.  Implemented in FRS 3.3.0a, IIS 3.3.0a, GDMO 3.3.0 and ASN.1 3.3.0. | | | | | | TBD | | | | | | | TBD / TBD | | | | | | | | | |
| NANC 391 | | | | | | | | LNPA WG  1/7/04 | | **Doc-Only Change Order: FRS Updates**  **Business Need:**  1. Need to update functional/operational references to include wireless. Specifically, references to “LSR” and “FOC” should be changed to “LSR/WPR” and “FOC/WPRR” | | TBD | | | | | | | | FRS | | | | | | | Func Backwards Compatible: YES  Update the current documentation to be wireless functional/business operations references.  Implemented in FRS 3.3.0a. | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 392 | | | | | | | | Arch Planning Team  3/11/04 | | **Removal of Cloned Copies of SVs and NPBs**  **Business Need:**  Currently, the FRS requires the NPAC to create cloned copies of SVs and NPBs (a pre-change snapshot, with a new ID and status = old) when various updates are performed (modifies, NPA Splits, SPID Migrations, etc.). This is in addition to updating the data on the “real” SV/NPB. These cloned copies are never broadcast to the SOA or LSMS, so neither system knows about these SVs/NPBs.  As an example, a TN is ported, and is assigned SV-ID 100. That number is part of an NPA Split, a cloned copy is created (SV-ID 110 status = old), and SV-ID 100 is updated with the current NPA Split info. The number has a GTT data change, a cloned copy is created (SV-ID 120 status = old), and SV-ID 100 is updated with the new GTT info. The number has another GTT data change, a cloned copy is created (SV-ID 130 status = old), and SV-ID 100 is updated with the new GTT info. The number is then ported to another SP, and a new known/broadcasted SV is created (SV-ID 200).  When discussed during the Mar ’04 APT meeting, some Service Providers stated that the current functionality is confusing because of the cloned copies, which are returned in a query, since the SOA or LSMS does not know about these ported numbers and their associated “intermediate” SV-IDs.  This change order will remedy this situation by eliminating the “intermediate” records (110, 120, 130). The known/broadcasted records (100, 200, 300) will remain in the NPAC, based on current functionality.  Based on current tunable values, these cloned copies are maintained for 180 days, and maintaining them utilizes a significant amount of NPAC processing. | | TBD | | | | | | | | FRS | | | | | | | Func Backwards Compatible: YES  The functionality for SV/NPB data within the NPAC will be modified to only update the known/broadcasted SV/NPB to reflect the current SV/NPB data.  In the proposed update, “intermediate” SVs/NPBs (i.e., pre-change snapshots which are the cloned copies) will no longer be maintained in the NPAC.  Implemented in FRS 3.3.0a. | | | | | | N/A | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 393 | | | | | | | | Arch Planning Team  5/6/04 | | **NPAC Updated Performance Requirements**  **Business Need:**  The Architecture Planning Team has been evaluating performance numbers and performance requirements, based on porting projections published in the NFG. These projections were used along with available actual volume (top 5 SOA participation percentages, peak/offpeak volume percentages, mix of activates/modifies/disconnects, busy hour/busy day, etc.), to obtain updated performance requirements for the NPAC SMS.  The current FRS performance requirements do not fully account for sustained and peak performance requirements. This change order will provide NPAC SMS performance requirements to account for sustained, peak, and total bandwidth numbers. | | High | | | | | | | | FRS | | | | | | | Func Backwards Compatible: YES  The FRS performance requirements for the NPAC SMS will be updated based on numbers defined during the APT meetings. The April 2004 minutes that capture the discussion are included below:  ***NPAC Forecasting Group (NFG) Traffic Model:*** *Total pooling and porting events projected for 2004 is 111 Million. This is substantially lower. Changes since the last version:*  (continued) | | | | | | High | | | | | | | N/A / N/A | | | | | | | | | |
| NANC 393 (cont’d) | | | | | | | | * *Changed NFG WNP assumptions for subscriber data based upon CTIA data and analyst estimate.* * *Changed wireless pooling forecast to 1.2M per month through end of 2004 from 800K based upon actuals from 2003.* * *Changed churn rate from 50% to 35% per NFG recommendations.* * *Changed % of churn requiring a port from 80% to 50%, which then ramps up by 10 percent per year (per NFG recommendation).*   ***LSMS Throughput Sustained and Peak Requirements Discussion:*** *With the new Traffic Model assumptions, the projected LSMS throughput requirement reflected during the 4Q04 Busy Hour is now less than or equal to 1 message per second for each region. However, it would be ill-advised to use 1 per second as the requirement because if all messages in the hour came in the first second, we would abort. Using the West Coast projected data, which has the highest projection of 3479 messages in the Busy Hour, we would need to support 4 messages per second sustained to clear in 15 minutes to prevent aborting. This equates to total bandwidth of 156 messages per second (30 LSMSs \* 4.0 messages/second + 30 LSMSs \* 1.2 messages per second (peak of 5.2). The assumption still is one peak per hour.*  ***SOA Throughput Sustained and Peak Requirements Discussion:*** *Previously, the group determine that the top 5 SOAs represented 67% of the total SOA messaging traffic. The total bandwidth was calculated and multiplied by 67% to come up with a total bandwidth requirement for the top 5 SOAs. This was then divided by 5 to derive a possible single SOA interface throughput requirement. After reviewing this methodology, the group felt that dividing by 5 inappropriately spread the messaging traffic evenly among the top 5 SOAs. A new methodology was discussed to project the sustained and peak rates for SOA interface throughput. It was agreed to use the top SOA % participation (40% from the Mid-Atlantic Region), and the top SOA message traffic in the Busy Hour (19,326 from the Northeast Region) and plug this into the 4Q04 Summary spreadsheet for the Northeast Region. This resulted in a sustained rate projection of 4.3 messages per second (updated to 4.0 mps during the May ’04 meeting). Next, using 100% participation in the Northeast Region, the total NPAC bandwidth requirement was 10.7 messages per second (updated to 40.0 mps during the May ’04 meeting). This was also determined to be the projected peak rate if a single SOA were to use 100% of the total NPAC bandwidth in a given period of time.*  Implemented in FRS 3.3.0a. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 394 | | | | | | | | LNPA WG  6/16/04 | | **Consistent Behavior of Five-Day Waiting Period Between NPA-NXX-X Creation and Number Pool Block Activation, and Subscription Version Creation and its Activation**  **Business Need:**  As specified in the PIM 38 problem statement, “*The current NPA-NXX-X object (1K Pool Block) tunable of five(5) business days between the Create and Activate is too long and acts as a constraint against service providers.*”  Many service providers use the 1K Pool Block methodology (in addition to Number Pooling Activities) to accomplish Network Re-Home and Acquisition activities. Between the NPA-NXX-X (1K Pool Block) Object Creation date and the Block Activation date there is a mandatory five business day tunable period. During this time, service providers cannot conduct SV activity until the NPA-NXX-X is both created and activated at the NPAC. Any activity will result in error transactions or “SOA NOT AUTHORIZED” 7502. The five business day waiting period allows for increased errors as service providers are unable to conduct activities for pending NPA-NXX-X objects.  Currently, the FRS does not require the NPAC to enforce a five business day delay for conventional ports (inter or intra). However, the FRS does require the NPAC to enforce the waiting period for all Number Pool Blocks (NPBs). Since the reason for the interval is to allow time to provision a switch trigger, consistent behavior is desired.  (continued) | | TBD | | | | | | | | FRS, IIS, GDMO | | | | | | | Func Backwards Compatible: YES  The functionality for both SV and NPB data within the NPAC will be modified to enforce the waiting period minimum (*NPA-NXX-X Holder Effective Date Window tunable parameter*, defaulted to five business days) only when a first port notification for the corresponding NPA-NXX has NOT previously broadcast.  In the proposed update, once a first port notification for an NPA-NXX has been broadcast, the *NPA-NXX-X Holder Effective Date Window tunable parameter* will not apply for subsequent NPB creates/activates, and will therefore allow NPA-NXX-X Creation to be followed by an immediate NPB Activation.  Additionally, for SV data, the addition of the waiting period minimum will provide a restriction that is currently not in the NPAC. Once a first port notification for an NPA-NXX has been broadcast, the minimum restriction window will not apply for subsequent SV creates/activates.  Appropriate changes will also be made for modifications.  Implemented in FRS 3.3.0a, IIS 3.3.0a and GDMO 3.3.0. | | | | | | Med | | | | | | | TBD / N/A | | | | | | | | | |
| NANC 394 | | | | | | | | Continued | | This change order will assist in resolving most of this problem. Since almost all of these NPBs, have already had some porting activity and therefore a first port notification has previously been broadcast, the five day waiting period is not necessary. This change order would require the *NPA-NXX-X Holder Effective Date Window tunable parameter* to be applied in situations only where the first port notification for the corresponding NPA-NXX had not previously been broadcast.  Additionally, this change order would add consistency by requiring the five day waiting period to be applied to SVs (inter or intra) in situations where the first port notification for the corresponding NPA-NXX had not previously been broadcast. | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NANC 399 | | | | | | | | NeuStar  1/5/05 | | **SV Type and Alternative SPID Fields**  **Business Need:**  Refer to separate document (NANC 399 ver zeroDOTthree.doc, dated 3/15/05). | | TBD | | | | | | | | TBD | | | | | | | Func Backwards Compatible: Yes  Implemented in FRS 3.3.0a, IIS 3.3.1a, GDMO 3.3.1 and ASN.1 3.3.1. | | | | | |  | | | | | | |  | | | | | | | | | |

# Release 3.3.1

| **Release 3.3.1 Implemented/Closed Change Orders** | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | | **Orig. / Date** | | **Description** | | **Priority** | | **Category** | | **Final Resolution** | | **Level of Effort** | | | | |
|  | | |  | |  | |  | |  | |  | | **NPAC** | | **LSMS SOA** | | |
| NANC 399 | | | NeuStar  1/5/05 | | **SV Type and Alternative SPID Fields**  **Business Need:**  Refer to separate document (NANC 399 ver zeroDOTthree.doc, dated 3/15/05). | | TBD | | TBD | | Func Backwards Compatible: Yes  Implemented in FRS 3.3.0a, IIS 3.3.1a, GDMO 3.3.1 and ASN.1 3.3.1. | |  | |  | | |
| NANC 404 | | | NeuStar 7/15/05 | | **Doc Only Change Order:** GDMO  The current documentation needs to be updated:  1. Object 19, subscriptionAudit. The behavior incorrectly states an AVC is sent to the originator. This text will be removed.  subscriptionAuditBehavior BEHAVIOR  DEFINED AS!  ~~When the subscriptionAuditStatus~~  ~~changes an attribute value change~~  ~~will be emitted to the audit requester~~  2. Object 15, serviceProv. The behavior does not list all applicable attributes. The text in yellow will be added.  subscriptionAuditBehavior BEHAVIOR  DEFINED AS!  All attributes in this object,  except serviceProvID, serviceProvType,  serviceProvDownloadReason, and  npacCustomerAllowableFunctions can be  (continued) | |  | | IIS, GDMO | | Func Backwards Compatible: YES  Correct the current documentation.  Implemented in GDMO 3.3.1. | | N/A | | N/A / N/A | | |
| NANC 404 (cont) | | |  | | **Doc Only Change Order:** GDMO (continued)  3. Notif 24, applicationLevelHeartbeat. The behavior does not mention the SP tunables. The text in yellow will be added.  applicationLevelHeartbeatBehavior BEHAVIOR  DEFINED AS!  This notification implements a SOA or LSMS Application Level Heartbeat function. With this functionality, for SOA/LSMSs that support this functionality, the NPAC SMS will send a periodic Heartbeat message when a quiet period between the SOA/LSMS and the NPAC SMS exceeds the tunable value. If a SOA/LSMS fails to respond to the Heartbeat message within a timeout period, the association will be aborted by the NPAC SMS.  Optionally, this notification may also be implemented on the SOA or LSMS. With this functionality, regardless of the setting of the SOA/LSMS support flag, the SOA/LSMS ~~will~~ may send a periodic Heartbeat message when a quiet period between the SOA/LSMS and the NPAC SMS exceeds the tunable value. If the NPAC SMS fails to respond to the Heartbeat message within a timeout period, the association will be aborted by the SOA/LSMS.  4. Action 1, lnpDownload, and Action 15, lnpNotificationRecovery. The behavior does not mention the swim-more-data indicator. The text in yellow will be added to both Actions.  An action ID is generated by the NPAC and is added in the SWIM response linked replies. In cases where the last linked reply contains a status of swim-more-data, this indicates that there is more data of the requested type to recover, and the requesting SOA/LSMS should repeat the same action. For each ACTION response, the requesting SOA/LSMS must respond back with the action ID in the next lnpDownload action. | | | | | | | | | | | | |
| NANC 405 | | | NeuStar 7/15/05 | | **Doc Only Change Order:** IIS  The current documentation needs to be updated:  1. Flow 5.5.5. The ACTION is incorrectly identified. This text will be corrected.  …SOA sends the M-ACTION subscriptionVersion~~OldSP-~~RemoveFromConflict…  2. Part I of IIS, section 5.3.3, Error Handling. The current documentation references the two original SP tunables for supporting detailed error codes. The text needs to be updated to list all four SP tunables.  3. Part I of IIS, section 5.2.1.9 Recovery Mode. The current documentation needs to capture SP data, New text in yellow.  Once an association is established in recovery mode by a Local SMS, the Local SMS should request service provider, subscription and network downloads and notifications that occurred during downtime. Once an association is established in recovery mode by a SOA, the SOA should request service provider and network downloads and notifications that occurred during downtime. | |  | | IIS, GDMO | | Func Backwards Compatible: YES  Correct the current documentation.  Implemented in IIS 3.3.1a. | | N/A | | N/A / N/A | | |
| NANC 406 | | | NeuStar 7/28/05 | | **Doc Only Change Order:** FRS  The current documentation needs to be updated:  1. Req 74.4, Query Subscription Version - Output Data. The attribute Download Reason is missing from the list. This text will be corrected.  2. Req RR6-178, 179, 180, Service Provider SOA Notification Channel tunable parameter. Change all references of “*tunable parameter*” to “*indicator*”, to allow flexibility on the implementation of this feature.  3. Req RR3-478, 479, 480, Regional NPAC NPA-NXX Live Indicator. Change all references of “*Regional NPAC NPA-NXX Live*” to “*Region Supports First Usage Effective Date*”, to provide a closer association to the name of this feature.  4. SOA Notification Priority Tunables, Appendix C. L-11.0, G, updates with large font. When a *Pending* or *Conflict* SV has been cancelled by the Old or New SP and the NPAC SMS has set the SV status to *Cancel*-*Pending*. Also, when a *Cancel-Pending* SV is modified back (un-do) to *Pending*. The notification is sent to both SOAs: Old and New. | |  | | FRS | | Func Backwards Compatible: YES  Correct the current documentation.  Implemented in FRS 3.3.1a. | | N/A | | N/A / N/A | | |
|  | | |  | |  | |  | |  | |  | |  | |  | | |

# Release 3.3.2

| **Release 3.3.2 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 407 | | NeuStar  09/01/05 | **NPAC Range Operations and Associated Notifications**  Currently some activities are impacting range operations as follows:   * Some Service Providers are creating SVs in TN ranges, and then sending subsequent requests (modify, activate, disconnect, cancel) as a single TN. * To support NANC 179 – Range Notifications, the NPAC must maintain range information from the original create request. * In a distributed environment, maintenance of the range information must be kept consistent using application locks. * All requests operating on the range must acquire an exclusive lock to ensure consistency of the range information while it’s being updated. * Providers that rapidly send single requests on a group of TNs that were originally created in a range will incur delays and potentially failures as a result of lock contention.   Situations where locks are denied or failed causes misses in the NPAC response time requirement (SLR3). | TBD | TBD | Add to the IIS, section 2.3.3 Notifications:  **Impact of Range Operations on Notifications**. In situations where Subscription Versions are initially created in ranges, then have subsequent activity (modify, activate, disconnect, cancel) performed in singles, TN Range Notifications may change. Specifically, if subsequent activity on a TN range does not equal the initial TN range (subsequent activity is either singles or a subset of the TN range), then initial and final timers (T1, T2) will result in single TN Notifications. TN range requests after the timers would still have the potential to generate TN Range Notifications for Service Providers that support this feature.  New Requirement:  **TN Range Notification Information – Breakup of TN Range Notifications**  NPAC SMS shall send more than one TN Range Notification when a subsequent request is received for a TN range that was different than the original create TN range by breaking up the TN Range and sending single TN Range Notifications.  NOTE: An example of a different subsequent request is an original create range of 5 TNs, followed by an activate of a single TN. This leads to the NPAC breaking up the range into singles upon receipt of the first request that doesn’t match the original create range request. This breakup also causes multiple TN Range Notifications. | TBD | N/A | |
| NANC 407  (continued) | |  | This change order recommends that NPAC incorporate logical range decomposition to alleviate problems with range operations when subsequent activity is for less than the full range submitted in the initial create request:   * The NPAC will break up range information into singles upon receipt of the first request that doesn’t match the original create range. * The assumption is that a single request indicates the provider isn’t going to use range operations. * This will have the side effect of causing single notifications in the event T1 or T2 expire after the subsequent request. * Range requests from providers will still have the potential to generate range notifications (based on support of NANC 179). |  |  | Incorporated in FRS and IIS 3.3.2 |  |  | |
| NANC 409 | | NeuStar  10/27/05 | **Doc-Only Change Order: FRS Updates**  **Business Need:**  1. FRS, R5-46, need to change single TN to include ranges, "Ported Telephone Number (or a specified range of numbers)". Also, need to check other reqs for same correction. Make same change for R5-42, and also include OSP that can do this. Also add 5-51.1.  2. FRS, R6-29.1, need to delete this requirement (it references 25 TNs. This was replaces by three requirements to indicate sustained rate, peak rate, and total bandwidth). It was deleted from the change order package (rather than strikethrough), so it was not removed from the FRS. This change was documented in the 9/3/04 R3.3 (future) change order document, and in the Sep ’04 LNPAWG meeting minutes.  3. FRS, requirement title clarification. The following will be updated:  R5-74.3 Query Subscription Version – Output Data – SOA  R5-74.4 Query Subscription Version – Output Data – LSMS  4. FRS, There are SV query requirements located in the Service Provider section. These should be moved to the SV section (update requirement numbers appropriately, but maintain a reference to their original numbers). Affected requirements include the following: R4-29, R4-30.1, R4-30.2, R4-30.6, R4-30.8.  (continued) | TBD | TBD | Func Backwards Compatible: Yes  Update the current documentation to be consistent and reflect the current behavior.  Incorporated in FRS 3.3.2a |  |  | |
| NANC 409  (con’t) | |  | 5. FRS, new text for R3-30.6.  NPAC SMS shall return a~~n~~ “~~out of range~~ complexity limitation” error and the count of subscription records returned by a query, if more than a tunable parameter number of Subscription Versions are found and the service provider’s SOA SV Query Indicator or LSMS SV Query Indicator is set to False (respective to the SOA or LSMS interface over which they are originating the subscription version query request).  6. FRS, new text for R5-74.4 (Query SV Data – LSMS). The output needs to be updated. It should match the data as listed in the Query SV – SOA (R5-74.3).  7. FRS, new text for RR5-154 and RR5-155 (SV Query, Max Data). The text should be updated to indicate the max data is only returned when the new NANC 285 SPIDable is set to TRUE (added to end of sentence). “*NPAC SMS shall return the Maximum Subscription Query tunable value of Subscription Versions to a SOA, via the SOA to NPAC SMS Interface, when the user requests a Subscription Version query and the number of Subscription Version records that meet the query criteria exceed the Maximum Subscription Query tunable value, and the service provider’s SOA SV Query Indicator is set to TRUE.  (previously NANC 285, Req 1)*”  8 FRS, Requirements names for NANC 323, SPID Migration.  All of the requirements have a title that begins with “*SPID Mass Update…*”. This should be changed to accurately reflect the functionality which is “*SPID Migration…*”. This affects the following requirements (RR3-255 – 275 and RR3-277), glossary description for SIC-SMURF file, SIC-SMURF download file descriptions in Appendix E and the description of Release 3.3 in the Introduction). |  |  |  |  |  | |
| NANC 410 | | NeuStar 11/11/05 | **Doc Only Change Order:** IIS  The current documentation needs to be updated:  1. Part I of IIS, chapter 6 – GDMO and chapter 7 – ASN.1 should be removed from this document. In it’s place insert a note indicating that the latest version is published on the NPAC website, and Service Providers and vendors should use the latest website version. (this will be consistent with the current method of documenting the XML (chapter 8).  2. Part II of IIS, recovery flows in B.7, queued messages are not held for an additional period of time.  For a Local SMS or SOA that initiates recovery, the only step that is required is the lnpRecoveryComplete message, at the end of all previous data recovery requests. This instructs the NPAC SMS to send previously queued messages~~, at the next scheduled retry interval,~~ and resume normal processing.  3. Part II of the IIS, flow B.5.4.2 (deferred disconnect). Text corrections on when the messages are sent.  At this point, the flow follows an immediate disconnect scenario. First the NPAC SMS sets the subscriptionVersionStatus to sending, then the donor service provider’s ~~Local SMS~~ SOA is notified of the impending disconnect. The NPAC SMS ~~sets the subscriptionVersionStatus to sending the broadcast timestamp, notifies the service provider SOA of the status change, and~~ proceeds to issue M-DELETEs for the subscriptionVersion to the Local SMS.  4. Part II of the IIS, Appendix A (error codes). Since the last version of the document, several more error codes have been added to the NPAC SMS. These should be updated in the IIS. |  | IIS, GDMO | Func Backwards Compatible: YES  Correct the current documentation.  Incorporated in IIS 3.3.2. | N/A | N/A / N/A | |

# Release 3.3.3

| **Release 3.3.3 Implemented/Closed Change Orders** | | | | | | | |
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| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 388 v2 | | **NeuStar 5/11/06** | **Un-do a “Cancel Pending” SV**  **Business Need:**  As discussed during the May ’06 LNPAWG meeting, a doc-only update needs to be incorporated to correct the behavior of the current implementation of the un-do functionality. |  | FRS/IIS | Func Backwards Compatible: YES  See attached. Change bars indicate new text.    These are do-only changes:  Implemented in FRS release 3.3.3a 2/28/07  Implemented in IIS release 3.3.3a 2/28/07 | N/A | N/A/ N/A | |
| NANC 411 | | **NeuStar 4/30/06** | **Doc Only Change Order: IIS**  The current documentation needs to be updated:  1. Part II of IIS, SV Create flows in B.5.1.1 and B.5.1.2, object creation notifications include timer type if supported by the SOA, and business type if supported by the SOA. This is added to the list in step 5. This is already reflected in the GDMO under subscription version NPAC behavior, so no corresponding GDMO change is needed.  (continued) |  | IIS | Func Backwards Compatible: YES  Correct the current documentation.  Implemented in IIS release 3.3.3a 2/28/07 | N/A | N/A/ N/A | |
| NANC 411 (con’t) | |  | **Doc Only Change Order: IIS**  2. Part I of IIS, Section 5.3.4, Recovery. The current text incorrectly indicates a failure error (two places), and instead should indicate an abort. “Service Provider and Notification recovery requests can only be sent to the NPAC when the SOA/LSMS is in recovery mode, otherwise an ~~error message~~ ***abort*** is returned.”, and “SWIM based recovery requests can only be sent to the NPAC when the SOA/LSMS is in recovery mode, otherwise an ~~error message~~ ***abort*** is returned.”  Also, add the following text to the SWIM section: If the Service Provider system returns an invalid ACTION\_ID, the NPAC will abort the association.  3. Part II of IIS, Disconnect flows in B.5.4.1 and B.5.4.2. A note should be added to clarify the meaning of donor service provider. NOTE: The “donor service provider“ is the NPA-NXX Holder, or in cases of a TN within a Number Pool Block, it is the NPA-NXX-X Holder.  4. NANC 399 data, current status. The current documentation lists 399 as “inactive in the NPAC”. This note should be removed from the IIS.  5. Part II of IIS, Exhibit 3, CMIP Error Mapping to NPAC SMS Errors. Several entries need to be updated with the June ’06 version of the error file. Also the format of the table should mirror the actual file. This requires the addition of a column labeled “CMIP Error Number”, between the existing error text and CMIP error type.  **(continued)** |  | IIS | Fund Buackwards Compatible: YES  Correct the current documentation  Re #3: also defined Donor SOA, then defined Donor Service Provider as documented in CO. | N/A | N/A/N/A | |
| NANC 411 (con’t) | |  | **Doc Only Change Order: IIS**  6. Part II of IIS, Disconnect flow in B.5.4.1. The extra M-SET steps should be removed. The M-SET that indicates “disconnect-pending” is incorrect. This should be changed to “sending”. The second set of M-SETs should be removed.  7. Part II of IIS, NSP Create flow in B.5.1.2, third part of step 1 (new text in **bold**). Also same change (only applicable for non-PTO) for B.5.1.3, B.5.1.11, B.5.2.3, and B.5.2.4.  The following attributes are optional **when the subscriptionPortingToOriginal-SPSwitch is FALSE (ignored if value set to TRUE)**:   subscriptionEndUserLocationValue  subscriptionEndUserLocationType  subscriptionBillingId  subscriptionAlternativeSPID – if supported by the Service Provider SOA  8. Part I of IIS, new sub-section in Chapter 4, Interface Functionality. |  | IIS | Func Backwards Compatible: YES  For #8, clarify the current documentation and current NPAC behavior, by adding the text in the following attachment.    Re #7: intention of CO is to document the implementation, as such document has been updated to indicat End User Location Value/Type and billing ID and Alt SPID can optionally be specified when PTO=FALSE. When PTO=TRU, the SP cannot specify Alt SPID and all other optional attributes are accepted. | N/A | N/A/N/A | |
| NANC 412 | | NeuStar 5/31/06 | **Doc Only Change Order: FRS**  The current documentation needs to be updated:  1. NANC 399 data, SV Type and Alternative SPID are incorrectly shown in the NPA-NXX-X Data Model (Table 3-13). These should be removed from here, and placed in the Number Pool Block Data Model instead (Table 3-8). The change order definition for NANC 399 correctly shows these two items in the Number Pool Block Data Model.  (continued) |  | FRS | Func Backwards Compatible: YES  Correct the current documentation.  For #2, detailed updates attached:    Implemented in FRS release 3.3.3a 2/28/07 | N/A | N/A/N/A | |
| NANC 412 (con’t) | |  | **Doc Only Change Order: FRS**  2. NANC 399 data, SV Type and Alternative SPID, Appendix E: Download File Examples. These two items should be added to the numberPoolBlock-objectCreation and numberPoolBlock-attributeValueChange.  3. NANC 352 data, SPID Recovery. Service Provider specific tunables need to be added to the NPAC Customer Data Model (Table 3-2). These two items include: SOA Supports SPID Recovery, LSMS Supports SPID Recovery. The default for both is FALSE. These should also be added to the SP data elements requirement (R4-8), and also new requirements to define the tunables (similar to RR6-123, 4, 5).  4. NANC 399 data, current status. The current documentation lists 399 as “inactive in the NPAC”. This note should be removed from the FRS.  5. Appendix E, BDD File for Notifications. The current documentation does NOT list Business Type and Timer Type for Object Creation Notifications, even though these two attributes are currently sent to the SOA over the CMIP interface. The FRS will be updated to indicate the difference (i.e., they are NOT attributes in the BDD file).  (continued) |  | FRS | Func Backwards Compatible: YES  Correct the current documentation | N/A | N/A/N/A | |
| NANC 412 (con’t) | |  | **Doc Only Change Order: FRS (continued)**  6. NANC 138, Definition of Cause Code. Service Provider specific tunables need to be added to the NPAC Customer Data Model (Table 3-2). These two items include: SOA Supports Cancel-Pending to Conflict, LSMS Supports Cancel-Pending to Conflict. The default for both is FALSE. These should also be added to the SP data elements requirement (R4-8), and also new requirements to define the tunables (similar to RR6-123, 4, 5). In order to maintain backwards-compatibility, the return response is slightly different for SOA and LSMS. SOA: if true, return on a query and return on a notification; if false, do not return on a query and return a replacement value of “1” on a notification. LSMS: if true, return on a query; if false, do not return on a query.  7. NANC 399 data, SV Type and Alternative SPID, several requirements. These two items should be consistently documented in the following requirements, RR3-210 and R3-7.2 (remove “if the requesting SOA supports Alternative SPID data”, so that both SV Type and Alternative SPID are consistent).  8. Behavior clarification (new text in **bold**). R5-16, Create Subscription Version - New Service Provider Optional input data.  NPAC SMS shall accept the following optional fields from NPAC personnel or the new Service Provider**, when the subscriptionPortingToOriginal-SPSwitch is FALSE (ignored if value set to TRUE),** upon Subscription Version creation for an Inter-Service Provider port: (reference NANC 399)  (continued) |  | FRS | Func Backwards Compatible: YES  Correct the current documentation.  Re #8: current implementation is documented: On PTO Create if Alt SPID is provided the request fails. End-User Type/Value and Billing ID may be provided for both PTO and non-PTO. On PTO Modify ALL attributes EXCEPT Alt SPID are accepted. Alt SPID causes the modify request to fail. On NON-PTO Modify all attributes are accepted – Alt SPID is only accepted if the SP Supports the attribute. Addl requirements are affected. | N/A | N/A/N/A | |
| NANC 412 (con’t) | |  | **Doc Only Change Order: FRS (continued)**  9. Behavior clarification (new text in **bold**). RR3-275, SPID Migration Update – Rejection for ‘pending-like’ Number Pool Blocks or Subscription Versions  Add the following Note to the requirement: “**This applies to pending-like records where the OSP (migrating-from SPID) is either the code holder or the block holder, and also pending-like records where the previous port is an active record (migrating-from SPID is the NSP) that is being migrated (e.g., SV1 is active and will be migrated, SV2 is pending-like and will be cancelled).**” |  | FRS | Func Backwards Compatible: YES  Correct the current documentation. | N/A | N/A/N/A | |

# Release 3.3.4

| **Release 3.3.4 Implemented/Closed Change Orders** | | | | | | | |
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| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 416 | | LNPA WG 09/13/06 | **BDD File for Notifications – Adding New Attributes**  **Business Need:**  As indicated in NANC 412, doc-only FRS updates, two attributes are not included in the Notification BDD file, even though they are part of the actual notification that is sent to the SOA. With this change order (action item 0906-02), those two attributes will be added to the BDD file, Business Type and Timer Type for Object Creation Notifications, so that the CMIP notification and the BDD file are consistent.  This change order would require development effort for both SOA systems and the NPAC. | TBD | FRS | Func Backward Compatible: TBD  **Nov ’08 LNPAWG**, discussion. Minor clarification on the requirements. The attached shows the placement of the two attributes in the BDD file. These attributes will be included when the Service Provider Notification BDD Attributes Indicator is set to TRUE.    **Nov ’09 LNPAWG,** discussion**:**  It was suggested to move NANC 416 up from Release 3.4 and implement it with NANCs 440 and 441. NANC 416 adds Timer Type and Business Type attributes to the BDD file and is needed for recovery. The group agreed to forward the change order on to the NAPM, and recommend the NAPM request an SOW from Neustar.  Implemented in FRS release 3.3.4a 12/8/09 | Low | Low | |
| NANC 429 | | LNPA WG  3/12/08 | **URI Fields (Voice)**  **Business Need:**  Refer to separate document (last update Mar ’08).  No solution currently exists to address the issue of industry-wide distribution of IP end-point addressing information for IP-based Voice service. No solution addresses portability of such service. Typically, VoIP providers have their own intra-network look up capability in order to terminate calls. The issue lies in the availability of a sharing and distribution mechanism for TN-level routing information between all interested service providers. The provisioning and distributing of routing information is the precise charter of the NPAC for all ported and pooled TNs.  It so happens that today, the vast majority of TNs using IP-based Voice service involve an NPAC transaction (existing TNs migrating to VoIP are ported, new assignments are typically taken from a pooled block). The addition of the URI fields described in this change order is unlikely to cause additional NPAC activates, because the fields are intended for numbers that would be ported or pooled anyway. This is therefore the most cost effective method of provisioning IP look up engines (in whatever flavor they happen to take) with URI information relating to a ported or pooled TN.  The addition of these URI fields to the NPAC also benefits the industry in that it inherently coordinates and synchronizes the update of the SS7-based number portability look up databases with that of the IP-based look up databases. Should the updates not be synchronized, service could be affected for an indeterminate amount of time. |  |  | Func Backward Compatible: Yes  **Mar ’08 LNPAWG,** discussion**:**  With the FCC lifting abeyance on NANC 400, discussion took place on the change order. Several Service Providers requested that NANC 400 be broken up into four separate and distinct change orders, one for each URI Type. These four will be 429, 430, 431, and 432.    **May ’09**, SOW 72 was approved by the NAPM, and will be implemented during the Jun/Jul ’09 timeframe.  This change order adds a new field (Voice URI) to the subscription version and number pool block objects.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | Low | Med / Med-High (new down-stream inter-face). After first one, next one is Low. | |
| NANC 430 | | LNPA WG  3/12/08 | **URI Fields (MMS)**  **Business Need:**  There is a need to enable the ability for SPs and Clearinghouses to look up routing information for IP-based services associated with ported and pooled numbers. Since default CO code level data does not apply for these TNs, query engines need to be provisioned with a portability and pooling correction. The addition of this field will satisfy this need and enable both individual SPs, as well as Service Bureaus, to automatically update their look up engines with the new routing data. This IP-service routing field is in fact directly analogous to the existing SS7-based DPC/SSN routing fields already supported by NPAC (i.e. – ISVM, LIDB, WSMSC, etc…). |  |  | Func Backward Compatible: Yes  **Mar ’08 LNPAWG,** discussion**:**  With the FCC lifting abeyance on NANC 400, discussion took place on the change order. Several Service Providers requested that NANC 400 be broken up into four separate and distinct change orders, one for each URI Type. These four will be 429, 430, 431, and 432.    **May ’09**, SOW 72 was approved by the NAPM, and will be implemented during the Jun/Jul ’09 timeframe.  This change order adds a new field (MMS URI) to the subscription version and number pool block objects.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | Low | Med / Med-High (new down-stream inter-face). After first one, next one is Low. | |
| NANC 435 | | LNPA WG  6/9/08 | **URI Fields (SMS)**  **Business Need:**  SMS (texting) is a store and forward messaging service that allows SMS-compatible subscribers to send and receive short text messages. SMS subscribers are addressed via their 10-digit telephone number and an e-mail address. SMS is transported via IP by the originating network using URIs to indicate the network address or gateway SMSC of the terminating user. SMS is growing into a broadband wireline feature as a result of the growth of IP-based broadband networks.  SMS originating Carriers need to know if a terminating 10 digit TN is SMS capable (wireless or broadband) and if SMS capable the address of the SMSC. Having a standardized central source to locate the TN/SMS mapping will eliminate attempts to deliver messages to non-SMS capable TNs and reduce customer complaints over dropped or missed messages that have not, nor could be delivered. The NPAC SMS URI parameter function would be analogous to the DPC/SSN gateway data in the NPAC; that is, the “URI” would merely identify the carrier gateway (SMSC) appropriate for sending/receiving an SMS message to a particular ported or pooled TN.  The availability of the SMS URI will allow originating carriers to recognize SMS capable TNs so that IP based carriers delivering service to traditionally “landline” numbers from wireless TNs can determine if the TN is SMS capable and use the URI for terminating network routing information. Increased usage and a high success rate on message delivery are the two primary benefits of this new NPAC feature. |  |  | Func Backward Compatible: Yes  **Jun ’08 LNPAWG,** discussion**:**  After walking through the Business Need section, and a brief explanation of the Description of Change, the group agreed to accept this change order, and allow it to be prioritized along with the change orders for the next package.    **May ’09**, SOW 72 was approved by the NAPM, and will be implemented during the Jun/Jul ’09 timeframe.  This change order adds a new field (SMS URI) to the subscription version and number pool block objects.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | Low | Med / Med-High (new down-stream inter-face). After first one, next one is Low. | |
| NANC 436 | | NeuStar  8/22/08 | **Optional Data – alternative End User Location and alternative Billing ID**  **Business Need:**  The End User Location Value, End User Location Type, and Billing ID fields in the NPAC's Subscription Version records are supported only for LSPP, and LISP SVs only. These fields are not supported in pooled block records.  Carriers have used these “future use” fields for various purposes. When the telephone numbers involved are in pooled blocks, the carrier must intra-SP port the numbers in order to create entries in any of the three fields. This defeats the purpose of EDR, where up to a thousand pooled numbers can be represented as a single pooled block record in the industry's LNP databases.  As a result of recent activity involving the population of these records for numbers that were in pooled blocks, many carriers' LNP databases are reaching their storage limits before planned storage capacity expansions are scheduled. Thus a method to accommodate the population of the three unsupported fields for pooled numbers is urgently needed.  Because adding the three unsupported fields to the pooled block record requires many changes in the NPAC SMS and is an interface change affecting local systems as well, the addition of three more parameters in the Optional Data field is proposed. This has no impact on local systems that do not wish to receive these parameters in NPAC downloads. The parameters would parallel the specifications for the three existing fields and be named Alt-End User Location Value, Alt-End User Location Type, and Alt-Billing ID. |  |  | Func Backward Compatible: Yes  **Sep ’08 LNPAWG,** discussion**:**  A review and discussion took place on the three fields, and the process and benefit of adding them to the OptionalData attribute in both the SV and Pooled Block records. The change order was accepted, and will be slated to be implemented before the end of the year.    **Oct ’08**, SOW 69 was approved by the NAPM, and will be implemented during the Oct ’08 timeframe.  This change order adds new fields (Alt-End User Location Value, Alt-End User Location Type, and Alt-Billing ID) to the subscription version and number pool block objects.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | Low | TBD | |
| NANC 438 | | NeuStar  7/15/09 | **Last Alternative SPID**  **Business Need:**  The existing Alternative SPID parameter (within the OptionalData attribute) was introduced to allow Service Providers having a wholesale business relationship with subtending Service Providers, to identify the subtending Service Provider. However, since the Alternative SPID was implemented, sometimes the provider having the retail relationship with the end user must be identified in the Alternative SPID parameter. Because the subtending Service Provider having the wholesale business relationship with the network Service Provider, and the subtending Service Provider having the retail business relationship with the end user, may be different, there is a need to have the ability to separately identify two Alternative SPID values. |  |  | Func Backward Compatible: TBD  **Jul ’09 LNPAWG,** discussion**:**  NeuStar presented slides during the May ’09 meeting, and the group indicated a change order needs to be provided.  **Sep ’09 LNPAWG,** discussion**:**  The group agreed to forward the change order on to the NAPM LLC, to request an SOW from NeuStar.  **Dec ’09**, SOW 76 was approved by the NAPM, and will be implemented during the Feb ’10 timeframe.  This change order adds new parameter within the OptionalData attribute (Last Alternative SPID) to the subscription version and number pool block objects.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | TBD | TBD | |
| NANC 439 | | NeuStar  8/18/09 | **Doc-Only Change Order: FRS Updates**  Per approval by the NAPM LLC (SOW 75 for “Elimination of Dial-Up Port to NPAC Network”), there is the elimination of all existing dial-up access arrangements for NPAC LTI users. As such, the text in the FRS needs to remove all references to dial-up access. |  | FRS | Func Backwards Compatible: YES  Correct the current documentation.  For detailed updates see attached:    Implemented in FRS release 3.4.0a 3/19/10 |  |  | |
| NANC 440 | | NeuStar  9/15/09 | **FCC Order – Medium Timers**  **Business Need:**  On May 13, 2009, the Federal Communications Commission (FCC) adopted and released FCC Order 09-41, which mandates industry implementation of a one Business Day porting interval for simple ports.  During the development of the recommended requirements in support of FCC Order 09-41, the LNPAWG identified the following Change Orders required for the NPAC to support the shortened porting interval. These changes in the NPAC will also require changes in Service Provider local systems, e.g., SOA, LSMS, Operational Support Systems (OSSs), etc.  Refer to separate document for more details. |  |  | Func Backward Compatible: Yes  A new set of NPAC timers will be added to support a shortened porting interval for simple ports (wireline, intermodal) as defined in FCC Order 09-41. This will apply to Subscription Versions, but not to Number Pool Blocks.  In the Service Provider Profile, a new support tunable will be added. This indicator will identify whether or not an SP supports the use of the Medium Timers. This is needed because of the two-stage implementation (nine months for large carriers, and twelve months for small carriers), as well as carriers that may obtain a waiver from the FCC on implementation.  **Sep ’09 LNPAWG,** discussion**:**  The change order was discussed during two sub-team con call meetings (9/8/09 and 9/11/09). It was discussed and accepted during the full LNPAWG meeting (9/15/09).  **Nov ’09 LNPAWG,** discussion**:**  The group agreed to forward the change order on to the NAPM, and recommend the NAPM request an SOW from Neustar.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | TBD | TBD | |
| NANC 441 | | NeuStar  9/15/09 | **FCC Order – New SP Medium Timer Indicator and Old SP Medium Timer Indicator**  **Business Need:**  On May 13, 2009, the Federal Communications Commission (FCC) adopted and released FCC Order 09-41, which mandates industry implementation of a one Business Day porting interval for simple ports.  During the development of the recommended requirements in support of FCC Order 09-41, the LNPAWG identified the following Change Orders required for the NPAC to support the shortened porting interval. These changes in the NPAC will also require changes in Service Provider local systems, e.g., SOA, LSMS, Operational Support Systems (OSSs), etc.  Refer to separate document for more details. |  |  | Func Backward Compatible: Yes  Two new SOA attributes will be added to support a shortened porting interval for simple ports (wireline, intermodal) as defined in FCC Order 09-41. This will apply to Subscription Versions, but not to Number Pool Blocks.  In the Service Provider Profile, a new support tunable will be added for NANC 440 (Medium Timers Support Indicator). In addition to indicating support of Medium Timers, this new tunable will identify whether or not an SP supports the use of the new SV attributes. This is needed because of the two-stage implementation (nine months for large carriers, and twelve months for small carriers), as well as carriers that may obtain a waiver from the FCC on implementation.  **Sep ’09 LNPAWG,** discussion**:**  The change order was discussed during two sub-team con call meetings (9/8/09 and 9/11/09). It was discussed and accepted during the full LNPAWG meeting (9/15/09).  **Nov ’09 LNPAWG,** discussion**:**  The group agreed to forward the change order on to the NAPM, and recommend the NAPM request an SOW from Neustar.  Implemented in FRS 3.3.4a 12/8/09  Implemented in IIS release 3.3.4a 12/9/09 | TBD | TBD | |

# Release 3.3.4.1

| **Release 3.3.4.1 Implemented/Closed Change Orders** | | | | | | | |
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| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 442 | | NeuStar  01/13/10 | **Pseudo-LRN**  **Business Need:** Service Provider LSMS and downstream system capacity has been and remains a concern for high growth rates in the future.  Based on the current requirements for the NPAC, an active LRN owned by the New Service Provider must be provided on the Create message. There have been some NPAC use cases that do not require an LRN to route voice calls:  • Population of TNs with altSPID reseller information, for the purposes of pre-port identification, routing SMS/MMS messages, and law enforcement/public safety.  • Preparation for network management activities that keep pace with LNP and Pooling updates.  The NPAC currently requires that all active TNs and Number Pooled Block (NPB) records contain an active LRN, and that all TNs be broadcast to all regional LSMSs. LSMS systems and downstream network systems may not need to receive SVs and NPBs from the NPAC for traditional voice routing purposes, if the LRN is only being populated in order to publish other information (e.g., altSPID field). If the LRN field were made optional (using a pseudo value) in the NPAC, users could create records without stipulating that downstream network elements be updated with new PSTN voice routing instructions. Service providers could opt-in to receive pseudo-LRN SVs and NPBs (in total or based on SPID), allowing them to manage LSMS capacity constraints and control downstream system growth rates.  Refer to the attached document for more detailed information: |  |  | Func Backward Compatible: Yes  This change order is being created to mitigate the impact of NPAC record growth on LSMSs and downstream systems caused by network management activities. The NPAC will be updated to allow an SV/NPB to contain a pseudo-LRN value. Pseudo-LRN SV/NPB data is not needed by LSMSs for traditional voice routing, these records will be broadcast only to an LSMS that supports the pseudo-LRN value and is configured to receive this data from the activating SPID.  Nov ’09 LNPAWG, discussion:  A presentation was provided as a starting point for discussion on addressing LSMS capacity issues. A change order was requested to be brought into the Jan ’10 meeting.  Jan ’10 LNPAWG, discussion:  A presentation and a change order document were provided. The change order was accepted.  Mar ’10 LNPAWG, discussion:  The change order was approved by the LNPAWG, with a recommendation to be sent to the NAPM LLC to request an SOW from Neustar on this change order.  Implemented in FRS 3.4.0a 3/19/10  Implemented in IIS 3.4.0a 3/19/10  Implemented in software release 3.3.4.1. | TBD | TBD | |

# Release 3.4

| **Release 3.4 Implemented/Closed Change Orders** | | | | | | | |
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| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 147 | | AT&T  8/27/97 | **Version ID Rollover Strategy**  **Business Need:**  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. One should be defined so that the vendor implementations are in sync. Currently the max value used by Lockheed is a 4 byte-signed integer and for Perot it is a 4 byte-unsigned integer.  Refer to the attached document for more detailed information: |  | FRS/IIS | Functional Backward Compatible: YES  The NPAC SMS shall implement a strategy whereby the version ID is incremented until the maximum ([2\*\*31] –1) is achieved, then start over at minus [2\*\*31]), 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).  This affects Audit ID, Action ID, Subscription Version ID, LRN ID, NPA-NXX ID, NPA-NXX-X ID, and Number Pool Block ID.  Implemented in FRS 3.4.0a 3/19/10.  Implemented in IIS 3.4.0a 3/19/10. | Low | None/None | |
| NANC 355 | | SBC  4/12/02 | **Modification of NPA-NXX Effective Date**  **Business Need:**  When the NPAC inputs an NPA Split requested by the Service Provider and the effective date and/or time of the new NPA-NXX does not match the start of PDP, the NPAC cannot create the NPA Split in the NPAC SMS. To correct this problem the NPAC can contact the Service Provider and have them delete and re-enter the new NPA-NXX specified by the NPA Split at the correct time, or the NPAC can delete and re-enter the NPA-NXX for the Service Provider.  However, the NPA-NXX may already be associated with the NPA Split at the Local SMS, and the subsequent deletion of the NPA-NXX will cause that specific record to be old time-stamped. When the NPA-NXX is re-created, that new record will have a different time stamp, and it requires a manual task for the Service Provider to search for new NPA-NXX records which might match the NPA Split. If identified and corrected, it will be added. If not identified, it will affect call routing after PDP. |  | FRS/IIS | Functional Backward Compatible: YES  An enhancement to the NPAC SMS will allow NPAC personnel to modify the NPA-NXX Effective Date so long as no pending-like SVs exist so that Service Providers that do not support this modification functionality will still be able to process a delete and re-add from the NPAC.  It would be the responsibility of the owner of the NPA-NXX to resolve issues of pending versions with due dates prior to the new effective date before a change could be made.  The NPAC will notify the SOA/LSMS that support the modification enhancement of a modified effective date (M-SET).  Implemented in FRS 3.4.0a 3/19/10.  Implemented in IIS 3.4.0a 3/19/10 | Med | Med/Med | |
| NANC 396 | | LNPA WG 9/9/04 | **NPAC Filter Management – NPA-NXX Filters**  **Business Need:**  The existing NPAC Filter Management process only allows a filter to be applied for a particular NPA-NXX if that particular NPA-NXX has previously been opened within NPAC. SOA/LSMS administrators who administer their filters over the CMIP interface must still wait upon receipt of a new code opening from the NPAC to create a new filter. SOA/LSMS administrators are manually unable to efficiently filter out unnecessary Subscription Versions based on NPA-NXX for the purpose of SOA/LSMS capacity management.  Refer to the attached document for more information: |  |  | Functional Backward Compatible: YES  This Change order proposes that NPA-NXX or NPA (to account for any NXX in a particular NPA) filters may be implemented for an NPA-NXX before it is entered into the NPAC.  1. The NPAC will continue to support filters at the NPA-NXX level.  2. The NPAC will add support of filters at the NPA level.  3. Existing filter functionality related to broadcasts will remain in the NPAC (i.e., the NPAC will NOT broadcast data to an LSMS that has a filter for a given NPA or NPA-NXX).  4. No modifications required to local systems (SOA, LSMS).  5. No tunable changes.  6. No report changes.  Implemented in FRS 3.4.0a 3/19/10 | Med | None/None | |
| NANC 397 | | Verizon/SNET Diversified Group  7/28/04 | **Large Volume Port Transactions and SOA Throughput**  **Business Need:**  Service Providers have voiced concerns about the volume of port transactions that the NPAC can process per second when mass changes need to be made and broadcasted to the industry especially now that wireless service providers are porting throughout the United States. There are several factors which will attribute to even larger volumes of port transactions and mass change needs like:   * Wireless porting throughout the US. These providers are constantly updating their networks and as such, necessitate mass changes to ported records. * Processing through the SOA, at the current rate of 4 to 6 transactions per second, it could take more than 4 hours to make LRN changes to 100,000 subscribers * Current Mass Porting limitations by Service Provider and by region does not necessarily allow a Service Provider to make their changes when they are needed/ass they are needed. * Mass Porting feature is a highly coordinated effort and requires many different parties to participate. |  |  | Functional Backward Compatible: YES  New port volume guidelines are established as a result of NANC 397.  Refer to the attached document for more information:    Implemented in FRS 3.4.0a 3/19/10 | High | Med-High/Med-High | |
| NANC 408 | | T-Mobile  10/25/05 | **SPID Migration Automation Change**  **Business Need:**  The currently NANC 323 SPID Migration procedure requires a fair amount of manual processing by both Service Providers and NPAC, beginning with the initial SPID migration request form, through performing the actual SPID migration during the maintenance window. With the frequency of SPID Migrations (several times every month), this creates a personnel resource situation that could be helped through software automation. |  |  | Functional Backward Compatible: YES  NANC 408 automates a variety of the manual NANC 323 SPID Migration features including (but not limited to):   * Form processing * Notification management * SMURF file distribution   Refer to the attached document for more information:    Implemented in FRS 3.4.0a 3/19/10  Implemented in IIS 3.4.0a 3/19/10 |  |  | |
| NANC 413 | | NeuStar  5/31/06 | **Doc Only Change Order: GDMO**  The current documentation needs to be updated.  Refer to the attached document for more information: |  |  | Functional Backward Compatible: YES  Implemented in 3.4.0 GDMO |  |  | |
| NANC 414 | | LNPA WG  11/14/06 | **Validation of Code Ownership in the NPAC**  **Business Need:**  There is no validation of ownership when a code is opened in NPAC’s network data and codes sometimes are opened in NPAC under the wrong SPID. There have been instances of carriers working around the NPAC’s validation of TN ownership when code ownership data is not correct in NPAC by entering the wrong old-SP SPID value to match the NPAC’s code ownership data in the new SP’s create request. This allows the NPAC porting processes to proceed, but the actual current service provider does not receive NPAC notifications about the impending port. An incorrect code ownership indication in NPAC’s network data delays the porting process and can create a substantial burden on industry to correct subsequent errors in individual ported TN records.  Refer to the attached document for more information: |  |  | Functional Backward Compatible: YES  The change is to verify code ownership when new NPA-NXXs are opened in the NPAC. The following items apply:   * NANPA website is the public data source for code ownership. * SPs provide the set of OCNs associated with each NPAC SPID. * SPs notify NeuStar for any code ownership changes that are not reflected accurately on the NANPA website. (This can occur if SP performs code transfer without notifying NANPA.) * NeuStar enhances the NPA-NXX Create request validation rules to verify code ownership. * Code ownership applies to NPA Splits (if the OCN of the new NPA-NXX is not associated with the owner of the old NPA-NXX, the NPAC will reject the split request).   Implemented in FRS 3.4.0a 3/19/10 | Med | None-Low/None-Low | |
| NANC 418 | | Syniverse Technologies  12/18/06 | **Post-SPID Migration SV Counts**  **Business Need:**  The current SMURF file provides a count of the number of LRNs that are changing. However, it does not provide a count of SVs that are changing per (each) LRN. When the SMURF files are run, every SV that is assigned to an affected LRN is changed in the LSMS.  The notices that are sent out include only an estimate of the number of SVs, as they are created well in advance of the actual creation of the production SMURF file. Performing spot checks to confirm those estimates has led to the conclusion that there are extremely wide disparities between the estimates provided in the notice and the actual number of SVs that are updated using the LRNs included in the SMURF file. For the purpose of ensuring the integrity of the file received, as well as the update process results, the actual number of SVs per LRN that are transmitted in the SMURF file should be provided. |  |  | Functional Backward Compatible: YES  This change order would add a post-migration SV count for each LRN in a SMURF file.  The NPAC is to provide a separate post-migration report to the industry. This report would capture, by LRN, the quantity of SVs updated by the NPAC during the migration.  The report data will be broken down by pooled and non-pooled counts.  Implemented in FRS 3.4.0a 3/19/10 | Low | None/ None | |
| NANC 420 | | NeuStar  3/31/07 | **Doc-Only Change Order: FRS Updates**  **Business Need:**  Update the current documentation to be consistent and reflect the current behavior.  Refer to the attached document for more information: |  |  | Functional Backward Compatible: YES  The FRS is updated to reflect documentation-only changes described in this change order.  Implemented in FRS 3.4.0a 3/19/10 | None | None/ None | |
| NANC 421 | | NeuStar 3/31/07 | **Updates for Prepaid Wireless SV Type**  **Business Need:**  The current documentation needs to be updated to reflect Prepaid Wireless SV Type.  Refer to the attached document for more information: |  |  | Functional Backward Compatible: YES  Update GDMO and ASN.1 for Prepaid Wireless SV Type.  Implemented in FRS 3.4.0a 3/19/10  Implemented in 3.4.0 ASN.1 and GDMO | Low | Low/ Low | |
| NANC 422 | | NeuStar  6/30/07 | **Doc-Only Change Order: IIS Updates**  **Business Need:**  Update the current documentation to be consistent and reflect the current behavior.  **Description of Change:**  Update the IIS.  Refer to the attached document for more information: |  |  | Backward Compatible: YES  Update the IIS.  Implemented in IIS 3.4.0a 3/19/10 | None | None/ None | |
| NANC 424 | | VeriSign  9/11/07 | **Number Pool Block (NPB) Donor Disconnect Notification Priority Indicator**  **Business Need:**  (PIM 65) – When Number Pool Blocks (NPBs) are disconnected, the defined flow (IIS B.4.4.24) includes an SV Donor Disconnect notification to the Donor SOA. In some instances, the Donor SOA may not wish to receive these notifications. In the current notification prioritization functionality, there is no option to indicate a priority level specific to a de-pool and the associated SV Donor Disconnect notifications. Without this option, the Donor SOA may receive unwanted notifications (if not supporting range notifications, could receive up to 1000 notifications). |  |  | Backward Compatible: YES  The NPAC SMS would add a notification category specific to the SV Donor Disconnect notification when an NPB is disconnected.  Implemented in FRS 3.4.0a 3/19/10 | Low | None-Low/ None | |
| NANC 426 | | VeriSign  10/10/07 | **Provide Modify Request Data to the SOA from Mass Updates**  **Business Need:**  (PIM 66) – Currently, when the NPAC conducts a mass update (modify-active) for a SOA customer; the SOA does not receive any notifications containing the modified attributes. For SOAs that maintain SV data beyond the time of port activation, this creates an out-of-synch situation between the SOA database and the NPAC database. |  |  | Backward Compatible: YES  The NPAC SMS would add a tunable parameter to the SPID-level customer profile that could be set to allow the sending/suppression of modify data to the respective SOA as a result of a mass update (modify-active).  Implemented in FRS 3.4.0a 3/19/10  Implemented in IIS 3.4.0a 3/191/10 | Med | Low-Med/ None | |
| NANC 427 | | Qwest  1/8/08 | **Error Reduction for DPC entries in new ported and pooled records**  **Business Need:**  Qwest has found that some Service Providers do not populate the Vertical Services (CNAM/LIDB/CLASS/ISVM) Destination Point Code entries correctly on ported and pooled records. This creates a three-part problem:  1.) a large volume of Message Transfer Part (MTP) routing errors in participating networks,  2.) the need for trouble reports and the necessary manual work to follow up on the trouble reports, and  3.) the need for Modify broadcasts to get the ported and pooled records corrected.  Besides the impact on Service Providers that have to deal with the routing data errors, consumers are impacted when their SS7-based services do not operate correctly. Because the current Service Provider’s Final GTT values override the vertical service point codes used on the NPAC’s ported and pooled records, for numbers served within its network, the current Service Provider may not be aware of the problem unless contacted by another provider.  This change order improves the accuracy of all DPC values on new ported and pooled records. |  |  | Backward Compatible: YES  The proposed change modifies the NPAC, by maintaining a table of “valid” Vertical Service Destination Point Codes for each SPID (hereafter called “VST” or Vertical Service Table). The VST allows the NPAC to implement a business rule to detect a port request with one or more incorrect Destination Point Codes.  Refer to the attached document for more information:    Implemented in FRS 3.4.0a 3/19/10 | Med-High | None/None | |
| NANC 428 | | NeuStar  3/12/08 | **Update NPAC File Transfer Method from FTP to Secure-FTP**  **Business Need:**  The major reason for implementing SFTP versus FTP is security. In FTP all data is passed back and forth between the client and server without the use of encryption. Therefore data, passwords, and usernames are all transferred in clear text making them susceptible to eavesdropping, man-in-the-middle attacks, and integrity issues. The implementation of SFTP (Secure File Transfer Protocol) is estimated to be a 6-12 month coordinated effort between NeuStar and the industry. |  |  | Backward Compatible: YES  Implement SFTP, an interactive file transfer program.  SFTP is similar to FTP except that SFTP performs all operations in an encrypted manner. It utilizes public key authentication and compression. It connects and logs into a specified host, then enters an interactive command mode. Utilizing SFTP requires the installation of the OpenSSH suite of tools. OpenSSH encrypts all traffic (including passwords) to reduce the likelihood of eavesdropping and connection hacking.  Implemented in FRS 3.4.0a 3/19/10 | Low | Low/Low | |
| NANC 433 | | LNPA WG  3/12/08 | **VoIP SV Type**  **Business Need:**  During the discussion of FCC Order 07-188, participants agreed that the SV Type values should be modified to align with the definition in the Order.  VoIP SV Type in the FRS-- In both the intro section (1.2.16) and the data model section (SV data model – table 3-6, and Number Pool Block data model – table 3-8), the text for “voIP” should be replaced with “Class 2 Interconnected VoIP”, and “SV Type 5” should be replaced with “Class 1 Interconnected VoIP”. |  |  | Backward Compatible: YES  Update the FRS accordingly.  Implemented in FRS 3.4.0a 3/19/10  Implemented in 3.4.0 ASN.1/GDMO | Low | Low/Low | |
| NANC 434 | | LNPA WG  3/12/08 | **VoIP SP Type**  **Business Need:**  During the discussion of FCC Order 07-188, participants agreed that the SP Type values should be modified to align with the definition in the Order.  VoIP SP Type in the FRS-- In the data model section (NPAC Customer data model – table 3-2), the text for “SP Type3” should be replaced with “class1Interconnected VoIP”. |  |  | Backward Compatible: YES  Update the FRS accordingly.  Implemented in FRS 3.4.0a 3/19/10  Implemented in 3.4.0 ASN.1/GDMO | Low | Low/Low | |
| NANC 439 | | NeuStar  8/18/09 | **Doc-Only Change Order: FRS Updates**  **Business Need:**  Per approval by the NAPM LLC (SOW 75 for “Elimination of Dial-Up Port to NPAC Network”), there is the elimination of all existing dial-up access arrangements for NPAC LTI users. As such, the text in the FRS needs to remove all references to dial-up access. |  |  | Backward Compatible: YES  Update the FRS accordingly.  Implemented in FRS 3.4.0a 3/19/10 | None | None/None | |
| NANC 443 | | LNPA WG  1/31/10 | **Doc-Only Change Order: ASN.1 Update**  **Business Need:**  The current documentation needs to be updated.  **Description of Change:**  Update ASN.1 for Audit Status label.  The label associated with enumeration 1 needs to be changed from “suspended” to “cancelled”. |  |  | Backward Compatible: YES  Update the ASN.1 accordingly.  Implemented in 3.4.0 ASN.1 | Low | Low/Low | |

# Release 3.4.2

| **Release 3.4.2 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 444 | | Neustar  3/16/11 | **LTI Enhancements**  **Business Need:**  Refer to the attached document for more detailed information: |  |  | Functional Backward Compatible: YES  **Mar ’11 LNPAWG,** discussion**:**  A walk-thru of the proposed change order took place. The group accepted the change order. | Medium | None/  None | |

# Release 3.4.3

| **Release 3.4.3 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 445 | | Neustar  6/22/11 | **Doc-Only Change Order: FRS Updates**  **Business Need:**  Update the current documentation to be consistent and reflect the current behavior.   1. Update Appendix E, BDD Files to clarify Optional Data (when included, where placed). 2. Update Appendix E, SIC-SMURF Files to correct the end-of-line character (change from CR to LF). |  |  | Functional Backward Compatible: YES  Update the FRS. | None | None/  None | |
| NANC 446 | | Neustar  7/12/11 | **Pending SV Interference**  **Business Need:**  Refer to the attached document for more detailed information: |  |  | Functional Backward Compatible: YES  **Jul ’11 LNPAWG,** discussion**:**  A walk-thru of the proposed change order took place. The group accepted the change order.  **Sep ’11 LNPAWG,** discussion**:**  The group agreed to forward the change order to the NAPM for an SOW request. | Medium | None/  None | |

# Release 3.4.4

| **Release 3.4.4 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 448 | | LNPA WG  11/09/11 | **NPAC Sunset of Non-EDR**  **Business Need:**  Refer to separate document. |  |  | Func Backward Compatible: YES  **Jan ’12 LNPAWG,** discussion**:**  A walk-thru of the proposed change order took place. The group accepted the change order.  **Mar ’12 LNPAWG,** discussion**:**  The group agreed to forward the change order to the NAPM LLC, to request an SOW from Neustar. | Medium | None/  None | |

# Release 3.4.6

| **Release 3.4.6 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
| NANC 372 | | Bellsouth 11/15/02 | **SOA/LSMS Interface Protocol Alternatives**  **Business Need:**  **Refer to separate documents.** |  |  | Func Backward Compatible: TBD    May ’09 – Jan ‘13 LNPAWG, discussion:  The group has continued reviews during the monthly mtgs.  Mar ’13 LNPAWG, discussion:  The group agreed to forward the change order to the NAPM LLC, to request an SOW from Neustar.  Current version of delta FRS, XIS, and XSD can be found on the NPAC website. | High | High / High | |
| NANC 450 | | LNPA WG  06/04/12 | **Doc-Only Change Order: FRS/IIS Updates**  **Business Need:**  Update the current documentation to be consistent and reflect current behavior.   1. IIS. Flow B5.1.4, Subscription Version Create by Second SOA (Old Service Provider) with Authorization to Port. Clarify subscription-status-change-cause-code field is required. The following will be added to the bulleted list of attributes, “subscriptionStatusChangeCauseCode (set to no-value-needed)”. 2. IIS. Flow B5.2.7, Subscription Version Modify Disconnect Pending Using M-ACTION by Service Provider SOA. Change attributes in step 2 in picture, from SV status = sending and SV Broadcast TS – to – SV Modified TS. 3. IIS. Part 1, section 4.9, NPAC Rules for Handling of Optional Data Fields. In SWIM recovery section, change to the following: Provider systems should store the fields as specified ~~above for Activate or Modify operations~~ in the message. For both Activate and Modify, all attributes in the object (including supported optional data fields that are populated) will be sent to accommodate object creation in provider systems.  If no supported optional data fields are populated the Optional Field string is omitted entirely. If a Modify removed a value from an optional field, it is included in the string with a value of nil. |  |  | Func Backward Compatible: Yes  Update the FRS/IIS. | None | None / None | |
| NANC 451 | | Neustar  11/21/12 | **Doc-Only Change Order: GDMO Updates**  **Business Need:**  Update the current documentation to be consistent and reflect current behavior.  Audit Results Failed List  -- 11.0  LNP Audit Result Failed Service Provider List  auditResultFailed-SP-List ATTRIBUTE  WITH ATTRIBUTE SYNTAX LNP-ASN1.Failed-SP-List;  MATCHES FOR EQUALITY;  BEHAVIOUR auditResultFailed-SP-ListBehavior;  REGISTERED AS {LNP-OIDS.lnp-attribute 11};  auditResultFailed-SP-ListBehavior BEHAVIOUR  DEFINED AS !    This attribute is used to store, in an audit results    notification in a log record, the list of failed service    providers ~~for an audit that failed due to failures on Local~~  ~~SMSs.~~ that either don’t support audit queries or those     that didn’t successfully respond to the audit queries. | | | Func Backward Compatible: Yes  Update the GDMO. | None | None / None | |
| NANC 452 | | Verizon Wireless  11/20/12 | **Ethernet Connectivity to the NPAC**  **Business Need:**  Refer to separate document. |  |  | Func Backward Compatible: Yes  **Jan ’13 LNPAWG,** discussion**:**  A walk-thru of the proposed solution took place. The group accepted the change order.  **Mar ’13 LNPAWG,** discussion**:**  A walk-thru of the Ethernet Private Line Connectivity powerpoint presentation took place. The group agreed to forward the change order to the NAPM LLC, to request an SOW from Neustar. | TBD | TBD | |
| NANC 455 | | LNPA WG  5/08/13 | **Update SP Type and SV Type for FCC VoIP Numbering Trial**  **Business Need:**  **Refer to separate document.** |  |  | Func Backward Compatible: Yes  May ’13 LNPAWG, discussion:  With the upcoming VoIP Numbering Trial, the definition of VoIP providers as it relates to SP Type and SV Type is changing. Agreement was reached on the change in definition.  Jul ’13 LNPAWG, discussion:  A walk-thru of the proposed changes in the GDMO and ASN.1 took place, and the group accepted the change order. Details will be added to the document and it will be discussed in the Sep meeting.  Sep ’13 LNPAWG, discussion:  The updates were accepted. The new GDMO and ASN.1 will be added to R3.4.6 | TBD | TBD | |
| NANC 456 | | LNPA WG  7/09/13 | **Elimination of Five-Day First-Port Waiting Period**  **Business Need:**  **Refer to separate document.** |  |  | Func Backward Compatible: Yes  Jul ’13 LNPAWG, discussion:  As a follow-on to the discussion from the May ’13 meeting, a parameter change will be made in the upcoming maintenance window to change the value from 5 days down to one day. However, Number Pool Block behavior is slightly different and will require a software modification which will be implemented in R3.4.6. | TBD | N/A / N/A | |

# Release 4.0.0

| **Release 4.0.0 Implemented/Closed Change Orders** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | **Level of Effort** | | |
|  | |  |  |  |  |  | **NPAC** | **LSMS SOA** | |
|  | |  |  | |  | | | | |
|  | |  |  |  |  |  |  |  | |

# Closed/No Action

With Rev 30 of the Implemented Change Order document the Closed/No Action and Deleted categories are merged.

| **Closed/No Action Change Orders** | | | | | |
| --- | --- | --- | --- | --- | --- |
| **Chg Order #** | | **Orig. / Date** | **Description** | **Priority** | **Category** | **Final Resolution** | |
| ILL 3 | | MCI  10/15/96 | Enhancements to Screening of NPA-NXX Broadcasts  This feature would enhance the requirements for management of NPA-NXX filters and add support for NPA and NPA-NXX range filtering. | High | NPAC SMS Functionality / FRS / GDMO / ASN.1 | NANC 120 and NANC 167 have been combined into this change order.  Sep LNPAWG (Seattle). This change order was discussed by those in attendance. It was agreed that this functionality is no longer needed, and should be moved to Cancel-Pending. | |
| ILL 5 | | AT&T 10/15/96 | **Round-Robin Broadcasts Across LSMS Associations**  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.)  This change order applies to LSMS only. | Medium Low | FRS, IIS | Func Backwards Compatible: NO  This feature may already be implemented in the Lockheed Martin developed NPAC SMS.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  June 06 LNPWG (Boston), moved to cancel-pending. | |
| ILL 8 | | Lockheed Martin Team / 10/17/96 | Portability Areas  Establishment of State Portability Areas. | Low | NPAC SMS functionality | Detailed requirements have been developed.  Related to ILL 9 and ILL 10.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 9 | | Lockheed Martin Team / 10/17/96 | Portability Area Specific Tunables Establishment of portability area Tunable Parameters to allow timing and feature functionality to vary by portability area within a Regional NPAC to satisfy potential regulatory differences. | Low | NPAC SMS functionality | Detailed requirements have been developed.  Related to ILL 8.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 10 | | Lockheed Martin Team / 10/17/96 | Billing Enhancements  Performance of Cost Reapportionment and billing on a portability area basis to allow for different cost recovery methods employed or mandated by regulatory agencies, if applicable. | Low | NPAC SMS functionality | Detailed requirements have been developed.  Related to ILL 8.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 11 | | Lockheed Martin Team / 10/17/96 | Portability Area Utilities, Screen, and Report Enhancements  Provision of screens and reports on Portability Area basis. In addition to the Provision of Administrative utilities, screens, and reports to establish and maintain Portability Area to NPA-NXX and NPA-NXX to service provider Local SMS download association linkages. | Medium | NPAC SMS functionality / potential IIS change | This feature has been targeted for Release 2. Detailed requirements have been developed.  This change order has been closed no action. Requirements from this change order have been merged into change orders ILL 8, ILL9, and ILL 10. | |
| ILL 17 | | Ameritech 10/15/96 | Report Size Warning  A request was made to warn the user of the NPAC Operational GUI of the size of a report before its creation to prevent accidental creation of large reports. | Medium | NPAC SMS report functionality | A report size warning would be displayed to the user of the NPAC SOA Low-tech or NPAC Administrative Interface before the report is created in number of pages. The user would then be given the option to continue or cancel. If the user chooses to cancel then they should be returned to the report generation screen and be allowed to modify the report options or exit.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 58 | | Ameritech 10/29/96 | Single Audit Report Modification  For each discrepancy listed in the single audit report the service provider serving the TN should be specified in addition to the service provider who has a discrepancy for that TN.  A service provider to insure that audits requested by their personnel are only run on TN’s owned by that service provider could use this information. | Low | FRS/IIS | Update FRS requirement R8-21.2 as follows:  R8-21.2 Audit Report Contents  NPAC SMS shall generate an audit report containing the following information:   1. Audit request parameters, which identified the scope of the audit. 2. Date and Time of Audit. 3. Progress indication. 4. Service Provider network, which contains database conflict.   A difference indicator which indicates one of the following:   1. Mismatch between the NPAC SMS and local SMS 2. Record missing in local SMS 3. An audit failure 4. No discrepancies found   would be modified to add a bullet as follows:   1. Identification of SP owning the TN for which the discrepancy was found.   Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 65 | | Ameritech / 11/08/96 | Network Level Audit  The NPAC SMS should provide the capability to have audit processing down to the network element level. This would require the NPAC-LSMS interface to support functionality including asynchronous responses from the LSMS for audit processing down to the SCP level. | Pending DELETE as of 8/22/97 | IIS | This feature has been requested for Release 4. Detailed requirements need to be developed.  Withdrawn by originator. | |
| ILL 66 | | Ameritech / 11/08/96 | Network Level Activation Capability  The NPAC SMS should provide the capability to process activate messages down to the network element level. This would require the NPAC-LSMS interface to support asynchronous responses from the LSMS for activation responses to the SCP level. | Pending DELETE as of 8/22/97 | IIS | This feature has been requested for Release 4. Detailed requirements need to be developed.  Withdrawn by originator. | |
| ILL 67 | | Ameritech 11/08/96 | DPC Validation  The NPAC SMS should have a DPC table which would validate valid DPC data for each service provider. This validation would be performed by the NPAC SMS on any subscription version transactions. This enhancement would support the Service Providers' abilities to maintain  network reliability. Current design will allow any DPC data to broadcast throughout the entire serving area's networks. If invalid data were to be broadcast this would be a difficult to troubleshoot and identify the source of trouble. | Pending DELETE as of 1/6/98 | FRS/IIS | Moved to pending delete by originator. | |
| ILL 76 | | Forum Meeting 11/19/96 | Portability Area Indicator for Service Providers  Tagging of Service Providers by portability area has been requested for support of Release 2 functionality. | Medium | NPAC SMS functionality / IIS | This feature has been targeted for Release 2. Detailed requirements have been developed.  This change order was closed no action in the 4/14 NANC T&O task force meeting in Chicago. | |
| ILL 77 | | Forum Meeting 11/19/96 | Modification of NPA-NXX effective date  A requests was made to allow the modification of the NPA-NXX effective date over the interface. This includes the ability to M-SET to the NPAC SMS from the Local SMS and SOA interface as well as the capability to M-SET the value from the NPAC SMS to the Local SMS. Existing pending versions with a due date less than the new effective date would have to be handled to prevent the due date from being less than the effective date. | Pending DELETE as of 8/8/97 | IIS, FRS | This change order has been targeted for Release 3.  There was a move to delete this change due to the fact there is a manual work around and there seems to not be an straight forward approach to handling pending versions.  MOVE TO IMPLEMENTED LIST! | |
| ILL 98 | | Forum Meeting 11/19/96 | Limit of Mass Update Range  Requirement RR3-4 should be created that is titled “NPAC SMS mass change update range limit” and states “NPAC SMS shall limit the range of Subscription Versions affected by mass changes to one NPA-NXX.”. This will help prevent operational errors and limit scopes of mass changes. | Pending DELETE as of 1/16/98 | FRS | This feature has been targeted for Release 3.  This change order has been closed due to the update to NANC 68. | |
| ILL 131 | | MCI  12/16/96 | Creation of old SV for Every Change  The NPAC SMS should create an old subscription version for each change made to an active TN subscription version, regardless of how that change is made. That is, even for events such as an NPA split, an old SV should be  created to preserve the SV containing the former NPA. Requirements should be added to the FRS to insure this is clear. | Pending DELETE as of 1/16/98 | FRS/IIS | This feature has been requested for Release 3. Detailed requirements have been developed.  This change has been implemented in Release 1. This change order was grouped into release 3 in error. | |
| ILL 134 | | WorldCom  1/8/97 | Do Not Allow Port for the New NPA-NXX Involved in an Split Prior to Permissive Dialing Window  It was requested that a check be put into the NPAC to insure that a pending port was not created for the new NPA-NXX involved in the split prior to the permissive dialing period. It was felt that setting the effective date of the new NPA-NXX to the same time as the permissive dialing period start was not enough of a safe guard. | Pending DELETE as of 8/22/97 | FRS | This feature has been requested for Release 4. Detailed requirements need to be developed.  Group felt that this functionality was unnecessary. Originator has been contacted. | |
| ILL 183 | | MCI  2/14/97 | Download of Service Provider Data ASN.1 Issue  The NetworkDataDownload ASN.1 definition is as follows:  NetworkDownloadData ::= SET OF SEQUENCE {  service-prov-data [0] SEQUENCE {  service-prov-id ServiceProvId,  service-prov-name ServiceProvName OPTIONAL  },  service-prov-npa-nxx-data [1]  NPA-NXX-DownloadData OPTIONAL,  service-prov-lrn-data [2] LRN-DownloadData OPTIONAL  }  NPA-NXX\_DownloadData and LRN-DownloadData both have download reason which basically specify whether to add, delete or modify instances, however, service\_prov\_data does not. There is no way to indicate that a serviceProvNetwork object has been deleted in a network data download. | Medium | IIS | It is proposed that since service provider deletion is not a frequent activity that addition of this functionality be added in a later release.  The ASN.1 would be modified as follows:  NetworkDownloadData ::= SET OF SEQUENCE {  service-prov-data [0] SEQUENCE {  service-prov-id ServiceProvId,  service-prov-name  ServiceProvName OPTIONAL,  *Service-prov-download-reason*  *DownloadReason*  },  service-prov-npa-nxx-data [1]  NPA-NXX-DownloadData  OPTIONAL,  Service-prov-lrn-data [2]  LRN-DownloadData OPTIONAL  }  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| ILL 187 | | 2/22/97  AT&T | NXX split handling for 6 digit  Currently there are no requirements or functionality in the NPAC SMS to address NPA-NXX splits, only NPA splits. This is needed for an NPA-NXX where the split requires TNs to be changed to a new NPA and a new NXX. Further investigation and requirements development needs to be done to support this functionality. | Hold | NPAC SMS | Backwards Compatible: NO  This feature has been requested for a future release. Detailed requirements need to be developed. This change has not been associated with a group.  Change order withdrawn by the originator.  This change order has been reopened and placed on hold due to issues raised in the Western Region.  Oct LNPAWG (KC), group votes to move to cancel-pending. | |
| NANC 43 | | MCI  3/20/97 | Report of SPs who initiated Audits for Another SP  It has been requested that a report be added to the NPAC SMS to list for any given Service Provider the Service Providers who initiated audits against them. This would be useful for example, if TCG wants to bill any Service Provider which initiated audits of TCG’s LSMS. The report that currently exists does the reverse. It lists the single provider showing all of the audits it requested of any one. | Pending DELETE as of 1/16/98 | FRS | This feature has been targeted for Release 3.  This change order has been closed due to the fact that Perot and Lockheed can create this report ad hoc upon request. | |
| NANC 44 | | World Com  3/24/97 | Effective Release Date Validation  The effective release date is on optional value that can be used in conjunction with a disconnect. This is the date the NPAC removes the subscription from the LSMSs. Without this date the NPAC doesn't do any data validation on the customer disconnect date but does an immediate broadcast to remove the subscription from the LSMSs. If a subscription is erroneously entered without this date a customer would be removed from the LSMSs in error. It has been decided that the NPAC will validate the effective release date to insure that it is greater than or equal to the disconnect date. If the effective release date is not greater than or equal to the disconnect date then the disconnect request will be rejected with an invalid attribute for the effective release date. If the effective release date is not specified it is assumed to be the date of the request. | High | FRS | Detailed requirements have been developed.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 45 | | NANC meeting 3/24/97 | Audit a list of Service Providers  The capability should be added to the audit functionality to audit a list of Service Providers. Currently the requirement (R8-3) states that audits are for all or one service provider. The IIS would have to be modified to reflect this change. | Pending DELETE as of 1/6/98 | FRS/IIS/ ASN.1 | Detailed requirements have been developed. This change order is associated to NANC 34 that allows for requests of audits by SPID. | |
| NANC 46 | | NANC meeting 3/24/97 | NPAC to NPAC  NPAC to NPAC exchange of information has been requested as a potential NPAC SMS enhancement. Currently this issue is being investigated and framed for the group. | Hold | FRS | This feature has been requested for a future release. Detailed requirements need to be developed. This change has not been associated with a group.  The working group is working on this from paragraph 22 2nd report and order (the order number is 97289). The report is now available.  This change order remains on hold due to the fact that it may be needed to support location portability.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 47 | | GTE  NANC meeting 3/24/97 | Time Zone  Handling of multiple time zones within an NPAC SMS has been requested as a potential NPAC SMS enhancement. Currently this issue was to be investigated and framed for the group. | Pending DELETE as of 1/6/98 | FRS/IIS | This functionality may be covered by ILL 9. | |
| NANC 49 | | GTE  3/26/97 | Multiple SP Contacts for a Contact Type The FRS 0.1 and associated GDMO / ASN.1 in the IIS 1.5 currently allows only a single entry for each Service Provider Contact Type. See Table 3.3 - NPAC Customer Contact Data Model in the FRS for additional information on the Service Provider Contact Type.  The operational impact of this is that the NPAC personnel are only allowed to take requests and send responses, reports, etc., to personnel and locations contained in the Service Provider Data. This creates a problem for Service Providers with multiple Operations Centers. It has been propose that each Contact Type in the Service Provider Data be allowed to contain multiple entries. Suggested text for an additional FRS requirement to support multiple entries for each Contact Type is shown below:  R4-8.2 Multiple Entries for each Service Provider Data Contact Type  NPAC/SMS shall support multiple entries of all Contact Types in the Service Provider Data. | Delete Pending as of 10/10/97 | FRS / IIS / GDMO | This feature has been requested for a future release. Detailed requirements need to be developed. This change has not been associated with a group. | |
| NANC 79 | | Illuminet 4/18/97 | Multiple SPIDs per Service Provider LSMS  It has been requested that multiple Service Provider Ids be associated with a single service provider LSMS within an NPAC SMS. Further business requirements need to be developed.  This impacts an audit initiator because they may not be able to determine who is acting as the LSMS for a SPID in service bureau situations. | Pending DELETE as of 1/6/98 | FRS/IIS/ ASN.1/ GDMO | This change order is associated with NANC 48.  PacBell and Illuminet to review during delete pending time frame. | |
| NANC 80 | | NANC 4/18/97 | Audit indication of SP’s not Audited Due to a Download Filter  It has been requested that the audit results indicate the service providers not audited due to download filtering. This information would more accurately reflect to the audit initiator which LSMS’ were actually audited. | Pending DELETE as of 1/6/98 | FRS/IIS/ ASN.1/ GDMO | Audit changes have been viewed as a very low priority. | |
| NANC 81 | | NANC 4/18/97 | Audit Download Filtered LSMS  It has been requested that audits be allowed to audit LSMS’s that have download filtered NPA-NXX’s always or only upon request. Today audits are not performed on Local SMS’s for filtered NPA-NXX’s. | Pending DELETE as of 1/6/98 | FRS/IIS/ ASN.1/ GDMO | Audit changes have been viewed as a very low priority.  Repair would be to recognize the filter and not add the TN if a missing filtered Tn is found and to delete a filtered TN if found. | |
| NANC 82 | | NANC  4/25/97 | Mass Update SPID A request has been made to add SPID as an attribute to be modified for situations where service providers sell property or merge. | Pending DELETE as of 8/22/97 | FRS | This feature has been requested for a future release. This change has not been associated with a group.  Pending delete due to coverage in NANC 68. | |
| NANC 87 | | Lockheed Martin Team 4/30/97 | RR5-39 requirement modification 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 new SP should be able to view is old or active. No previously pending (never to be activated) version should be viewable. | Low | FRS | Func Backwards Compatible: NO  Jul 00 LNPA WG (Boston) The group decided to remove this change order from R5.0 consideration and move to cancel-pending.  NANC 292 superceded this change order.  Sept 00 LNPA WG meeting – move to Deleted. | |
| NANC 90 | | MCI  4/30/97 | SP Download Indicator Addition to IIS RR3-1 and RR3-2 refer to a download indicator that is a flag that is set to indicate whether or not a SP wants to received from the NPAC for NPA-NXX or LRN data on their LSMS. This download indicator is associated with a SP but is not available for modification/viewing over the CMIP interface. It has been requested that it be added in a future release. | Delete Pending as of 10/10/97 | IIS/ASN.1/  GDMO | This feature has been requested for a future release. This change has not been associated with a group. | |
| NANC 103B | | AT&T  5/23/97 | Increase in OSI Selector Size 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. | Low | IIS/ASN.1/  FRS | Func Backwards Compatible: NO  The selector would be defined as a range from 4…16 or 20.  June 00 LNPAWG meeting, group consensus (during R5 discussion) is to move to cancel-pending.  Sept 00 LNPA WG meeting – move to deleted. | |
| NANC 116 | | MCI  7/27/97 | Filter Handling Issue between IBM and DSET There is an incompatibility issue between the two TMN toolkits being used in LNP (DSET and IBM). When processing a filter the two toolkits implementations are the exact opposite of each other. The effect of this is that for given criteria one will return TRUE, while the other returns FALSE. According to the ITU specifications (ITU X.720/ISO10165-1) IBM is correct. | High | None | DSET will be evaluating and providing input back to the group as soon as possible. DSET has identified and made a patch available**.**  There were no documentation changes for the IIS or FRS as a result of this change order. | |
| NANC 117 | | AGCS 7/26/97 | Generalized Time Issue The format of YYYYMMDDMMHHSS.0Z is a valid GeneralizedTime. X.208 specifies 3 options for the GeneralizedTime for BER encoding:   1. local time 2. universal coordinated time (uses "Z" at end) 3. local time with a differential (uses "-xxxx").   The encoding is a "VisibleString" encoding, which does allow "0" to be represented. Also, note that the ".0" really means ".x", where x is the value of the tenth of a second. Normally, GeneralizedTime does not specify how long the visible string is. The reason is that the ".xxx" is based on how much resolution your system clock has, to the tenth of a second, microsecond, nanosecond, etc. For the IIS, this is restricted to 17 to indicate the time will be to a resolution of a tenth of a second. For LNP systems that only have resolution to the second, the last digit will be zero.  To be strictly correct, the IIS really should not specify exactly how long the string is, as long as it is at least 15 octets. Each system 1) on sending, should determine how it wants to represent time, and 2) on receiving, should be able to interpret any of the three formats of GeneralizedTime it receives and make the appropriate translation to interpret the digital signature using the 17 digits. | High | IIS | This change order will be evaluated by the group. This change order was closed no action. | |
| NANC 119 | | Lockheed Martin 6/27/97 | Additional Requirement to View State Portability Area  It has been requested that the following requirement be included for state portability areas in addition to the requirements to add, delete, and modify:  RR3-24 Viewing of a State Portability Area  NPAC SMS shall allow NPAC personnel to delete a state portability area supported by the NPAC SMS. | Low | FRS | This change order is related to change order ILL 8.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 120 | | Lockheed Martin 6/27/97 | Filter Deletion  If a filter is deleted that is for an NPA should the NPA-NXX filters that might have been added be deleted automatically. What behavior is desired? It may be that NPA-NXX filter where put in place before the NPA filter was deleted to now selectively down load NPA-NXX’s instead of all in the NPA. | High | FRS | This clarification would be documented as an Assumption in the FRS.  An assumption should be added to the FRS that reads:  Assumption - Filter Deletion  NPAC SMS shall upon deletion of a filter for a Service Provider not delete any other defined filters for that Service Provider.  This change order has been combined with ILL 3. Closed. | |
| NANC 121 | | AGCS  7/16/97 | lnpSpecificInfo attribute  It has been pointed out that lnpSpecificInfo is an orphan attribute (and an orphan parameter). Some toolkits optimizes out the code for this attribute because it is not bound to any managed object. It has been requested that the references be made explicit. | Pending DELETE as of 8/22/97 | IIS | This change order is currently ungrouped.  The group has decided not to implement changes for certain compiler implementations. Many vendors have to change the file to accommodate their OSI tool kits. | |
| NANC 122 | | AT&T  7/17/97 | Enhanced Key Expiration Strategy 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:   1. an abort from a service provider occurs on an active association. 2. a key change is desired.   Service Providers would expire their key when:   1. an abort from the NPAC occurs on an active association. 2. an accessDenied error message is returned. 3. a key change is desired.   This change request is related to the Release 1 change order NANC 112. | Low | **FRS/IIS** | Func Backwards Compatible: NO  The group is unsure of the need to change the key exchange strategy at this time.  June 00 LNPAWG meeting, group consensus (during R5 discussion) is to move to cancel-pending. The group will discuss the “key change interval” tunable (table C-5, current value and need to change) during the July meeting.  Sept 00 LNPA WG meeting – group agreed to move this change order to Deleted. Also, the group consensus was that the key exchange strategy did not need to be changed at this time. | |
| NANC 125 | | ESI / AT&T 7/25/97 | Intra Service Provider Port – Port to Original  Some confusion has occurred regarding support of porting to original in an intra-service provider port. The FRS in section 5.1.2.2.1.2 Subscription Version Creation - Intra-Service Provider Port states the following: “This section provides the Subscription Version Creation requirements for performing an Intra-Service Provider port of a TN. An Intra-Service Provider port of a TN is when a TN is ported to a new location within the current Service Provider network (i.e., the routing data is modified, but the Service Provider remains the same). A port to original port for an Intra-Service Provider port should be handled by a requesting user via submission of a Disconnect request to the NPAC SMS. Requirement R5-15.2 “Create “porting to original” Subscription Version - New Service Provider Input Data” states the following about the port to original flag: NPAC SMS shall require the following data from NPAC personnel or the new Service Provider upon Subscription Version creation for an Inter-Service Provider “porting to original” port: Porting to original – flag indicating whether or not this is a “porting to original” port. This flag must be set to “TRUE” for “porting to original” port. There is no mention of this field in the intra-service provider port section. | Pending DELETE as of 1/6/98 | FRS | Support of port to original porting for intra-service provider porting has been requested. This change has been targeted for release 3.  The group felt that the current process in place (use of disconnect) was sufficient.  Bellcore and AT&T to review during the delete pending timeframe. | |
| NANC 127 | | Nortel/Perot 8/5/97 | Use of Range Operations from the SOA  It has been identified that some service providers are not implementing range operations from the SOA.    There is no explicit requirement in the IIS for support of ranges. However, lack of support for ranges may be quite inadequate as it increases activities necessary for porting of large blocks. Non support of ranges from some service providers causes additional messages to other service providers. Hence, effecting everyone’s performance. It has been requested that support of range operations such as activates and creation on subscription versions be required. | Low | FRS | The requirement for range operations has been rejected by the group due to operational issues that may prevent use of a range for activation.    There were no documentation changes for the IIS or FRS as a result of this change order. | |
| NANC 128 | | 8/5/97AGCS | R7-111.2 Requirement Interpretation  There is a question about the behavior of the Perot NPAC in relation to requirement R7-111.2. There are two test cases involved. The first test case "52" is the invalidation of a key id in a list as per the requirement. The second test case "54" deals with invalidation of a list id. Perot has invalidated the test case "52" in favor of "54" which is believed to be not valid. | Medium | FRS | The originator due to discussions at the cross regional meeting has closed this change order. Test case 54 has been reworded to be a valid test case based on the FRS requirements.  There were no documentation changes for the IIS or FRS as a result of this change order. | |
| NANC 129 | | 8/5/97  AT&T | End User Location Type and Value Definition  In the NANC IIS V1.2 the following ASN.1 definitions are found:  EndUserLocationType ::= CHOICE {  value [0] NumberString(SIZE2)),  no-value-needed [1] NULL  }  EndUserLocationValue ::= CHOICE {  value [0] NumberString(SIZE(1..12)),  no-value-needed [1] NULL  }  However, in the FRS V1.2 the following is found in Table 3-5:  End User Location Type C(2)  End User Location Value C(12)  where "C" is defined as "Character or Alphanumeric Strings". | Hold | IIS - GDMO/ASN.1 | IIS should be changed to make these fields character. However, at this time since these fields are not being used this change order is on hold. For the interim change order NANC 155 will be used to sync the FRS with the IIS.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 132 | | MCI  8/5/97 | Update FRS Data Models Several issues found in testing that had to do with data fields - what constitutes valid data in all fields, both those that may or may not be required. In order that we do not continue to stumble across these things one at a time during testing or as new SPs come on board, it has been requested that the data models be updated. They should be updated to reflect what constitutes valid data for each field. | Pending Delete on 8/22/97 | FRS | Upon further review no changes to the data models could be identified by the CMA.  This change order will be left open for further review by the initiator.  Deleted by initiator. | |
| NANC 148 | | Bellcore  8/25/97 | LNPType in SV Object Creation Notification It has been requested that "LNP Type" be added to the subscription version object create notifications. | Medium | IIS/ASN.1/GDMO | This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 149 | | Nortel | Use of Time in the Due Date - Continued It has been determined that the Lockheed System uses the time if specified in the Due Date where the Perot system normalizes the time to 00:00:00.0 when the time is specified. It has been requested that the Lockheed implementation be changed to normalize the time.  The following IIS references to time would have to change: The Old and New Service Provider Due Dates would have the following GDMO sentence “If not specified, the time defaults to 00:00.00.” with “The time will be set to 00:00.0 regardless of what is specified.”. | Low | IIS | Lockheed will make this change in Release 2.  RE-OPENED: Due to the possible need of time of day support for porting to support wireless carriers (NANC 201), it has been suggested that implementation of this change order be removed from Release 2**.**  A request has been forwarded to the LLCs to remove this change order from release 2. The change order has been moved into the future release.  This has been moved to a 30 day pending delete (at T&O mtg, 6/17/98).  It was agreed that the NPAC does NOT need to normalize time, since the wireless providers may wish to send up a due date with a granularity that includes a specific time on a specific day. Implementing this change order would remove that capability in the NPAC. | |
| NANC 150 | | AGCS  8/27/97 | Subscription Version M-Delete to LSMS – Continued When a telephone number is being ported, the NPAC currently sends a request to the LSMS to create a new subscription version object. The LSMS is expected to search in its database to see if any existing subscription version object has the same telephone number. If such an object is found, the LSMS is expected to delete the existing object. It has been requested that an M-DELETE request be sent to the LSMS. | Delete Pending as of 10/10/97 | FRS/IIS | The current approach has been documented. The current strategy is in place due to the LSMS wanting to manage their own history. | |
| NANC 153 | | Bellcore 10/1/97 | Download file creation by SP for application of Filters  It has been requested that subscription version down load files used for disaster recovery be created by specification of SPID so that the SP’s filters can be applied. This would create a file only for all the NPA-NXXs the service provider is interested in. | Medium | FRS | The team has agreed to this functionality.  Sep LNPA-WG (Chicago), this is a duplicate of 246, and therefore, is being deleted. | |
| NANC 167 | | NANC 10/1/1997 | ILL 3 Clarification  A note is to be added to change order 3 to indicate that overlapping filters are allowed and that filters can not be modified. Filters can only be created and deleted. | Low | FRS | This clarification to ILL 3 has been combined with ILL 3. Closed. | |
| NANC 168 | | AGCS 10/18/97 | SOA Bulk Download FilesNPAC bulk data down load files are designed for LSMS. If a SOA needed them for re-sync purposes, they could only resync active subscription versions. These files should be modified to include the different SV states if it is being created for SOA resynchronization. |  | FRS | AGCS to review.  Reopened: AGCS still wants the change order open. On a SOA, if you wanted to re-sync your database or initialize you database, you would need subscriptions in pending, conflict, cancel-pending, active, and disconnect pending.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 177 | | Tekelec 11/25/97 | Clarification to ILL3 It has been noted that the wording for Assumption 3 is unclear and may not be the behavior that is desired. The assumption states “NPAC SMS in the case of overlapping filters will use the more restrictive filter.” | Low | FRS | It has been suggested that the wording be changed as follows: “NPAC SMS in the case of overlapping filters will use the superset of the filter defined.”  The group has accepted this change. Submission to the LLCs has occurred.  This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 180 | | Perot Team  12/7/1997 | Key Exchange Security Strengthening  Proposal A:  The Key Interval will be turned off on the NPAC software and each SP must change public keys every 3 months (complete the key exchange process with new listids with the NPAC).  OR  Proposal B:  The SP’s software and the NPAC software will change the Interval every 7 days. The SP software will need to be enhanced. This is full-protected asymmetric encryption. | Hold |  | Modification of the M&P will be worked in other arenas. There has been a request to automate the functionality requested in this change order. This change order is being moved to the hold list until needs are identified by other industry teams.  Reference table 11-5 for the key change interval tunable.  Perot has provided a write up that will be discussed at the NANC T&O meeting in Dallas on February 12th and 13th.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 181 | | AT&T 12/8/1997 | Tag Value Addition to the ASN.1 for NANC 146 It has been suggested that tag values be added to the ASN.1 for NANC 146 as follow:  AddressInformation ::= CHOICE {  ContactInfo [0] SEQUENCE {  line1 GraphicString40,  line2 GraphicString40,  city GraphicString20,  state GraphicString(SIZE(2)),  zip GraphicString(SIZE(9)),  province GraphicString(SIZE(2)) OPTIONAL,  country GraphicString20,  contactPhone PhoneNumber,  contact GraphicString40, contactFax PhoneNumber OPTIONAL,  contactPager PhoneNumber OPTIONAL,  ContactPagerPin DigitString(SIZE(1...10)) OPTIONAL,  contactE-mail GraphicString60 OPTIONAL  },  no-value [1] NULL  } | Medium | IIS | The group has accepted this change. Submission to the LLC’s has occurred.  This is an "OLD" Release 2.0 change order, that has been moved into the "Accepted" category, awaiting prioritization.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 183 | | NANC T&O  1/5/1998 | PDU Size Maximum and currently supported PDU sizes needs to be reviewed by the NANC T&O team to insure that large PDU’s that can be created today will not cause problems in either NPAC SMS, LSMS, or SOA systems. If PDU size is an issue it should be documented in the IIS. | Medium High | IIS | Linked to NANC 184 and ILL 79.  It was noted that RFC1006 in one vendor’s implementation support a minimum size of 128 bytes and a maximum of 65,536 bytes. The factory default in the case of this product is 2048 bytes.  Feedback to date has indicated that most CMIP products have no limits. However, the OSI stacks have limits ranging from 10K to 64K. Limits can be at presentation and transport layers. HP has been called for questions as to which layer of the protocol stack that size becomes an issue transport or presentation. It has been indicated that there is no limit in the Marben products at any layer of the stack.  The PDU sizes have been provided reviewed. Updates are being made to the PDU sizing matrix to reflect future change orders ILL 79 and NANC 179 as well as overhead bytes. Right now the recovery requests and the LSMS create results notifications are the items that are of concern. These network data download may not be as large of a concern due to the fact that large amounts of network data would not be entered in 1.0 that would cause a large PDU. For SV recovery smaller recovery time windows could be used to reduce the size of the data returned. We need to consider if we need linked replies in the future for these messages that could be an issue.  NANC 186 and 187 are being updated to reflect the outcome of the analysis done for this change order. This change order is closed no action. | |
| NANC 186 | | AT&T  1/7/98 | Linked Notification Recovery Reply  It has been requested that the notification recovery action reply be a linked reply. This would be done to control the size of the response sent back to the Local SMS systems. | Medium | IIS | Related to ILL 79, NANC 183, and NANC 184. As a work around to the large PDU size in the interim. It is suggested that service providers that can not handle large PDUs should request notification recovery in smaller time intervals.  Sep LNPA-WG (Chicago), the group decided to merge this change order into NANC 187, then delete this one. | |
| NANC 193 | | NANC T&O 1/23/1998 | **TN Processing During NPAC SMS NPA Split Processing**  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 above requirements do not reflect the current Lockheed NPAC SMS implementation. Dec ’05 comments: move to cancel-pending. | Medium High | FRS | Pure Backwards Compatible: YES  Lockheed in release 1.2 currently holds requests until the NPA Split processing completes (regardless of the NPA or NPA-NXX). Nortel/Perot rejects the requests during NPA split processing. It was not clear if errors were for all requests or just requests related to the NPA or NPA-NXX being split.  Desired behavior would be to have no errors occur. Requests put on hold or queued would only be those related to NPA-NXXs involved in the NPA split being processed.  Lockheed in Release 1.3 will perform NPA- NXX locking.  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?  (continued) | |
| NANC 193  (con't) | | Proposed Solution (continued):  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 splits 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 active is received by the NPAC SMS before PDP it will be rejected. If the old SP 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.  The matrix was finalized on the 5/22 T&O call.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  **12/05** – Moved to Cancel-Pending per LNPAWG discussion.  3/06 – Deleted following March LNPAWG meeting | | | | | |
| NANC 195 | | Tekelec  1/28/1998 | CMIP Object Class Filter Support  It has been requested that CMIP object class filter support be supported by NPAC SMS vendors over the CMIP interface. |  | IIS | Lockheed does not support object class filters.  This type of filter is being used to perform a query based on the TN (NPA-NXX,LRN, SPID) value which is useful when a user wants to see an object at the NPAC that is not in the LSMS database. If the LSMS does not have the object, we do not know the version ID so cannot perform a query based on ID. If the service provider is trying to track down a problem, it is useful to be able to perform this type of query to determine if the NPAC has data that the LSMS does not.  Query example: I have an LSMS that does not have the serviceProvNPA-NXX in my system. I want to know IF I should have it. My ServiceProvId = 1717. I want to launch a query using, baseManagedObject : ServiceProvNetwork baseManagedObjectInstance: (dn), LnpSMS-Name="1717-Northeast Regional NPAC SMS" , ServiceProvNetwork=1717  AccessControl = n/a, Synchronization = best effort, scope = 1 (go down 1 level),  filter = OR item EQUALITY, attribute Id = ServiceProvNPA-NXX-value, attributeValue = 919460.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 198 | | Bell Atlantic 2/23/98  &  Sprint  8/10/98 | Unique Cancellation Notifications It has been requested that the NPAC generate a unique cancellation notification in the case of a subscription version being cancelled.  Currently the NPAC sends the same informational notification to designate a cancel status, regardless of the circumstances leading to the cancellation. There is no way to differentiate between a cancellation that requires subsequent action (i.e. NEWSP did not send a corresponding subscription) and a cancellation requiring no further action (i.e. self-initiated Cancel). The result is, all cancel notifications must be reviewed to determine if any action is required.  8/10/98 -- Sprint has requested that the NPAC set the cause code to indicate that the NPAC automatically cancelled this SV because the New SP didn’t send up a matching CREATE (within the 18 hour window).  This change order is related to NANC 240. | Med / High | FRS/IIS | Func Backwards Compatible: NO  The existing requirement should be enhanced to include the status change cause code when setting to cancel for this reason (new text in *larger print italics*).  R5-23.4 New Service Provider Fails to Authorize Transfer of Service  NPAC SMS shall set the Subscription Version status to cancel *and the status change cause code to a value that equates to "NPAC SMS Automatic Cancellation Missing New SP Create"* when the Final Concurrence Window tunable parameter expires and a new Service Provider has not sent authorization for the transfer of service.  Sep LNPAWG (Seattle), the group agrees that this change order should state that the cause code should be sent for this situation.  All SPs will discuss internally if they want a specific cause code (listed above) for this case, or if one of the existing cause codes (as listed in the SV data model), "1 - NPAC SMS Automatic Cancellation" is sufficient.  Oct LNPAWG (Kansas City), the group has decided to accept the change order, and would like the new functionality in *larger print italics* that is listed in the proposed new text for R5-23.4 (the existing cause code was NOT deemed sufficient).  This has been moved into the "Accepted" category, awaiting prioritization.  May 00 LNPAWG (Atlanta), group consensus is to move to cancel-pending. | |
| NANC 199 | | AGCS 2/28/98 | Attribute Value Change Notifications for Mass Update  When a Mass Update is performed it has been requested that the SOAs receive a notification of what changed. Specifically if LRN or GTT data changed the SOA should be notified with an attribute value change notification. |  | FRS/IIS | A concern was raised that this would cause a lot of message traffic that may affect performance.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 200 | | AGCS 2/28/1998 | **Notification of NPA Splits**  It has been requested that to facilitate synchronization during NPA split, the NPAC via the mechanized interface should notify the SOA and LSMSs. The preferred method would be to have a new managed object that contains all split information. It would still be up to the respective system to perform the splits, but all systems would be in sync. A second alternative would be to have the NPAC issue a notification that states the NPAC is start/ending split processing. | High | FRS, IIS, GDMO, ASN.1 | Func Backwards Compatible: NO  This change order is related to change order NANC 192 that proposes getting the split information from the LERG.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  (continued)  **12/05** – Moved to Cancel-Pending per LNPAWG discussion.  3/06 – moved to Deleted after March LNPAWG meeting | |
| NANC 204 | | NANC T&O 3/2/1998 | Inter Service Provider Communication Process Subscriber Name, Address, City, State, Zip have been requested as information to be exchanged between old and new SP’s when creating a pending port. This information originates from the new service provider only. This data would not remain in the NPAC SMS after the port has been activated or cancelled. Data would be needed in the T1 and T2 notifications. The object creation notification (initial creation notification) will also need the information added. Other notifications need to be analyzed. It is believed at this time that the address information definition in the NANC IIS for the NPAC SMS customer contact data is sufficient for wireless use. The current definition is as follows:  Name – 40 char  Address Line 1 – 40 char  Address Line 2 – 40 char  City – 20 char  State – 2 char  Zip – 9 digits  Country – 20 char  Province – 2 char | Low |  | Func Backwards Compatible: NO  This change order is considered to be a Phase 2 business requirement.  It was suggested that a front-end solution be considered where new FOC/LSR type information is sent in messages prior to the create process. The group is investigating other options.  A question was raised as to whether social security number and tax ids were also needed in this information.  See wireless change order detail file.  This has been moved into the "Accepted" category, awaiting prioritization.  May 00 LNPAWG (Atlanta), group consensus is to move to cancel-pending. | |
| NANC 205 | | NANC T&O 3/2/1998 | Wireless Porting before Due DateWireless Service providers in wireless to wireless porting wish to be able to port once concurrence is received from both Old in New Service Providers. This will allow the port to occur prior to the due date and time. | Delete Pending 4-17-1998 | FRS/IIS | Support of a new LNP Type was suggested as a solution to the need raised in this change order. The LNP Type could then be used by the NPAC for the edit on when an activate could occur. Today if both SP’s concur and the due date specified on the SV is today then the activate could occur immediately. This may eliminate the need for change order NANC 201 or 149.  See wireless change order detail file.  This change order has been withdrawal by the wireless wire line task force. Delete Pending 4/15/1998. | |
| NANC 208 | | NANC T&O 3/19/1998 | CMIP Filtering of Notifications It has been suggested that support of CMIP filters per the standards be implemented in the NPAC SMS so that SOA and LSMS systems could filter the notifications they did not want to receive | Delete Pending 4-17-1998 | IIS | Lockheed did not implement this functionality. It would be a large work effort to implement this functionality on the NPAC SMS. SOA and LSMS vendors would also have to change their software to support the CMIP filters.  It was requested that SOA/LSMS vendors review this change order to determine if this functionality is desirable.  SOA and LSMS vendors found this functionality to not be needed. The change order is delete pending 4/3/1998. | |
| NANC 210 | | Lockheed Martin Team 3/30/1998 | IIS Flow 6.5.1.12 ModificationIIS Flow 6.5.1.12 "Subscription Version Port to Original: Success", states in b., e., and g. that the status is set to "Sending" when an activate is received for a Port to Original, and that status sent to the old and new SP. The NPAC actually sends a status of "Disconnect-Pending". This status onlylasts for a few seconds but does result in a notification to the old and new SP. This has not been an issue for any of the SPs during certification but is an inconsistency between the IIS and the NPAC. | Low | IIS | Submitter is reviewing this change order for accuracy. This change order may be withdrawn.  Closed no action by submitter 4/14/1998. | |
| NANC 212 | | BellSouth 4/21/1998 | Activation Timestamp in M-GET FilterIIS flow 6.2.1 in step g states that the NPAC SMS to request data for an audit from the Local SMS can use a scoped filtered M-GET. However, the step in the IIS flow does not state what attributes will be used in the filter. There is also no indication in the GDMO that the activation timestamp and TN can be used in the M-GET filter. The Lockheed Martin NPAC SMS uses the activation timestamp in the filter sent to the Local SMS. It has been requested that the NPAC SMS not send the activation timestamp in the filter but rather used request criteria of activation timestamp (R8-9) to determine which TN’s to M-GET from the LSMS. | Medium | FRS/IIS/GDMO | BellSouth has interpreted R8-9 differently form the current NPAC SMS implementation, and has requested that the NPAC SMS be changed to NOT send the Activation Timestamp in an M-GET filter. This would require the NPAC SMS to determine the TNs, based on the activation timestamp, that should be requested to the LSMS.  Service Providers need to determine if this change would impact their current implementation of the LSMS.  Discussed at length during 7/8/98 telecon. Current resolution is that numerous SPs propose that this change order NOT be implemented. The reason is if the NPAC were changed to “pre-filter” the TNs in the M-GET to the LSMS, extraneous data in the LSMS would not get cleaned up.  For example, an LSMS contains an erroneous TN that is not in the NPAC. If this was “pre-filtered” by the NPAC, this would NOT get identified (and not get deleted from the LSMS).  Moved to Pending Delete, per BST (Ron Steen), on 7/15/98. | |
| NANC 213 | | BellSouth 4/21/1998 | Subscription Version Download File Sorting  Subscription data in download files created by the Lockheed Martin NPAC SMS is sorted by version id. It has been requested that the subscription version data in the download file be sorted by TN. | Low | FRS | Closed no action by originator. This is current NPAC SMS behavior. | |
| NANC 219 | | AT&T  6/5/1998 | **NPAC Monitoring of SOA/LSMS Associations**  It has been requested that NPAC Monitoring of SOA and LSMS associations be put into the NPAC SMS at the application (CMIP) layer. The approach suggested by the requestor would be to alarm whenever aborts are received or sent by the NPAC. 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.  From this point forward, this change order will deal with the alarm abort option. The heartbeat abort option is NANC 299. | High | FRS | Pure Backwards Compatible: YES  Sep LNPAWG (Seattle), discussed various options for working the problem of dropped associations (i.e., causes partial failures for the new SP trying to activate).  Options include,  1.) sending a notification to all SPs that "an SP is currently not associated", then another notifications once it is back up, "all SPs associated".  2.) stopping an activation request, because an association is down.  3.) sending a notification to the New SP when an activate is received, that an association is down, "do you still want to activate?".  NEXT STEP: all SPs should consider issues and potential options for activates during a missing association that will cause a partial failure.  Oct LNPAWG (Kansas City), the conversation migrated away from the three options discussed in Seattle, and back to the NPAC proactively monitoring the association. This would require the NPAC to provide an attendant notification that a Service Provider is down, then notifying them of their missing association.  NPAC LOE: Low (alarm abort), Med (heartbeat abort),  High (ops costs for all options)  SOA/LSMS LOE: N/A/N/A  June 06 LNPAWG moved to Cancel-Pending | |
| NANC 291 (con’t) | | Proposed Solution (continued):  So, anytime the NPAC receives an abort from a Service Provider, an NPAC alarm should be triggered, and an M&P should kick in where NPAC personnel notify the downed SP.  This has been moved into the "Accepted" category, awaiting prioritization.  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order. | | | | | |
| NANC 223 | | Sprint  7/6/98 | Suppress “snapback” notification to Donor SOA on LISP disconnect  On an intra-SP port (LNP Type = LISP), a disconnect is sent to the NPAC to return the TN to the original switch. The disconnect causes a “snapback” notification (subscriptionVersionDonorSP-Customer DisconnectDate) to be sent to the Donor SOA. However, this implies that the TN is available for re-assignment, when in fact, the customer may still be in-service.  Therefore, a request has been made to have the NPAC suppress the “snapback” notification to the Donor SOA on an LISP disconnect. |  | IIS/FRS | Discussed during 7/16/98 face-to-face T&O meeting. It was determined that the problem stems from the in-ability to send a Port-To-Original (PTO) port on an intra-SP port (LNP Type = LISP).  The business scenario is that a customer is “home” to switch A, then moves down the street and is “home” to switch B (still in same rate center, so was LISP-ed to switch B), then moves back up the street (and needs to be re “home” to switch A, but is still a working number). In this scenario, the SP would NOT send a disconnect, because the number was still working, and would instead send an LISP PTO activate.  NEXT STEP: all SPs and vendors need to look at this internally, and be prepared to discuss during next telecon.  August T&O (Detroit). The group consensus was to close this change order (since the suppression of the "snapback" notification will violate certain business scenarios) and open a new change order (to capture the new functionality, which is to allow a PTO with a LISP). The new "sister" change order is NANC 230. | |
| NANC 225 | | NextLink  7/7/98 | Ability to modify a subscription from cancel pending to pending  If an Old SP cancels a pending Subscription Version, the status goes to Cancel Pending, and currently remains in that state for 18 hours (cancellation T1 and cancellation T2 timers are each set to 9 business hours).  If a New SP doesn’t acknowledge the cancellation, they must wait for the 18 hours to run it’s course before the SV goes into Conflict, where they could potentially put it back into Pending, then send up an activate request.  The request of this change order is to allow the New SP to modify an SV from Cancel Pending to Pending, which would allow a subsequent activation request to be sent to the NPAC. |  | IIS/FRS | Discussed during 7/16/98 face-to-face T&O meeting. The group consensus is to move this change order to Pending Delete, and talk about this problem in the “problem resolution” discussion (i.e., don't want to change the flow of NPAC functionality and processing).  The CMA has an action item to look at the edits for clarification of the six hour window, and see if it is still valid for the “cancel pending” to “conflict” scenario (NANC LNP Operation Flows, flow 6, cancellation conflict, step 8).  CMA ANSWER: 8/3/98, yes, the six hour window is still valid in the case of cancel pending to conflict, even though the SV may have already gone through an eighteen hour window (T1 and T2) for the conflict. | |
| NANC 226 | | Tekelec  8/6/98 | definitions for the value of the lsmsFilterNPA-NXXValue attribute  The current ASN.1 definitions for the value of the lsmsFilterNPA-NXXValue attribute only allow for either one or all of the instances to be retrieved by using a Get request with scope and filter.  A much simpler and just as flexible way to specify NPA-NXX filters would be as follows:  LsmsFilterValue ::= CHOICE {  npa-nxx-flter [0] NPA-NXX-Filter  receive-all-data [1] NULL  }  NPA-NXX-Filter ::= SEQUENCE {  npa-value NPA,  start-nxx-value NXX,  stop-nxx-value NXX  }  This allows a single ASN.1 type to specify NPA, NPA-NXX and NPA-NXX-Range filters. Given that:  919 000 999 - is equivalent to a NPA filter of 919  919 361 361 - is equivalent to a NPA-NXX filter of 919 361  919 200 299 - is equivalent to a NPA-NXX -Range filter (that cannot cross NPA boundaries) |  | IIS/FRS | This change order is a different way of representing the data for Filters, and should be analyzed in conjunction with any Discussions of ILL 3.  Sep LNPAWG (Seattle). This change order should maintain the same status as ILL-3, and should be moved to the "Pending-Delete" List. | |
| NANC 229 | | BellSouth  8/11/98 | Request for "Assurance of the Sequence of Transaction Processing".  A request has been proposed to investigate the issue surrounding the "assurance of the sequence of transaction processing on the same object" within the NPAC SMS. |  | IIS | Discussed during 8/12/98 face-to-face T&O meeting (Detroit).  The current NPAC functionality is processing in Confirmed Mode over the stack, and the NPAC will process transactions in the order that they are received, but not necessarily completed. Individual SPs need to ensure sequencing by NOT sending up a second transaction (for the same object) until the response has be received for the first transaction.  Other SPs and vendors did NOT support a change to the NPAC for this sequencing assurance.  The group agreed that this change order should be closed, and a new change order should be opened to investigate the documentation updates that would clear up the responsibility issue. The new "sister" change order is NANC 231. | |
| NANC 232 | | MetroNet 8/14/98 | **Web Site for First Port Notifications**  Currently all SOAs and LSMSs receive "first port" notifications. A request has been submitted to provide this information on the NPAC Web Site.  Sep LNPAWG (Seattle). This change order was introduced by MetroNet as a means for LTI users to obtain "first port" notifications.  The current process does NOT send this information to the LTI user (unlike SPs that have a CMIP-based SOA), but requires the LTI user to "query" the NPAC for notifications contained in the NPAC notification log (for that specific SP). Currently, this log contains the most recent 25 notifications for that SP. The user may also generate an NPAC report of all notifications for that SP.  The desire is to have these "first port" notifications on the web, similar to the NPA-NXX openings that are on the web today. | High | FRS | Pure Backwards Compatible: YES  Sep LNPAWG (Seattle). This change order was discussed by those in attendance. It was agreed that this change order was acceptable, and should be moved to the "Future Release CLOSED" List, and await prioritization from the group.  NOTE: This change order is similar to the existing requirements, R3-10 and R3-11 (Web bulletin board updates of NPA-NXXs and LRNs).  Refer to R4 Change Orders for current proposed resolution.  **01/02/02** – NPAC R4.0 as submitted to the LLC in 2000 is not going forward. This change order has been moved back into the “accepted” section of this document.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  NPAC LOE: LOW, SOA/LSMS LOE: N/A  June 06 LNPAWG moved to Cancel-Pending. | |
| NANC 235 | | ESI  9/3/98 | Modification of NANC 204 for GDMO Change  A new ASN.1 structure was added which affects the GDMO attribute definition for the nameAndAddress structure.  This should replace the use of the existing AddressInformation which contained additional information that is not being used on the subscription version attribute.  GDMO Change (ASN.1 used to be AddressInformation):  -- ??.0 LNP Subscription Version Subscriber name and address  subscriptionNameAndAddress ATTRIBUTE  WITH ATTRIBUTE SYNTAX LNP-ASN1.NameAndAddressInformation;  MATCHES FOR EQUALITY;  BEHAVIOUR subscriptionNameAndAddressBehavior;  REGISTERED AS {LNP-OIDS.lnp-attribute ??};  subscriptionNameAndAddressBehavior BEHAVIOUR  DEFINED AS !  This attribute is used to specify the subscriber name  and Address information for inter-service provider  communication.  !;  ASN.1 Addition:  NameAndAddressInformation ::= SEQUENCE {  name GraphicString40,  line1 GraphicString40,  line2 GraphicString40,  city GraphicString20,  state GraphicString(SIZE(2)),  zip GraphicString(SIZE(9)),  province GraphicString(SIZE(2)) OPTIONAL,  country GraphicString20  } | Low |  | Func Backwards Compatible: NO  Oct LNPAWG (Kansas City), this has been moved into the "Accepted" category, awaiting prioritization.  It must be grouped with NANC 204.  May 00 LNPAWG (Atlanta), group consensus is to move to cancel-pending. | |
| NANC 245 | | AT&T  11/12/98 | Subsequent Ports of Active SV with a Failed SP List  While performing 1.4 testing, AT&T ran into a situation of a subsequent port (from a currently active Subscription Version with LNP Type of POOL), with a Failed SP List. The Illinois Pooling (NPAC 1.4) and existing NPAC functionality (FRS 1.10) allow this subsequent port to occur.  Should this be allowed under all conditions?  Arguments **for** allowing the subsequent port:   * The NPAC should NOT restrict a customer’s ability to port their number to another provider, just because an SP didn’t successfully process the modify active request. * Even if this data was re-sent or re-synced at a later time after the subsequent port, the previous SV would have migrated to “Old”, and the new/current SV would not be affected.   (continued) |  | FRS | Nov LNPAWG (Dallas), John will provide a separate write-up for Service Providers to take back internally and discuss.  Dec LNPAWG (Atlanta), discussed separate write-up.  This also applies for Old with a Failed SP List, so it really is just for Failed SP List, and not tied to any specific status. We should NOT allow any subsequent activity (other than resend or resync) as long as Failed SP List. Also, no network data mods of NPA-NXX or LRN data for this one.  MCI, still leave on open list. Discuss next time.  Jan LNPAWG (Atlanta), still want to allow the subsequent port (even if have Failed List). Want to keep the two bullet points of NPAC consideration, but put into new change order.  So, this change order is closed out. Refer to “sister” change order, NANC 254 for new NPAC requirements on Failed SP List of subsequent ports.  (continued) | |
| NANC 245 (con’t) | | Continued | Arguments **against** allowing the subsequent port:   * One or more SP’s networks are out of sync, and the NPAC should clean up the failed SP List before allowing more activity on the TN(s). * The NPAC will need to add additional functionality to clean up the Failed SP List for the currently active SV, when a subsequent Activate is sent by the New SP. This is needed to prevent the re-send or re-sync from being sent to the discrepant SP. * If the Failed SP List is not cleaned up, then a re-send or re-sync creates meaningless traffic over the NPAC SMS to Local SMS Interface, for the modify active request (since this SV has migrated to “Old”).   NPAC SMS considerations:   * If the subsequent port is allowed, the Failed SP List should be zeroed out (on the old SV), once the new SV gets activated. * A Service Provider should only be allowed on the Failed SP List for 1 (one) SV for any given TN. | |  | Feb LNPAWG (San Ramon), leave on delete pending list for now. BST evaluating 245 and 254, to see if O.K. with clearing out the Failed List on previous port, when they are the Old SP.  Mar LNPAWG (Denver), BST O.K. with clearing out Failed List. Move to Implemented List (Delete section). | |
| NANC 257 | | Natl N Pool Sub-Com’ttee 1/28/99 | GDMO Documentation Change  In the R2 version of the GDMO, the description of the Create Action (11.0 LNP New Service Provider Subscription Version Create) should be changed to reflect the dependency on the SP’s indicator flag for WSMSC data.  The new service provider must specify valid values for the following attributes, when the service provider’s “SOA WSMSC DPC SSN Data” indicator is TRUE, and must NOT specify these value when the indicator is FALSE:  subscriptionWSMSC-DPC  subscriptionWSMSC-SSN |  | GDMO, IIS | Feb LNPAWG (San Ramon), addressed in NANC 251. Sync up words, then move this change order to cancel-pending. | |
| NANC 274 | | LTI Users Group  3/24/99 | LTI push button placement for Subscription Versions  Comments were received on the issue about placement of the “Cancel” button. The “Cancel” button is currently located directly below the “Activate” button. Since Cancel is a one-step process, users can easily Cancel a subscription by accident. The Cancel button should be moved to another location (away from the Activate button), to help avoid accidental Cancellation. |  |  | The proposed change is to swap the Cancel button with the Conflict Resolved button.  Apr LNPAWG (DC), check the 2.0 screens to see if fixed, and report back to group next month.  May LNPAWG (Baltimore), leave open for now. Wait for LTI users group to get back to us. | |
| NANC 279 | | MCI 4/16/99 | SOA Resynchronization for Large Ranges  A problem exists for re-syncing the SOA for large ranges, because the SV time stamp that the NPAC users for re-syncs is the same for large ranges.  For example, if all the TNs in the range contain the same time stamp (e.g., 17 minutes and 20 seconds after 3p, 15:17:20), and the number of TNs in the range exceeds the tunable allowed for queries, the SOA cannot re-sync since the NPAC, for any time range, will respond with an error for maximum TN query reached. |  |  | May LNPAWG (Baltimore), this is an issue that needs more thought. Leave on open issue for now, and let SPs discuss internally, and provide more information next month.  June LNPAWG (San Ramon), discussed this change order in conjunction with NANC 285. Need to add to the text that this is a query functionality issue, and not just a resync issue. Since this is related to 285, MCI is O.K. with closing out this change order, and moving the requested functionality into 285. Move to cancel-pending category. | |
| NANC 293 | | LNPA WG 8/11/99 | Skipping Time Portion of Due Date Edits in the NPAC SMS  Service Providers (i.e., wireline) that do NOT support short timers have requested a change to the NPAC SMS, where the edit for a Subscription Version’s Due Date does NOT include the Time Portion of the Due Date (just the date). For Service Providers that use short timers, the Time Portion will still be used and edited by the NPAC SMS.  This change order applies only to wireless-to-wireless porting since the timer for a specific SV defaults to the longer of the timers that are supported by the two involved SPs. For example, a new SP that supports short timers and an old SP that supports long timers, causes the SV to default to long timers (reference table 1-2 Timer Type Behavior, and R5-19.4, in FRS 2.0.2). This change order will only be needed once wireless porting commences. |  |  | Aug LNPAWG (Portland), the wireline segment indicated that the Time Portion has historically been submitted as midnight on the due date (i.e., 00:00:00). This will be discussed in more detail next month.  Sep LNPAWG (Chicago), no longer needed. Move to Cancel-Pending. | |
| NANC 298 | | LNPA-WG 9/15/99 | Line Level Splits (10 digits)  Currently there are no requirements or functionality in the NPAC SMS to address line level splits, only NPA splits. This is an extension to ILL 187 (6 digit splits). This change order may become irrelevant, in light of the FCC order that prevents any future line level splits like Minny/St. Paul or Phoenix. |  |  | Sep LNPAWG (Chicago), need to add priority during Oct meeting in KC.  Oct LNPAWG (KC), group votes to move to cancel-pending. | |
| NANC 307 | | AT&T 2/4/00 | Change BDD Format for NPA-NXX and NPA-NXX-X Files  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. |  | FRS | Functional Backwards Compatible: NO  May 00 LNPAWG (Atlanta), group consensus is to move to accepted list.  Jun 00 LNPAWG (Chicago), since this change order is not backwards compatible, the NPAC SMS needs to have the ability to generate the BDD files both with and without the dash (“-“).  **December 00 meeting: LNPA WG decided to cancel this change order as the business need is no longer accurate and all systems can handle the current format (with dashes). Move to Cancel-Pending then Deleted.**  January 01 - Removed from the list by LNPAWG. | |
| NANC 310 | | AT&T 2/18/00 | Time Reference in the NPAC SMS  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, except CMIP Departure Time, 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. |  | FRS/IIS/GDMO | Functional Backwards Compatible: NO  **November 00 Meeting:** **The LNPA WG agreed that the only way to address the underlying business issues for which this change order was proposed was to identify them individually and address them separately. It was stated that there is no practical way for NPAC to store data in anything but GMT since the NPAC runs on UNIX and UNIX uses GMT. As the originator of this ‘accepted’ change order, AT&T proposed withdrawing it and the group agreed. The change order is to be moved to cancel-pending.**  January 01 – Removed from the list by LNPAWG. | |
| NANC 311 | | GTE 6/5/00 | **Query Message of SP Association Status**  Provide information of the current service status (TBD) for all LSMS associations in each NPAC region. This query would be initiated by SOAs only. This would be an enhancement to NANC 219 and 301 (Association Monitoring) which both will be fully deployed in NPAC SMS Release 4.0.  Jun 00 LNPAWG meeting, at the suggestion of the CMA, the group discussion migrated away from a dynamically updated web site, to a query message that could be used by the soon-to-be-activating Service Provider, to determine if all associations are available. This new query would be a CMIP message (M-ACTION) that would allow a query on an NPA-NXX, where the NPAC SMS would take into account all filters for that given NPA-NXX, and return a list of all SPIDs that are currently not available that should be available (i.e., the New SP is expecting an empty unavailable SP List). | ??? | FRS | Functional Backwards Compatible: NO  **December 2000 meeting:** LNPA WG decided to remove this change order from the Release 5.0 group but to keep it as an active change order until the results of the association monitoring that are being implemented in Release 4.0 (NANC 219) can be evaluated. This change order, as it currently exists in the Release 5.0 package, will be removed from the Release 5.0 package and kept as a separate document until such time as it is determined if this change order should be implemented or closed.  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  December '02 Meeting: Removed from the Accepted List by the LNPAWG. | |
| NANC 312 | | Nextlink 6/14/00 | **Different User Levels on the LTI**  Provide two user **security** levels for the LTI. One would have access to the reports option, and the second would not have this access. All other access would be identical for the two user levels. | ??? | FRS | Pure Backwards Compatible: **Yes**  **01/15/02** – Refer to the Future Change Orders document for the latest information on this change order.  December '02 Meeting: Removed from the Accepted List by the LNPAWG. | |
| NANC 320 | | ESI  11/01/00 | NPAC Retries when Local System is in Congestion  A local system may experience a transient overloaded condition that will cause its message input buffer to fill. This should be allowed as long as that local system can maintain the average rate over the timeout period, which is currently a 15-minute period. If that local system is not allowed to use any flow control, then it must be over engineered to assure that no momentary burst of messages from the NPAC could exceed its buffering capacity. |  | FRS | Func Backwards Compatible: ???  Currently the NPAC attempts to send a message to a local system and if that system happens to be momentarily in congestion, then the NPAC will count the event as an attempt but the message is never seen by the local system. In a 1 x 15minute environment, this attempt to broadcast will exhaust the retry count resulting in an abort of the association and subsequent need to re-associate and recover any messages sent during the re-association. The NPAC needs to guarantee delivery of that message after the local system emerges out of congestion. This will allow for a successful broadcast within the defined time window and avoid the extra processing for both the local system and the NPAC caused by the re-association and recovery.  **November 00 Meeting:** The stack of the sending system knows when the other system is in congestion. This is part of the ‘stack’ tool kit. The sending system can see that the other system is X messages behind. If a Service Provider system is in congestion when the NPAC sends a message, that message is lost because even though it is queued up there is no retry to send it later – this is the fall out of the 1 X 15 timer. This problem could be partially solved with a multiple retry environment.  **December 00 Meeting:** The group was informed that NeuStar had implemented a NPAC fix in the Release 3.0 software that would take care of this problem. Based on this information the change order was withdrawn and moved to Cancel-Pending then Closed/No Action.  January 01 - Removed from the list by LNPAWG. | |
| NANC 340 | | CMA 11/6/01 | **Doc Only Change Order for IIS:** Update Appendix A  The information in Appendix A is out of date and needs to be updated. | Low | IIS | **11/14/01** – Reviewed at November 2001 LNPA WG. Waiting for feedback from NeuStar.  **01/09/02** – This item has low priority. Change Order to remain in “open” status until updated information is provided by NPAC Systems Engineering.  Dec ’05 comments: move to close. This was superceded by ILL 130. | |
| NANC 349 | | NeuStar 3/6/02 | **Batch File Processing**  **Business Need:**  Service Providers periodically generate large porting activity. The current definition includes ports with 500 or more TNs.  The NPAC receives these large port requests via an online mechanism (CMIP interface or LTI), and processes them at that point in time. The current requirements do not allow for “off-line” processing of activity.  As an alternative to generating all the messages associated with large porting activity, and sending them across a Service Provider’s CMIP interface, a batch mode can be implemented whereby a Service Provider can send a batch request to the NPAC, and request that it be processed after a certain date and time.  With this change order, the NPAC and the Service Provider can offload processing that can be worked separately, but still meet the need to incorporate that work after a specified date and time. Since all large porting activity is known well in advance, both planning and processing can be addressed, thereby benefiting risk management.  The functionality covered in this change order could be any activity that is not time critical and typically done over a 24 hour period (e.g., pooled blocks where not time sensitive, or an LSMS for DPC codes). | TBD | FRS | Interface and Functional Backwards Compatible: YES  The NPAC would incorporate an offline batch processing engine that handles batch requests from a requesting Service Provider. The Service Provider would place the request in their ftp site directory. The NPAC would periodically scan for requests, pick them up, and process them offline.  After reaching the Service Provider’s requested date and time, the request would become “active” and the NPAC would process this request during off hours (e.g., during nightly housekeeping). Upon completion, the requested activity would be incorporated into the production database. Updates or notifications could be either placed in a response file at the Service Provider’s ftp site directory, or sent across the interface to the Service Provider.  A new indicator would be added to the customer profile record. This would indicate whether the Service Provider supports batch processing. If yes, any batch requests would be responded back to the Service Provider in batch mode, via a *“processing done, here are the details”* response file (placed in the ftp site directory). If the Service Provider does not support batch processing, the NPAC would send the responses to the requested activity over the interface. | |
| NANC 349 (con’t) | | **Jul ’03 APT:** The intention is to off load the interface and have it done at off peak times. The benefit is to move large volume transactions off the CMIP interface. SPs need to categorize the real-world scenarios, and provide feedback on this change order.  **Aug ’03 APT:** Real-world scenario - bulk port over 500K numbers. Business need to move numbers off the switch.  This change order will be prioritized behind the other SOA requirements. So, move out of APT document and back into main change mgmt list.  **Oct ’03 APT:** Since this relates to performance, it belongs in the list of change orders worked by the Architecture Team. Refer to the latest APT Working Document for additional details on this change order.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  **(continued)** | | | | | |
|  | | Major points/processing flow/high-level requirements:  1. NPAC messaging with SOA/LSMSs operates in a real-time mode. In some non-time-critical functions, a batch mode could meet the business need. 2. Using this alternative interface mechanism (i.e., batch mode), traffic will be offloaded from the CMIP interface:    1. A Service Provider can send a batch request to the NPAC, and request that it be processed after a certain date and time.    2. A Service Provider can utilize FTP mechanism to transfer the to/from the NPAC on a when-convenient basis. 3. The functionality would be set up to provide notifications in either a batch file, or sent across the interface. A Service Provider tunable would be established to indicate one or the other.  Requirements:  1. Batch File Processing Functionality – NPAC SMS shall provide functionality that allows batch file processing of Service Provider SOA SV activities. 2. Batch File Processing Format – NPAC SMS shall use a defined batch file format to batch process Service Provider SOA SV activities. See Appendix (TBD). 3. Batch File Processing FTP Sub-Directory – NPAC SMS shall use the FTP sub-directory of the Service Provider, based on the SPID value of the requesting Service Provider in the Batch File. 4. Batch File Processing SOA Batch Notification Indicator – NPAC SMS shall provide a Service Provider SOA Batch Notification Indicator tunable parameter which defines whether a SOA supports receiving notifications for batch requests in file format. 5. Batch File Processing SOA Batch Notification Indicator Default – NPAC SMS shall default the Service Provider SOA Batch Notification Indicator tunable parameter to TRUE. 6. Batch File Processing SOA Batch Notification Indicator Modification – NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Batch Notification Indicator tunable parameter.   **Dec 05** – Moved to Cancel-Pending per LNPAWG discussion.  3/06 – Deleted after March LNPA WG meeting. | | | | | |
| NANC 353 | | AT&T 4/12/02 | **Round-Robin Broadcasts Across SOA Associations (sister of ILL 5)**  **Business Need:**  Currently, most SOA systems have one association to the NPAC SMS over which all interface traffic is sent and received. As performance increases over the interface, a SOA may need to distribute their interface processing across multiple machines to gain additional 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.  A benefit of allowing an SP to establish additional associations during heavy activity periods is that if one of the associations goes down, the other association still remains connected, which allows the SOA to continue to send/receive messages/notifications. | Medium Low | FRS, IIS | Func Backwards Compatible: YES  **Description of Change:**  The NPAC SMS would support additional SOA 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 SOA association for notification data. 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.)  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order.  (continued) | |
| NANC 353 (cont’d) | | Major points/processing flow/high-level requirements:  1. The NPAC exchanges messages with the SOA. For every request from either the SOA or NPAC, a response is required from the recipient system.  2. The current FRS requirement (R6-28.1) calls for a sustained rate of 2 messages a second. When this volume is exceeded, a delay in processing may occur. This could be 1.) a small backlog in messages, 2.) interface congestion, or 3.) potentially an abort from the sending system for failure to respond to a message within a given period of time.  3. A new SP specific tunable, SOA Round Robin (SRR), will indicate whether or not a SOA supports receiving messages across multiple SOA associations in a round robin fashion.  4. SRR (when value set to TRUE) will be used to allow a Service Provider to maintain more than one SOA association using the same function mask and different NSAPs.  5. SOA Round Robin is applicable for both requests and responses between the SOA and the NPAC.  6. No reports are required for SRR.  7. Round Robin algorithm. Applicable for Service Providers with SRR set to TRUE.  a. When a Service Provider supports one SOA association to the NPAC:  i. All messages (requests and responses) flow across the one SOA association.  ii. If the SOA association is down, the SOA is considered “down” or “unavailable”.  b. When a Service Provider supports more than one SOA association to the NPAC:  i. The NPAC treats the multiple SOA associations as one logical association for messaging and SOA recovery.  ii. The NPAC uses a round robin or alternating algorithm, regardless of load on any given SOA association, when sending messages (requests or responses) to the SOA.  iii. If at least one SOA association is up, the SOA is considered “available”.  iv. In more that one SOA association is up, then requests and their corresponding responses may flow across different associations due to the round robin algorithm.  (Continued). | | | | | |
| NANC 353 (cont’d) | | v. If just one SOA association is up, then all messages (requests and responses) flow across the one SOA association.  vi. If one SOA association is up, then subsequent SOA association bind requests must be initiated with recovery mode set to OFF (False).  **Dec 05** – moved to Cancel-Pending per LNPAWG discussion.  3/06 – Deleted after March LNPAWG meeting. | | | | | |
| NANC 362 | |  | **Vendor Metrics**  **Business Need:**  SOA/LSMS vendors request that NPAC volume metrics be captured that would allow SOA/LSMS vendors to create a model for LNP transactional performance based on actual porting data to the SOA and LSMS.  Once a model is developed, the intent is to continue to capture various porting data (nominal, peak, duration at peak) to determine the validity of the model.  Once the model has been validated and accepted, SOA/LSMS vendors will use this model to intelligently establish the current performance requirements, and by extrapolation, the future requirements.  As porting volumes increase, the business need for this change order becomes more time sensitive to help with the situation where porting is delayed because of a slow horse situation. |  |  | Pure Backwards Compatible: YES  Both SOA and LSMS data should be gathered.  An extract is shown below from the Minutes from the Vendor Metrics Call, May 2, 2002, version 1.2. Refer to the Vendor Call Minutes for full details.  **Discussion of the LSMS metrics we should gather.**  The group proposed monthly reports showing message traffic mix.  Items to be gathered are:   1. TN range size (including range of 1), 2. Message type (create, modify, delete, queries, etc), 3. Number of messages of this range size and type, 4. aggregated in 15-minute intervals, 5. whether transmission congestion occurred during the period, 6. if congestion occurred, start and end times of congestion, 7. whether an abort occurred i.e. downstream did not respond during the period.   (Continued) | |
| Continuation of NANC 362, Vendor Metrics, Proposed Resolution section:  It was agreed that at this time the following report would be a sufficient starting place.  For each 15 minute interval,   * For the category of prepared messages, report   1. Message type,   2. Range size,   3. and the number of messages with that range size and message type, * For the category of transmitted messages, for the best case report  1. Message type, 2. Range size, 3. The number of messages with that range size and message type, 4. Count of number of times entered into congestion, 5. List of congestion intervals, 6. Count of aborts, 7. and count of aborts due to timeout.   **Discussion of SOA metrics proposed by the Slow Horse subcommittee in August and September of 2000.**  We discussed SOA metrics and agreed that what kind of data that the Slow Horse had proposed was still valid. It was agreed that the sampling interval should be 15-minute intervals and that the LTI information was not relevant. Furthermore, the data should be reported for both the prepared messages and the transmitted messages as was specified above for the LSMS. Consequently, for the SOA the report needs to contain:   1. All NPAC notifications to SOA. 2. All SOA requests to NPAC.   This information should be reported in 15-minute intervals and categorized as specified above for LSMS messages. For messages sent to the NPAC, they should be reported as:   1. TN range size (including range of 1), 2. Message type (create, modify, delete, queries, etc)., 3. Number of messages of this range size and type, 4. aggregated in 15-minute intervals.   (Continued) | | | | | | | |
| **June ’02 LNPAWG**, additional discussion.  The desire is to obtain the offered load, versus what the NPAC is actually producing. In other words, the request versus the result of the request.  Colleen Collard would like lots of data on both the inbound and outbound traffic, but realize that the more data that is requested, the longer and more expensive to produce that data. So, initially the group can accept what the NPAC is sending down to the LSMS.  Jim Rooks – porting business need is driving SOA, which drives NPAC, which drives LSMS.  John Malyar – problem is porting that happens at any single point in time.  Jim Rooks – we really need to smooth out data. We are currently looking at request data, the report is sent to NAPM.  Steve Addicks – the past doesn’t necessarily reflect future needs/load with wireless (mostly single ports), and also pooling.  Dave Garner – need to know what we have today, and also need to do a forecast/projection for the future.  NeuStar action item: provide a list of metrics for a baseline of data elements as the NPAC’s side of the projected load, as to what is occurring today. Jim Rooks provided this information at the **Aug ’02 LNPAWG** meeting.  **Jan 06** – ESI discussed internally. Performance on both sides has been resolved. Agreed to move to Cancel-Pending.  3/06 – Deleted after March LNPAWG meeting. | | | | | | | |
| NANC 363 | | NeuStar  6/14/02 | **Lockheed-to-NeuStar private enterprise number:** Change to NeuStar registration number.  **Business Need:**  The current ASN.1 uses the Lockheed Martin private enterprise number. This needs to be changed to the NeuStar registration number, as was provided by IANA (Internet Assigned Number Authority).  The following three areas in the ASN.1 will be changed:  LNP-OIDS  {iso(1) org(3) dod(6) internet(1) private(4) enterprises(1)  lockheedMartin(103) cis(7) npac(0) iis(0) oids(0)}  lnp-npac OBJECT IDENTIFIER ::=  {iso(1) org(3) dod(6) internet(1) private(4) enterprises(1)  lockheedMartin(103) cis(7) npac(0)}  -- LNP General ASN.1 Definitions  LNP-ASN1  {iso(1) org(3) dod(6) internet(1) private(4) enterprises(1)  lockheed(103) cis(7) npac(0) iis(0) asn1(1)} |  | ASN.1 | Func Backwards Compatible: NO  Change the current ASN.1 definition from lockheedMartin (103) to NeuStar (13568).  **Jan ’03 LNPAWG**, approved, move to accepted category. Need to get SOA/LSMS vendor feedback during Feb ’03 LNPAWG meeting.  **Feb ’03 LNPAWG**, SOA/LSMS vendor feedback. Colleen Collard (Tekelec), more than a recompile, but LOE is low. Logistical implementation an issue since non-backwards compatible (for vendors with single platform and different regions with different implementation dates). Need to consider efficiency of roll-out. To alleviate this problem would need all regions upgraded at same time. Burden will be somewhere for someone to support both (either NPAC or vendor side). This change should be incorporated at the next regular release, and not during it’s own release.  NPAC LOE is TBD since NPAC may support both old and new number. Would set short sunset.  SOA/LSMS LOE is low/low.  Moved to Cancel-Pending status at December 06 LNPAWG meeting | |
| NANC 370 | | NeuStar 10/23/02 | **NPAC Maintenance Mode**  **Business Need:**  The NPAC and Service Provider’s SOA/LSMS exchange messages over a CMIP association. The current implementation supports one of two scenarios:   1. The SOA/LSMS is associated with the NPAC, and messages are exchanged over that interface. 2. The SOA/LSMS is NOT associated with the NPAC, and NO messages are exchanged over that interface.   Currently, the NPAC doesn’t support a “maintenance mode” (hybrid of 1 and 2) where SOA/LSMS associations are maintained, but porting activities are not allowed. This means that with the current implementation, the NPAC allows porting activities to continue during Service Provider maintenance windows. Service Providers who are not doing maintenance can continue porting activities, which in turn generate partial failures as well as notifications. All of this activity must be recovered by Service Providers that do perform maintenance when they associate their SOA/LSMS systems with the NPAC, yielding even more notifications. Additionally, an NPAC maintenance mode will allow NeuStar to perform most of the required NPAC maintenance while maintaining service provider associations.  NeuStar presented this to the NAPM LLC, who requested that NeuStar propose an approach and the required system modifications to keep associations alive, while not allowing any transactions to be created by Service Providers. |  | FRS, IIS, GDMO, ASN.1 | Interface and Functional Backwards Compatible: NO | |
| NANC 382 | | NeuStar  4/4/03 | **“Port-Protection” System**  **(The following is the original request. Subsequent modifications were made during several LNPAWG meetings. Refer to the bottom of this change order for the current version.)**  **Overview:**  *The “Port Protection” system is a competitively neutral approach to preventing inadvertent ports that gives end-users the ability to define their portable telephone numbers as “not-portable.” The NPAC SMS enforces the “not-portable” status of a telephone number so long as it remains in effect. No Local Service Provider (LSP) can invoke or revoke “port protection” on a working telephone number; end-users completely control the portability of their portable telephone numbers.*  **Business Need:**  Inadvertent porting of working numbers is a concern to both Local Service Providers (LSPs) and their customers. In today’s LNP environment, an LSP cannot absolutely assure its customers that their terminating service will not be interrupted, even if it can insure that physical plant is operated without failure. This is because any LSP by mistake may port a telephone number away from that number’s current serving switch.  The inadvertent port can occur in a number of ways, but the most common occurrences appear to be caused by two errors: (1.) when the wrong telephone number submitted to NPAC for a conventional inter-SP port, and (2.) when intra-SP ports are not done before a pooled block is created. There is a similar inadvertent port problem for non-working numbers, but erroneous moves of non-working numbers are not directly service-affecting and are not addressed here.  NeuStar suggests the following competitively neutral method to prevent inadvertent ports of working TNs. | TBD | FRS, IIS, GDMO, ASN.1 | Interface and Functional Backward Compatible: NO  **Description of Change:**  **(The following is the original request. Subsequent modifications were made during several LNPAWG meetings. Refer to the bottom of this change order for the current version.)**  See next page. | |
| NANC 382 (con’t) | | Continuation of NANC 382, Port-Protection System, Proposed Resolution section:  -- System Architecture --  Changes to the NPAC SMS are required, to establish a table of “Port-Protected TNs” in which portable numbers that no longer can be ported are listed. A step must be added to the NPAC SMS’s validation process in order to check this new table whenever an inter-SP port or pooled block create is attempted.[[1]](#footnote-1) An interface change could be required as well if industry wishes to know when a request’s rejection is due to the involved number being on the “Port Protection” list.  Creation of an IVR system is required, to receive end-user requests for protection of their numbers from porting (or to remove this protection) and to relay the information to the NPAC SMS. The system would automatically modify the NPAC’s “Port-Protection” tables based on the end-user requests it receives. Access to the IVR would be through the end-user’s current LSP customer rep. Any other LSP willing to assist the end-user could be involved.  The end-user’s telephone number is entered in the NPAC’s “Port Protection” tables whenever “port-protection” is requested. The end-user cannot reach the “Port-Protection” IVR system directly, but instead must be connected through a local Service Provider’s customer contact system, much like what is done in the PIC selection process, where the Service Provider’s customer rep advances the call to a third-party verification service, then leaves the call to allow the third-party verifier and end-user to converse.  The IVR system must recognize the LSP as authorized to participate in the “Port Protect” process. (The LSP need not be a facility-based provider.)  Arrangements for security handshakes must be made in advance with each participating LSP.  A telephone number may be added to or removed from the “Port Protection” list whenever and as often as the end-user wishes.  To maintain the proposal’s competitive neutrality, the process assumes any LSP may assist the end-user. However, the possibility of end-users invoking or revoking “Port Protection” on telephone numbers other than their own would be mitigated if only an LSP with which the end-user had a contractual relationship could participate, i.e., only the current LSP or a new LSP in a pending port request situation.  (con’t) | | | | | |
| NANC 382 (con’t) | | Continuation of NANC 382, Port-Protection System, Proposed Resolution section:  -- System Operation --  The end-user’s telephone number is entered in the NPAC’s “Port Protection” tables whenever “port-protection” is requested. The end-user cannot reach the “Port-Protection” IVR system directly, but instead must be connected through a local Service Provider’s customer contact system, much like what is done in the PIC selection process, where the Service Provider’s customer rep advances the call to a third-party verification service, then leaves the call to allow the third-party verifier and end-user to converse.  The IVR system must recognize the LSP as authorized to participate in the “Port Protect” process. (The LSP need not be a facility-based provider.)  Arrangements for security handshakes must be made in advance with each participating LSP.  A telephone number may be added to or removed from the “Port Protection” list whenever and as often as the end-user wishes.  To maintain the proposal’s competitive neutrality, the process assumes any LSP may assist the end-user. However, the possibility of end-users invoking or revoking “Port Protection” on telephone numbers other than their own would be mitigated if only an LSP with which the end-user had a contractual relationship could participate, i.e., only the current LSP or a new LSP in a pending port request situation.  When the NPAC attempts to create a pending SV or a pooled block, the NPAC will check the “Port Protection” list in its validation process for inter-SP port (including Port-to-Original) and “-X” create requests. [[2]](#footnote-2)  The “Port Protection” validation does not occur for intra-SP ports. These may represent inadvertent ports, but validation necessary to determine whether override would be appropriate is not feasible. The validation occurs for only those deletes that are “Port-to-Original” situations.  (con’t) | | | | | |
| NANC 382 (con’t) | | Continuation of NANC 382, Port-Protection System, Proposed Resolution section:  -- Process Flow --  The end-user contacts an LSP (or an LSP contacts the end-user). *(It is not inherently necessary for there to be Service Provider involvement in this process, but NeuStar is not prepared to operate a system which does not involve LSP participation.)*  End-user indicates desire to invoke (or revoke) “Port Protection.”  LSP customer rep places end-user on hold and calls the “Port-Protection” IVR.  LSP provides its pre-assigned ID information to IVR system.  *(LSP arrange for security codes before attempting to assist end-users with the “Port-protection” process.)*  LSP brings end-user on to the active line and leaves call; end-user interacts with IVR.  Using a standard script, the IVR confirms caller is authorized to make changes to the telephone number account, determines the caller’s name, and lists the telephone number(s) to be added to (or removed from) the “port-protection” table. The customer may actually enter the TN desired. The call is recorded.  The IVR system then enters this information into an automated ticket system.  Completion of the ticket automatically sends triggers an update of the NPAC’s “port-protection” table.  *In the case of a number that has been entered in the port-protection table, but is no longer assigned to an end-user, the current Service Provider itself can ask that the number be removed from the “port-protection” table. The provider would have to be recognized by the NPAC as the code/block owner and would have to state that the number is not assigned to an end-user.* | | | | | |
| **Continuation of NANC 382, “Port-Protection” System**  **This change order was reviewed and revised during the May through Sep ’03 LNPAWG meetings. The final version of the open change order at the time of acceptance (for development of more detailed information) is shown below:**  **Overview:**  The “Port Protection” system is a competitively neutral approach to preventing inadvertent ports. The system makes it possible for end-users to define their portable telephone numbers as “not-portable.” The NPAC SMS prevents the port of a “not-portable” telephone number (TN) through its automated validation processes. A Local Service Provider (LSP) can invoke or revoke “port protection” for a working TN, but only at the end-user’s request.  **Business Need:**  Inadvertent porting of working TNs is a concern to both Local Service Providers (LSPs) and their customers. In today’s LNP environment, an LSP cannot absolutely assure its customers that their terminating service will not be interrupted, even if it can insure that the physical plant is operated without failure. This is because another LSP by mistake may port a TN away from that number’s current serving switch.  The inadvertent port can occur in a number of ways, but the most common occurrences appear to be caused by two errors: (1.) the wrong TN is submitted to the NPAC SMS for a conventional inter-SP port, and (2.) intra-SP ports are not done before a thousands-block is created. There are similar inadvertent port scenarios for non-working TNs, but erroneous moves of non-working TNs are not immediately service-affecting and are not addressed here.  NeuStar suggests the following competitively neutral method to prevent inadvertent ports of working TNs. | | | | | Interface and Functional Backward Compatible: NO  **This change order was reviewed and revised during the May through Sep ’03 LNPAWG meetings. The final version of the open change order at the time of acceptance (for development of more detailed information) is shown below:**  **Description of Change:**  -- System Architecture --  Changes to the NPAC SMS are required to establish a table of “Port Protected” TNs, in which portable numbers that no longer can be ported are listed, and to add a validation step that rejects attempts to port a TN that is on the list. The validation is performed on the new-SP’s *Create* message for an inter-SP port, when a thousands block is created, and, optionally, for an intra-SP port. (The optional intra-SP port validation is invoked on a SPID-specific basis.) The rejection notification sent when a request fails this NPAC SMS validation will indicate that the TN is on the Port Protection list. No interface change is required for this rejection message, since a new optional attribute will be added to accommodate the new error text.  LSP requests to add TNs to the Port Protection table are made to the NPAC Help Desk via e-mail (the TNs involved are shown on an Excel attachment to the e-mail message). LSPs use the same approach to delete TNs from the table.  (con’t) | | |
| NANC 382 (con’t) | | Continuation of NANC 382, Port-Protection System, Proposed Resolution section:  -- System Operation --  A TN is added to the NPAC’s Port Protection table when an LSP requests this action. The same process applies when an LSP requests the removal of a TN from the table.  The NPAC Help Desk accepts requests to change Port Protection table entries only from pre-authorized representatives of an LSP. (The LSP need not be a facility-based provider.) A TN may be added to or removed from the “Port Protection” list as often as required.  When the NPAC SMS receives the new SP’s *Create* request, it will check the Port Protection table during the *Pending SV Create* validation process for inter-SP ports (including Port-to-Original SV deletes). Optionally[[3]](#footnote-3), the validation is performed for intra-SP ports.  The NPAC SMS also will make this validation check in connection with “-X” create requests.[[4]](#footnote-4)  The validation is not applied to Modify requests[[5]](#footnote-5)  In the disconnect scenario, the NPAC SMS will check the Port Protection list and, if the TN is found, will remove the involved disconnected ported TN from the list. This automatic removal of a disconnected TN from the Port Protection list can occur only in the case of a disconnected TN that was ported. A non-ported TN that is disconnected must be removed from the list by the LSP having the disconnected non-ported TN in its inventory.  (con’t) | | | | | |
| NANC 382 (con’t) | | Continuation of NANC 382, Port-Protection System, Proposed Resolution section:  -- Process Flow --  **NPAC Help Desk**   * The end-user contacts an LSP (or an LSP contacts the end-user). * End-user indicates to LSP his desire to invoke (or revoke) “Port Protection.” * LSP contacts NPAC Help Desk via e-mail to request change. * The NPAC Help Desk updates the Port Protection table.   **NPAC SMS**   * NPAC SMS applies the Port Protection validation (1.) to the new-SP Create request of an inter-SP port, (2.) to a Block Creation request, and (3.) optionally at the individual SPID level, to an intra-SP port request. If the TN is found on the Port Protection list, NPAC SMS rejects the request and indicates that a Port Protection validation failure is the reason for the request’s rejection. * Disconnect of a ported TN results in automatic removal of the TN from the Port Protection list; disconnect of a non-ported TN requires owning LSP to request the disconnected TN’s removal from the list. * An LSP’s regional NPAC SMS Profile indicates whether the Port Protection validation should be applied also to its intra-SP port requests. | | | | | |
| 382 (cont) | | **Nov ’03 LNPAWG**, discussion:  The group discussed the high-level steps. There were a couple of updates that were requested. These steps will be evaluated once the policy issues/questions are discussed:   1. For intra-ports, let the port go through and keep them on the list. 2. In steps 4.b, no need to look at the list, just allow the Old SP Create to happen. If they are on the list, then for now, leave it on the list. 3. For step 8, add that this does NOT apply to PTO.   Policy issues/questions: (at the Jan ’04 LNPAWG, we would discuss if and how, we might Tee this up at NANC).  What types/classes of numbers can be placed on the list? What criteria? What kind of criteria.  Who can put it on the list and remove it from the list? This is an authorization question.  What is the PROCESS for getting them on and off the list? How mechanically, do you put/remove it on the list.  Who can access the list, need a process to access the list. What is shown when they access the list (police, other authority)  Other points discussed:   1. Want more than just the IVR way to get numbers on/off the list. 2. Want some type of pre-validation process to “ping” the list and see if someone is on the PPL. 3. Want the ability to audit the list.   **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November meeting. | | | | | |
| NANC 384 | | LNPA WG Archcture Planning Team  7/10/03.  Originally from ESI  6/5/03 | **NPAC Change Order Effectiveness Metrics**  **Abstract:**  This contribution proposes specific metrics for evaluating the operating characteristics of the NPAC RSMS, based on characteristics that have a direct impact on individual carriers cost of operations. It is expected that proposed change orders to NPAC RSMS could be evaluated based on projected improvements to the measurement of one or more of these metrics. Projected improvements in these measurements would be used by individual carriers to justify the cost associated with specific change orders. | Medium Low | FRS, IIS | Func Backwards Compatible: YES  Jan ’06 – ESI discussed internally, and since perfor on both sides long ago significantly resolved, agree to cancel-pending.  3/06 – Deleted after March LNPAWG meeting. | |
| NANC 384 (con’t) | | **NPAC Change Order Effectiveness Metrics (continued)**  **Contribution:**  As local number portability matures in its processes and supporting systems, and as telecommunications carriers continue to implement significant financial controls on their expenses, carriers are increasingly looking for justification for particular investments. The table below represents a list of 6 characteristic metrics that can be measured at the NPAC RSMS and have a direct impact on an individual carriers’ cost of operation. It is proposed that this set of metrics be used for regular reporting of NPAC RSMS performance capabilities, and that proposed change orders be evaluated by the potential improvement that the change may have on one or more of these metrics.  The second table represents an example of the measurements that should be captured to create a baseline measurement set and delta measurements for individual changes. These represent only estimates, and are included to illustrate the estimate or measurement data that could be provided going forward, for use in allowing businesses to make informed investment decisssions with respect to LNP capabilities.  Metrics   | Metric | Units | Measurement Technique | | --- | --- | --- | | Throughput Capacity  Reflects the steady-state porting capacity of the NPAC without queuing (assuming infinitely fast LSMS and SOA systems) | TNs/Second | Test Technique 1, item 3 | | Individual Create Processing Time  Measurement in seconds of the time from receipt to SOA notification of create activity | Seconds | Test Technique 1, item 4 | | Individual Activate Processing Time  Measurement in seconds of the time from receipt to SOA notification of activate activity (assuming no late LSMS notifications) | Seconds | Test Technique 1, item 4 | | Individual Modify Processing Time  Measurement in seconds of the time from receipt to SOA notification of modify activity | Seconds | Test Technique 1, item 4 | | Query Response Rate  Measurement in Queries/Second that represent the steady-state capacity of the NPAC. | Query Requests/ Second | Test Technique 1, item 3 | | Individual Query Response Time  Measurement in seconds of the time it takes the NPAC to respond to a representative query | Seconds | Test Technique 1, item 4 | | | | | | |
| NANC 384 (con’t) | | **Test Technique 1:**   1. Establish a representative traffic load that includes a production-like proportion of Create, Concur, Activate, Modify, and Query operations. 2. Subject the NPAC to the representative proportions of traffic at increasingly high TN/seconds rates, and measure the output LSMS notification rate (the combined rate of SV Activate, SV Modify, and SV Disconnect requests, also in TNs/second). 3. At sufficiently low rates, the NPAC will reach a steady-state where the input rate and the output rate are approximately equal. As the input rate increases, there will come a point where the input rate exceeds the output rate, indicating that the NPAC is queuing activities internally. The maximum input rate without queuing represents an effective through-put of the system, measured in TNs/second. 4. When the NPAC loaded at its effective through-put rate, individual transactions each have a start and end time, the difference of which yields a duration calculation for the individual transaction. An average transaction processing time can be calculated for each transaction type from these individual records. The measurement of the start and end time are most accurately measured by a tool placed external to the NPAC. However, it may be acceptable to do initial measurements from transaction log records internal to the NPAC RSMS application software. This is measured in seconds.   Change Order Effectiveness Estimates   | Metric | Units | Assumed Current Value | NPAC Prioritization of Notifications | NANC 179 - Ranged Notifications | NANC 347/350 - 15/60 minute abort timers | NANC 348 - BDD for notifications | NANC 351 - Send what I missed | NANC 352 - SPID recovery | NANC 368 - NPAC OBFC | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Throughput Capacity | TNs/Second | 25 | +3 | +20 |  |  |  |  | +5 | | Individual Create Processing Time | Seconds | 1 | No change | No change |  |  |  |  | No change | | Individual Activate Processing Time | Seconds | 2 | No change | No change |  |  |  |  | No change | | Individual Modify Processing Time | Seconds | 2 | No change | No change |  |  |  |  | No change | | Query Response Rate | Query Requests/ Second | 12 | +1 | +14 |  |  |  |  | +2 | | Individual Query Response Time | Seconds | 2 | No change | No change |  |  |  |  | No change | | | | | | |
| NANC 384 (con’t) | | **Aug ’03 LNPAWG**, discuss this change order in the Sep’03 APT meeting. Requirements will be worked in that forum.  **Jan ‘06** – ESI discussed internally. Performance on both sides has been resolved. Agreed to move to Cancel-Pending.  **Mar ‘06** – Deleted after March LNPAWG meeting | | | | | |
| NANC 389 | | AT&T Wireless  10/16/03 | **Performance Test-Bed**  **Business Need:**  Service Providers have expressed a desire to perform a performance volume test to mimic production behavior prior to “go-live”, and to “stress” and certify system readiness, but without having to use simulators to perform the NPAC role. Simulators have been used because the test platform provided under SOW 34 does not support testing at performance volume load levels. It is possible for a Service Provider to impact the overall stability of the SOW 34 test platform and negatively impact other NPAC users. Even with the coordination and scheduling of performance tests in the off-hours, a single Service Provider still can negatively impact the NPAC test-bed, causing downtime to clear the inbound and outbound queues.  This change order defines system requirements for a separate NPAC test-bed suitable to meet the industry performance volume test needs. Service Providers could use this test-bed at any time without support. Testing support, including setup, would be provided as agreed. | TBD | Contractual | Func Backwards Compatible: YES  This will be explored during the Nov ’03 LNPAWG meeting.  (Continued) | |
| NANC 389 (con’t) | | **Nov ’03 LNPAWG**, discussion:  Still a desire to have a Test Bed that can handle volume test loads even though past go-live date for WNP. As discussed during Oct ’03 meeting, configuration would be no failover site, and up to five simulators for SOA and LSMS sides. Desire is to have an environment just like production, so it would mirror that configuration.  Some providers still bothered by the lack of definition on what will be tested, how often, number of SPs at same time, volumes at max, number of simulators, response time needs, assumptions, etc. Just saying “***production-like***” is not well defined. We need to quantify the configuration. It was also mentioned that we would want a separate Test Bed rather than just beefing up the SOW 34 Test Bed (which is used for unassisted functional testing). The desire is to do end-to-end testing with volume, and not impact the functional Test Bed. Additional input was for volume testing (in the 10s of thousands of TNs) to test end-to-end, so bottlenecks can be identified, and possibly implement flow control in one or more places along the end-to-end path.  It was finally agreed that since this started as a wireless issue, then the WNPO would work this as a group, then provide feedback/updates/definitions back to Working Group. So, this change order will remain on the open list for now.  **Apr ’04 APT**, discussion:  The group discussed this. A concern was raised about the name of this change order (“*Production Equivalent Test Bed*”), yet there are specific performance volumes mentioned. If this truly should be “*Production Equivalent*” then it should mirror the production configuration, and not contain other performance requirements. Since the desire was to meet certain performance levels, it was agreed to change “*Production Equivalent*” to “*Performance*”. It was mentioned that the need for this test environment should be verified with the WNPO, in the context of something that is more cost effective, so the APT requested that the WNPO review this again, reconsider their specifications, and if still desired, resubmit to the APT for future discussions.  **Dec ‘05 –** moved to Cancel-Pending per LNPAWG discussion.  **Mar ‘06** – Deleted after March LNPAWG meeting. | | | | | |
| Continuation of NANC 370, NPAC Maintenance Mode, Proposed Resolution section:  **Nov ’02 LNPAWG**, Jim Rooks explained that a large percentage (~80%) of NPAC maintenance (e.g., DB maintenance) can be performed while holding a Service Provider’s association. NeuStar would use the approach where the system is quiesced and therefore won’t accept any further activity to process. A universal benefit for all parties, as the NPAC maintains associations for Service Providers that are not taking any maintenance, and therefore, don’t need to unnecessarily abort/re-associate.  Colleen Collard (Tekelec) expressed a concern about backwards compatibility, which will be discussed during the once detailed requirements are drafted. The group did discuss possible solutions to the backwards compatibility issue.  Jim Rooks stated that the industry could look into two modes, the one initially documented in this change order, and a second mode where a limited set of functionality is available over the interface. We could also look into allowing Service Provider’s to come back up (i.e., bind) in non-recovery mode, but still during the maintenance window to address a concern raised by Sean Hawkins (AWE). This is because of possible notifications that would be sent to other SPs if the binding SP caused notifications to occur.  All of these issues will be revisited.  **Dec ’02 LNPAWG**, include text indicating a large impact to inter-op testing to handle the processing failure message.  Jim Rooks also explained a second option, where some Service Providers are in maintenance, the NPAC is available, and the NPAC imposes restrictions on the types of messages that the other Service Providers are allowed to submit to the NPAC.  **Feb ’03 LNPAWG**, Dave Garner (Qwest), requested that text be added of our initial discussions regarding maintenance mode. This included, rejecting association binds, but allowing queries for SPs associated when maintenance mode is initiated (maybe more types of transactions, but will be decided during the analysis phase). This functionality is considered phase I, nothing yet for phase II.  Jim Rooks (NeuStar) indicated that we really need two modes, one that allows queries (for example, maintenance where the NPAC was doing application updates), and non-query mode (for example, maintenance where the NPAC was doing DB maintenance - rebuilding indexes, so the database would not be available, so queries would not be allowed).  A third mode was also discussed where the NPAC was performing maintenance that did not allow existing associations to be maintained (for example, a system upgrade that required the production server to be rebooted).  **Mar/Apr ’03 LNPAWG** – Major points/processing flow/high-level requirements:   1. NeuStar will work with the industry to determine maintenance dates (same as today), and also the type of maintenance and it’s associated maintenance mode. 2. There will be three different maintenance modes:    1. Mode – No Service Available. During this mode, the NPAC is performing maintenance that does NOT allow existing associations to be maintained. An example would be a system upgrade that requires production servers to be rebooted.    2. Mode – Non-query Functionality. During this mode, the NPAC is performing maintenance that does allow existing associations to be maintained, but does NOT allow any type of query functionality. An example would be a database upgrade that requires indexes to be rebuilt, so the database would not be available.    3. Mode – Query Functionality. During this mode, the NPAC is performing maintenance that does allow existing associations to be maintained and also allow query functionality. An example would be an application upgrade that does not affect router functionality or the database. 3. For this change order, only modes 2b and 2b are discussed. Mode 2a is the same as the current unavailable mode. 4. Once the agreed upon maintenance window is reached, NPAC would place itself in “maintenance mode” (2b or 2c) and sends notification to all Service Providers (no further processing, for mode 2c queries would be allowed).    1. For Service Providers still associated to the NPAC, this notification will be sent in an NPAC opINFO message. This is an existing message (LNP NPAC SMS Operational Information Notification) that contains *down-time* (both start and end down time, MM/DD/YYYY HH:MM), *npac-contact-number* (phone number), and *additional-down-time-information* (255 byte text field). Service Providers need to comment on the sufficiency of this existing message, or if an additional field is needed.    2. NPAC personnel will also be sending out an e-mail notification via the general e-mail distribution, to effectively inform those Service Providers that are not associated to the NPAC. 5. NPAC suspends all activities (for mode 2c queries would be allowed), but maintains Service Provider associations. 6. NPAC returns a processing failure message with the error indicating “NPAC maintenance mode” for any request from SOA/LSMS systems (for mode 2c queries would be allowed). The time when maintenance will be over will be included in the processing failure message. 7. For Service Providers that are not associated, the NPAC will reject the bind request (while the NPAC is in maintenance mode). The error indication in the abort message will be “NPAC in maintenance mode”. The time when maintenance will be over will be included in the abort message. 8. If an active association is aborted while the NPAC is in maintenance, the Service Provider must wait until the end of maintenance to re-associate to the NPAC.   August 03 – Removed from the list by LNPAWG. | | | | | | | |
| NANC 390 | | Qwest  10/16/03 | **New Interface Confirmation Messages SOA/LSMS – to - NPAC**  **Business Need:**  Service Provider systems (SOA/LSMS) need to know (in the form of a positive acknowledgement from the NPAC) that the NPAC has received their request message, so the systems (SOA/LSMS) do not unnecessarily resend the message and cause duplicate transactions for the same request.  Based on the current requirements for the NPAC, the NPAC acknowledgement message (generally referred to as "a response to a request" from the SOA/LSMS) is not returned until AFTER the NPAC has completed the activity required by that request. During heavy porting periods, transactions that require many records to be updated may take longer than normal for a response to be received from the NPAC. In the case of a delayed response, the SOA/LSMS may abort the association to the NPAC (e.g., after the 15 minute Abort timer expires). When the association is re-established, the SOA/LSMS may resend messages to the NPAC because they haven’t received a response to the first message and thus believe the NPAC did not receive the original message. This behavior can lead to a duplicate transaction for the same request thus: 1.) causing a heavy volume of transactions over the NPAC to SOA/LSMS interface, 2.) slowing Porting completion, 3.) causing an increase of Porting costs, 4.) causing duplicate message processing at the NPAC, and 5.) possibly causing manual intervention by NPAC and Service Provider personnel, etc. | TBD | FRS, IIS, GDMO, ASN.1 | Func Backward Compatible: NO  A new message will be explored during the Nov ’03 LNPAWG meeting.  Additionally, a discussion item needs to occur regarding the possible inclusion of Service Provider profile settings to support this new feature. | |
| NANC 390 (con’t) | | **Nov ’03 LNPAWG**, discussion:  Explained the current functionality, and the fact that higher priority transactions will be worked before other requested work, which can cause delays in responses. In the case where previously submitted work was re-sent to the NPAC, the NPAC may have to re-do work it has already done.  Providers may see a backup in their SOA traffic, thereby causing them to process extra data as well.  A toggle would need to be added for Backward compatibility. Providers that support the new confirmation message would use the new method/flow, and other providers would continue to use the current method/flow. There is definitely a benefit to this, but to obtain the benefit would require changes to the SOA as well.  It was agreed that this would be accepted as a change order, and would continue to be worked with the Architecture group in December.  **Feb ‘04** – Refer to the Architecture Planning Team’s working document for the latest information on this change order. Attached here:    **Jul ’08 LNPAWG**, discussion. Need to develop requirements for Sep ’08 review. See below:  Req-1 Service Provider SOA Interface Confirmation Message Indicator  NPAC SMS shall provide a Service Provider SOA Interface Confirmation Message Indicator tunable parameter which defines whether a SOA supports Interface Confirmation Messages.  Req-2 Service Provider SOA Interface Confirmation Message Indicator Default  NPAC SMS shall default the Service Provider SOA Interface Confirmation Message Indicator tunable parameter to FALSE.  Req-3 Service Provider SOA Interface Confirmation Message Indicator Modification  NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA Interface Confirmation Message Indicator tunable parameter. | | | | | |
| NANC 390 (con’t) | | Req-4 Service Provider SOA Interface Confirmation Message – Indicator set to FALSE  NPAC SMS shall process a Service Provider SOA request when a Service Provider SOA Interface Confirmation Message Indicator tunable parameter is set to FALSE, by using the following Interoperability Interface Specification flows:   * B.2.1 – SOA Initiated Audit * B.2.2 – SOA Initiated Audit Cancellation by the SOA * B.2.3 – SOA Initiated Audit Cancellation by the NPAC * B.2.6 –Audit Query on the NPAC * B.2.7 – SOA Audit Create for Subscription Versions within a Number Pool Block * B.3.5 – Service Provider Modification by the SOA * B.3.7 – Service Provider Query by the SOA * B.4.1.4 – NPA-NXX Creation by the SOA * B.4.1.6 – NPA-NXX Deletion by the SOA * B.4.1.8 – NPA-NXX Query by the SOA * B.4.2.2 – LRN Creation by the SOA * B.4.2.3 – LRN Deletion by the SOA * B.4.2.4 – LRN Query by the SOA * B.4.2.11 – Scoped/Filtered GET of Network Data from SOA * B.4.3.4 – Service Provider NPA-NXX-X Query by the SOA * B.4.4.1 – Number Pool Block Create/Activate by the SOA * B.4.4.13 – Number Pool Block Modify by the Block Holder SOA * B.4.4.33 – Number Pool Block Query by the SOA * B.5.1.1 – Subscription Version Create by the Initial SOA (Old Service Provider) * B.5.1.2 – Subscription Version Create by the Initial SOA (New Service Provider) * B.5.1.3 – Subscription Version Create by the Second SOA (New Service Provider) * B.5.1.4 – Subscription Version Create by the Second SOA (Old Service Provider) with Authorization to Port * B.5.1.5 – Subscription Version Activated by the New Service Provider SOA * B.5.1.11 – Subscription Version Create for Intra-Service Provider Port * B.5.1.12 – Subscription Version for Inter- and Intra-Service Provider Port-to-Original * B.5.1.13 – Subscription Version for Inter- and Intra-Service Provider Port-to-Original: All LSMSs Fail * (continued) | | | | | |
| NANC 390 (con’t) | | (continued)   * B.5.1.14 – Subscription Version for Inter- and Intra-Service Provider Port-to-Original: Partial Failure * B.5.1.17 – Subscription Version Port-to-Original of a Ported Pool TN Activation by SOA * B.5.1.17.13 – Subscription Version Port-to-Original of a Pool TN – Creation Prior to NPA-NXX-X Effective Date * B.5.1.18 – Subscription Version Inter-Service Provider Create by either SOA (Old or New Service Provider) with a Due Date which is Prior to the NPA-NXX Effective Date * B.5.2.1 – Subscription Version Modify Active Version Using M-ACTION by a Service Provider SOA * B.5.2.3 – Subscription Version Modify Prior to Activate Using M-ACTION * B.5.2.4 – Subscription Version Modify Prior to Activate Using M-SET * B.5.2.7 – Subscription Version Modify Disconnect-Pending Version Using M-ACTION by a Service Provider SOA * B.5.3.1 – Subscription Version Cancel by Service Provider SOA after Both Service Provider SOAs have Concurred * B.5.3.2 – Subscription Version Cancel: No Acknowledgment from a SOA * B.5.3.3 – Subscription Version Cancels with Only One Create Action Received * B.5.3.4 – Subscription Version Cancel by Current Service Provider for Disconnect-Pending Subscription Version * B.5.3.5 – Un-Do Cancel-Pending Subscription Version Request * B.5.4.1 – Subscription Version Immediate Disconnect * B.5.4.2 – Subscription Version Disconnect With Effective Release Date * B.5.4.7.1 – SOA Initiates Successful Disconnect Request of Ported Pooled TN * B.5.4.7.3 – Subscription Version Disconnect Request of Ported Pooled TN With Effective Release Date * B.5.4.7.14 – Subscription Version Immediate Disconnect of a Contaminated Pooled TN Prior to Block Activation (after Effective Date) * B.5.5.2 – Subscription Version Conflict Removal by the New Service Provider SOA * B.5.5.4 – Subscription Version Conflict by Old Service Provider Explicitly Not Authorizing (2nd Create) * B.5.5.5 – Subscription Version Conflict Removal by the Old Service Provider SOA * B.5.6 – Subscription Version Query * B.6.4 – lsmsFilterNPA-NXX Creation by the SOA * B.6.5 – lsmsFilterNPA-NXX Deletion by the SOA * B.6.6 – lsmsFilterNPA-NXX Query by the SOA * B.7.3 – Sequencing of Events on Initialization/Resynchronization of SOA * B.7.3.1 – Sequencing of Events on Initialization/Resynchronization of SOA using SWIM | | | | | |
| NANC 390 (con’t) | | Req-5 Service Provider SOA Interface Confirmation Message – Indicator set to TRUE  NPAC SMS shall process a Service Provider SOA request when a Service Provider SOA Interface Confirmation Message Indicator tunable parameter is set to TRUE, by using the following Interoperability Interface Specification flows:   * B.2.1C – SOA Initiated Audit – Confirmed * B.2.2C – SOA Initiated Audit Cancellation by the SOA – Confirmed * B.2.3C – SOA Initiated Audit Cancellation by the NPAC – Confirmed * B.2.6C –Audit Query on the NPAC – Confirmed * B.2.7C – SOA Audit Create for Subscription Versions within a Number Pool Block – Confirmed * B.3.5C – Service Provider Modification by the SOA – Confirmed * B.3.7C – Service Provider Query by the SOA – Confirmed * B.4.1.4C – NPA-NXX Creation by the SOA – Confirmed * B.4.1.6C – NPA-NXX Deletion by the SOA – Confirmed * B.4.1.8C – NPA-NXX Query by the SOA – Confirmed * B.4.2.2C – LRN Creation by the SOA – Confirmed * B.4.2.3C – LRN Deletion by the SOA – Confirmed * B.4.2.4C – LRN Query by the SOA – Confirmed * B.4.2.11C – Scoped/Filtered GET of Network Data from SOA – Confirmed * B.4.3.4C – Service Provider NPA-NXX-X Query by the SOA – Confirmed * B.4.4.1C – Number Pool Block Create/Activate by the SOA – Confirmed * B.4.4.13C – Number Pool Block Modify by the Block Holder SOA – Confirmed * B.4.4.33C – Number Pool Block Query by the SOA – Confirmed * B.5.1.1C – Subscription Version Create by the Initial SOA (Old Service Provider) – Confirmed * B.5.1.2C – Subscription Version Create by the Initial SOA (New Service Provider) – Confirmed * B.5.1.3C – Subscription Version Create by the Second SOA (New Service Provider) – Confirmed * B.5.1.4C – Subscription Version Create by the Second SOA (Old Service Provider) with Authorization to Port – Confirmed * B.5.1.5C – Subscription Version Activated by the New Service Provider SOA – Confirmed * B.5.1.11C – Subscription Version Create for Intra-Service Provider Port – Confirmed * B.5.1.12C – Subscription Version for Inter- and Intra-Service Provider Port-to-Original – Confirmed * B.5.1.13C – Subscription Version for Inter- and Intra-Service Provider Port-to-Original: All LSMSs Fail – Confirmed * (continued) | | | | | |
| NANC 390 (con’t) | | (continued)   * B.5.1.14C – Subscription Version for Inter- and Intra-Service Provider Port-to-Original: Partial Failure – Confirmed * B.5.1.17C – Subscription Version Port-to-Original of a Ported Pool TN Activation by SOA – Confirmed * B.5.1.17.13C – Subscription Version Port-to-Original of a Pool TN – Creation Prior to NPA-NXX-X Effective Date – Confirmed * B.5.1.18C – Subscription Version Inter-Service Provider Create by either SOA (Old or New Service Provider) with a Due Date which is Prior to the NPA-NXX Effective Date – Confirmed * B.5.2.1C – Subscription Version Modify Active Version Using M-ACTION by a Service Provider SOA – Confirmed * B.5.2.3C – Subscription Version Modify Prior to Activate Using M-ACTION – Confirmed * B.5.2.4C – Subscription Version Modify Prior to Activate Using M-SET – Confirmed * B.5.2.7C – Subscription Version Modify Disconnect-Pending Version Using M-ACTION by a Service Provider SOA – Confirmed * B.5.3.1C – Subscription Version Cancel by Service Provider SOA after Both Service Provider SOAs have Concurred – Confirmed * B.5.3.2C – Subscription Version Cancel: No Acknowledgment from a SOA – Confirmed * B.5.3.3C – Subscription Version Cancels with Only One Create Action Received – Confirmed * B.5.3.4C – Subscription Version Cancel by Current Service Provider for Disconnect-Pending Subscription Version – Confirmed * B.5.3.5C – Un-Do Cancel-Pending Subscription Version Request – Confirmed * B.5.4.1C – Subscription Version Immediate Disconnect – Confirmed * B.5.4.2C – Subscription Version Disconnect With Effective Release Date – Confirmed * B.5.4.7.1C – SOA Initiates Successful Disconnect Request of Ported Pooled TN – Confirmed * B.5.4.7.3C – Subscription Version Disconnect Request of Ported Pooled TN With Effective Release Date – Confirmed * B.5.4.7.14C – Subscription Version Immediate Disconnect of a Contaminated Pooled TN Prior to Block Activation (after Effective Date) – Confirmed * B.5.5.2C – Subscription Version Conflict Removal by the New Service Provider SOA – Confirmed * B.5.5.4C – Subscription Version Conflict by Old Service Provider Explicitly Not Authorizing (2nd Create) – Confirmed * B.5.5.5C – Subscription Version Conflict Removal by the Old Service Provider SOA – Confirmed * B.5.6C – Subscription Version Query – Confirmed * B.6.4C – lsmsFilterNPA-NXX Creation by the SOA – Confirmed * B.6.5C – lsmsFilterNPA-NXX Deletion by the SOA – Confirmed * B.6.6C – lsmsFilterNPA-NXX Query by the SOA – Confirmed * B.7.3C – Sequencing of Events on Initialization/Resynchronization of SOA – Confirmed * B.7.3.1C – Sequencing of Events on Initialization/Resynchronization of SOA using SWIM – Confirmed | | | | | |
| NANC 390 (con’t) | | GDMO/ASN.1  **Nov ’08 LNPAWG**, request to include GDMO, see the following:  (open this file with NotePad or WordPad)  **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November meeting. | | | | | |
| NANC 398 | | NeuStar 9/27/04 | **WSMSC data discrepancy situation with NANC 323 Migration**  **Business Need:**  During a NANC 323 SPID Migration, the only data that is changed is the SPID value (from SPID A to SPID B). There could be a data consistency situation that arises, when SPID A supports WSMSC data, and SPID B does not support it. | TBD | FRS | Func Backwards Compatible: TBD  TBD.  **Mar ’06 LNPAWG**:  From a Jan ’06 Action Item, *“NeuStar will check to see if this issue would prevent modification of an SV with this discrepancy, where the new SPID in the migration does not support WSMSC, but the migrated SV has the DPC data for WSMSC populated due to the old SPID supporting the service.”*  Resolution: NeuStar reported that SPID B could still modify the SV, but the WSMSC DPC and SSN would still be broadcast to everyone that supports it. SPID B could not remove it. Action Item 0106-01 is closed.  NPAC LOE: N/A  SOA/LSMS LOE: N/A  June 06 LNPAWG moved to Cancel-Pending. | |
| NANC 400 | | NeuStar  1/5/05 | **URI Fields**  **Business Need:**  Refer to separate document (last update Mar ’05). | TBD | TBD | Func Backward Compatible: Yes  **Dec 05** – moved to Accepted per LNPAWG discussion    **Apr ’07 –** implemented in the Canadian Region.  **Mar ’08 LNPAWG,** discussion**:**  With the FCC lifting abeyance on NANC 400, discussion took place on the change order. Several Service Providers requested that NANC 400 be broken up into four separate and distinct change orders, one for each URI Type. These four will be 429, 430, 431, and 432.  **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November meeting. | |
| NANC 401 | | VeriSign  1/13/05 | **Separate LSMS Association for OptionalData Fields**  **Business Need:**  Refer to separate document (last update Jun ’05). | TBD | TBD | Func Backward Compatible: Yes  **Jan 06** – moved to Accepted per LNPAWG discussion    **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November meeting. | |
| NANC 415 | | NeuStar 12/1/06 | **SIP and H.323 URIs in the NPAC**  **Business Need:**  Refer to separate document (last update Dec ’06). | TBD | TBD | Func Backward Compatible: YES    **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November meeting. | |
| NANC 423 | | VeriSign  9/11/07 | **Low Tech Interface (LTI) Transaction Filter**  **Business Need:**  (PIM 64) – Currently, when a SPID has both LTI & SOA connectivity/usage, LTI generated transactions are broadcast to their respective SOA as well. This potentially creates more work for the SOA when receiving unwanted LTI data. This change order requests functionality that filters out or eliminates unwanted LTI transaction data broadcast to the SOA. Should the need arise to see this data in the SOA it could be obtained via an Audit-in activity.  **Nov ’07 LNPAWG**, discussion:  Clarification was provided by VeriSign on the specific situation, whereby the LTI is used for a specific SPID that only uses the LTI for half their users, and the SOA for the other half of those users. The ones initiated from the LTI would use this indicator to determine whether or not to send transactions to the SOA.  **Sep ‘12** **LNPAWG**, discussion:  Moved to Cancel-Pending.  **Nov ‘12** **LNPAWG**, discussion:  Deleted from Change Order Summary document after November LNPAWG meeting. |  |  | Func Backward Compatible: Yes  The NPAC SMS would add a tunable parameter to the SPID-level customer profile that could be set to allow the suppression of LTI initiated transactions to the respective SOA.  Req 1 – Service Provider SOA LTI Transaction Indicator  NPAC SMS shall provide a Service Provider SOA LTI Transaction Flag Indicator tunable parameter which defines whether a SOA will receive/not-receive LTI-generated transactions over their SOA connection.  Req 2 – Service Provider SOA LTI Transaction Indicator Modification  NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider SOA LTI Transaction Flag Indicator tunable parameter.  **Req 3 – Service Provider SOA LTI Transaction Indicator Usage**  NPAC SMS shall send LTI-generated transactions over the SOA connection only when the Service Provider SOA LTI Transaction Flag Indicator tunable parameter is set to TRUE. | |
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# Summary of Change Orders

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| **Release #** | **Change Orders** |
| Release 0.1 | NANC 1 – Document Title Changes  NANC 2 – Preface on Number Scheme  NANC 3 – Removal of Unnecessary Illinois references  NANC 4 – Removal of Assumptions  NANC 5 – Removal of Section 1.7 Related Publications  NANC 6 – Addition of R5-19.2 and RR5-6.9  NANC 7 – Removal of “NOT A SYSTEM REQUIREMENT”  NANC 8 – Deletion/Modification of Requirements in Section 10  NANC 9 – Removal of all Requirements in Sections 6.1 and 6.2 |
| Release 1.0 | ILL 181 – Key’s for EACH Service Provider Interface ILL 188 – FRS RR5-38.3 Consistency ProblemNANC 10 – SystemType ASN.1NANC 11 – Business Day Default rewording NANC 12 – Conflict Restriction Window Tunable Clarification/Modification NANC 13 – Notification of T2 expiration to Old SPNANC 14 – GDMO Document References NANC 15 – FRS GDMO Definition Correction NANC 16 – Retry wording clarification in IISNANC 17 – ASN.1 addition of word EXPLICT for taggingNANC 18 – ASN.1 Comment for NetworkDownloadCriteriaNANC 19 – Rewording of M-CANCEL-GET note NANC 20 – Addition of lnpSpecificInfoParameter NANC 21 – IIS Section 6 note modificationNANC 22 – IIS 6.5.6 Flow modificationNANC 23 – IIS 6.2.1 Flow ModificationNANC 24 – IIS 6.5.1.2/6.5.1.3 Flow ModificationNANC 25 – IIS 6.5.4.1/6.5.4.2 Flow ModificationNANC 26 – IIS 6.5.5.2 Flow Modification NANC 27 – IIS servProvLRN-Behaviour Modification NANC 28 – IIS subscriptionVersionBehavior ModificationNANC 29 – IIS subscriptionLNPType Behavior ModificationNANC 30 – Attribute Behavior UpdatesNANC 31 – IIS subscriptionOld/NewSP-DueDate Behavior ModificationNANC 32 – IIS serviceProvNPA-NXX-Behavior ModificationNANC 33 – IIS subscriptionAuditBehavior ModificationNANC 36 – Low-tech Interface RequirementsNANC 37 – Primitive Error List ModificationNANC 38 – IIS Flow 6.4.1.6 ClarificationNANC 39 – Section 4.2.2 Correction NANC 40 – SOA flows for NPA-NXX filter management  NANC 41 – SubscriptionModifyData ASN.1 Tagging Correction NANC 42 – Documentation of lnpLocal-SMS-Name ValueNANC 50 – Flow 6.5.1.6.2 ClarificationNANC 52 – Flow 6.5.2.1, 6.5.2.3, and 6.5.3.1 ModificationNANC 53 – Chapter 10 ModificationsNANC 54 – Definition of Cause Code ValuesNANC 56 – Flow 6.5.2.3 and 6.5.2.4 correctionsNANC 57 – Digital Signature Clarification NANC 159 – Single TN in a Range Create |
| Release 1.1 | NANC 51 – OID ModificationNANC 58 – Data Download for a ModifyNANC 59 – Old SP Concurrence Request NotificationNANC 60 – Range Operation Clarification NANC 61 – SubscriptionVersionModify Behavior Modification  NANC 62 – Filter NPA-NXX Object Behavior Description/Modification NANC 63 – Flow 6.5.1.1 and 6.5.1.2 Modifications NANC 64 – Flow 6.5.1.1/6.5.1.2 objectCreation Notification Clarification  NANC 65 – Flow 6.5.1.3/6.5.1.4 attributeValueChange Notification Clarification  NANC 66 – Flow 6.5.5.2 Modification  NANC 67 – Flow 6.5.4.6 Modification  NANC 69 – NANC 1.0 and IIS discrepancies resulting from Change Order #52  NANC 70 – FRS R5-26 Modify Subscription Version – Version Identification  NANC 71 – IIS key size specification  NANC 72 – Scoped/Filtered GET of Network Data from SOA  NANC 73 – Universal Time format  NANC 74 – GDMO for subscriptionVersionNewSP-CreateBehavior BEHAVIOUR  NANC 75 – GDMO for subscriptionVersionModifyBehavior BEHAVIOUR NANC 76 – Purpose of subscriptionOldSP-DueDateNANC 78 – OID usage and NpacAssociationUserInfo |
| Release 1.2 | ILL 142 – MOC Definition Updates NANC 84 – LnpNetwork behavior updateNANC 85 – Flow 6.5.5.1 Modification NANC 86 – Unique NPAC customer Ids NANC 88 – Id Naming attributes Non-zeroNANC 91 – IIS Section 4.2.2NANC 92 – Flow 6.5.3.2 Clarification NANC 93 – Date and Time in GDMO/ASN.1 NANC 94 – IIS NANC 1.1, section 4.2.1NANC 95 – Reference: IIS NANC 1.1, section 4.2.2NANC 96 – T2 timer not on subcriptionVersionNPAC NANC 97 – OID usage and NpacAssociationUserInfo NANC 98 – TSAP data required in FRSNANC 99 – NANC IIS 1.1, section 10 Subscription Version Status Row 2NANC 100 – NANC IIS 1.1, section 10 Subscription Version Status Row 1 NANC 101 – SubscriptionVersionRemoveFromConflict Action Behavior modification NANC 102 – Key file exchange formats |
| Release 1.3 | NANC 89 – Action Scoping and Filtering Support NANC 103A – Clock Synchronization 5 or 2 Minutes NANC 104 – Edits at Bind NANC 106 – Digital Signature Definitions NANC 107 – IIS Discrepancy with R5-25 NANC 111 – Validation of Association Functions NANC 115 – Country Code Discrepancy |
| Release 1.4 | NANC 105 – Download File Formats NANC 110 – PGP documentation NANC 112 – Key ExpirationNANC 123 – IIS Section 10 Flow Clarification |
| Release 1.5 | NANC 51 – OID Modification NANC 124 – Null Character Padding NANC 126 – Use of Time in the Due Date NANC 135 – Download File Clarifications  NANC 136 – Download File Carriage Return Clarification  NANC 137 – Disconnect Active SV Behavior Clarification NANC 140 – Concurrence Timer ValuesNANC 141 – Cancel of Disconnect Pending |
| Release 1.6 | NANC 107 – IIS Discrepancy with R5-25 NANC 133 – Audit Object Definition  NANC 134 – Disconnect Action Behavior Discrepancies  NANC 143 – Subscription Version M-Delete to LSMS  NANC 144 – Filter implementation in the NPAC SMS NANC 152 – Audit Number of TNs Notification NANC 155 – End User Location Type and Value Definition NANC 157 – Key exchange interval default value NANC 165 – Flow 6.5.5.2 Correction  NANC 166 – Flow 6.5.4.1 Modification |
| Release 1.7 | NANC 130 – Notification to Old SP on Subsequent Port NANC 142 – Port to Original Flow Clarifications NANC 161 – Subsequent Port Flow NANC 163 – NPA Split Implementation NANC 164 – Duplicate NPA-NXX’s and LRN’s NANC 170 – ActivationTS vs BroadcastTS in IIS Flows NANC 171 – Audit Response Error Code Clarification NANC 172 – LSMS accepting downloads in the Flows |
| Release 1.8 | NANC 173 – Flow 6.5.2.1 Modification  NANC 176 – Modification of Status Change Cause Code  NANC 182 – NPA-NXX effective date validation NANC 190 – NPA Split Requirement 33 Interpretation |
| Release 1.9 | ILL 181 – Key’s for EACH Service Provider Interface  NANC 154 – Implementation of Key Validation  NANC 188 – Mass Update Flow 6.7.4 Modification  NANC 194 – Retry Tunables without Requirements in FRS  NANC 196 – Activation Timestamp value sent to the LSMS |
| Release 1.10 | NANC 133 – Audit Object DefinitionNANC 197 – IIS Clarification for Congestion Handling NANC 209 – Documentation of NPA Split Query Behavior NANC 211 – Flow Modifications for Failed SP List UpdatesNANC 215 – Immediate Disconnects – Section 6.5.4 of the IIS |
| Release 2.0.0 | ILL 75 – Validate Due Date is > than the NPA-NXX effect date upon Pending Version  Creation  ILL 79 – Notification Recovery (GDMO/ASN.1 impact)  ILL 131 – Creation of old SV for Every Change  NANC 48 – Multiple Service Provider Ids per SOA Association  NANC 68 – Mass Update Requirements Modification NANC 77 – Time Range ASN.1 definitionNANC 83 – NPAC Time Synchronization NANC 108 – IIS Discrepancy with R5-26  NANC 113 – ASN.1 and GDMO for Notification Recovery  NANC 114 – Download subscription-version-id-optional  NANC 118 – CMIP Notification Recovery by Time Range  NANC 131 – LRN-DownloadData Modification  NANC 139 – Network Data Download to SOA  NANC 145 – Notification Recovery Flows  NANC 156 – 6.5.3.1 Flow Modification  NANC 158 – Other Notification Recovery  NANC 160 – Single TN in a Range Create  NANC 162 – TN Attribute as GET-Replace  NANC 178 – NANC 48 Clarifications  NANC 184 – Response for Notification Recovery not Linked NANC 185 – Notification Recovery Error Response NANC 201 – Unique Sets of Timers  NANC 202 – Unique Sets of Business Days/Hours  NANC 203 – Wireless Addition of WSMSC DPC and SSN Information  NANC 206 – Proposed ASN.1 Change ILL 79  NANC 207 – Removal of Intermediate Notifications  NANC 214 – Conflict Functionality with Due Date = Today  NANC 220 – Wireless Due Date Clarification  NANC 221 – Modification of NANC 201 and 202 For New SP Create  NANC 222 – WSMSC Addition to Mass Update for NANC 203  NANC 224 – Canadian Region NPAC ID  NANC 233 – Documentation Change to IIS for 6.5.1.6 Active SV Create on Local SMS  NANC 234 – Documentation Change to IIS for 5.2.1.10 Signature Data Type  NANC 236 – Documentation Change to IIS for 6.5.1.12 SubscriptionVersion  Port-to-Original: Successful  NANC 238 – Documentation Clarifications for Wireless Change Orders, NANC 201,  202, and 203 |
| Release 2.0.1 | ILL 75 Rev 2 – Validate Due Date is > than, or equal to, the NPA-NXX effective date upon SV Creation  NANC 68 Rev 2 – Mass Update Requirement Change  NANC 228 – Maximum Subscription Version Value, and Rollover Processing  NANC 231 – Request for "Assurance of the Sequence of Transaction Processing", documentation update  NANC 241 – Documentation Change for NANC 108 IIS Discrepancy with R5-26  NANC 242 – Documentation Change to FRS for R7-96  NANC 248 – GDMO Behavior and IIS Updates  NANC 250 – Documentation Change to the FRS  NANC 253 – Documentation Change to the FRS  NANC 255 – GDMO Documentation Changes  NANC 256 – First Port Notifier for New NPA-NXX in an NPA Split  NANC 258 – FRS Documentation Change  NANC 259 – IIS Documentation Change  NANC 260 – FRS Documentation Change  NANC 261 – FRS Documentation Change  NANC 262 – FRS Documentation Change  NANC 263 – FRS Documentation Change  NANC 266 – ASN.1 Change  NANC 267 – ASN.1 Change  NANC 278 – FRS Documentation – SV Requirements |
| Release 2.0.2 | NANC 247 – Document the functionality for audit processing of “in-progress” SVs  NANC 252 – Improved Notification Process for LTI Users  NANC 264 – FRS and IIS Documentation Change  NANC 268 – Documentation Change for Mass Update  NANC 272 – Documentation Change for Audit Status  NANC 273 – LTI Subscription Version Query Max Size  NANC 276 – IIS Documentation – Immediate Disconnect B.5.4.1  NANC 277 – IIS Documentation – Modify Active SV B.5.2.1  NANC 280 – Clarification for Notification Recovery Limitation  NANC 281 – IIS Doc Change for New Conflict Removal Flow  NANC 282 – GDMO Change for WSMSC backwards compatibility  NANC 286 – Maximum Subscriber Query Name Change and Default Value Change  NANC 290 – Documentation Change – FRS RR3-13.2 and R5-19.6 wording changes  NANC 292 – FRS Documentation Update – Query SV Valid Statuses  NANC 301 – NPAC Monitoring of SOA and LSMS Associations via NPAC TCP Level  Heartbeat (transport layer) |
| Release 3.0.0 | NANC 98 – TSAP data requirement in FRS  NANC 109 – Number Pooling NANC 175 – Time Stamp default when not set NANC 216 – Mass Update by LNP Type  NANC 237 – Duplicate PSAP and Key List for different NSAP  NANC 243 – Removal of NPA-NXX or LRN from NPAC  NANC 244 – Removal of an Old NPA-NXX involved in an NPA Split at the end of PDP  NANC 251 – Documentation Change to the GDMO Behavior  NANC 265 – Documentation Change for Definition of Time  NANC 269 – Documentation Change for Bulk Data Download  NANC 270 – Documentation Change for Re-Send  NANC 275 – IIS Documentation – Error Flow Diagrams Needed  NANC 283 – GDMO Doc Only Change for Business Type and WSMSC  NANC 284 – GDMO Doc Only Change for Object, Action, Notification errors  NANC 288 – GDMO Changes for 2.x from 3.x updates for Failed SP List  NANC 289 – R3 Requirements Update – documentation only – from Pooling Assumptions walk-thru  NANC 295 – Documentation Updates to the Natl Number Pooling requirements, IIS Flows, ASN.1, GDMO  NANC 296 – Documentation Change for Central Standard Time |
| Release 3.0.1 | NANC 34 – AuditServiceProvIdRange (ASN.1 impact)  NANC 35 – ContactPagerPin (ASN.1 impact)  NANC 146 – SP Contact Data Handling  NANC 174 – Removal of SOA and LSMS combined association NANC 189 – Service Provider Allowable Functions Modification NANC 239 – Document the current process for Resynchronization  NANC 271 – Documentation Change for Single TN Audit  NANC 302 – R3 FRS documentation-only updates  NANC 303 – R3 IIS documentation-only updates  NANC 309 – Block Transition Diagram in FRS and IIS |
| Release 3.0.2 | NANC 304 – R3 GDMO documentation-only updates  NANC 306 – R3 GDMO updates for WSMSC Package  NANC 308 – R3 GDMO update for First Port Notification Removal from NPA-NXX-X Object  NANC 313 – FRS Documentation Only Change – Bulk Data Download Files for NPA-NXX-X and Block Data to be Delivered in GMT instead of Central Time.  NANC 314 – FRS Documentation Only Change – Subscription and Block Download File section in Appendix E have incorrect DPC data examples.  NANC 315 – FRS Document Only Change – NSAP Field Size  NANC 317 – Name Change to service-prov-download-reason – ASN.1 Recompile  NANC 318 – FRS Documentation Only Change – Update Requirement RR3-49 NPA Splits and the Number Pool Block Holder Information – Mass Update that includes one or more Blocks for an NPA-NXX involved in a NPA Split. |
| Release 3.1.0 | NANC 179 – TN Range Notifications  NANC 240 – No Cancellation of SVs Based on Expiration of T2 Timer  NANC 294 – Changing Due Date Edit Functionality in the NPAC SMS for 7PM on Due Date Problems  NANC 305 – R3 ASN.1 documentation-only updates  NANC 324 – IIS Document Only Change – Flow B.5.4.7.3: Subscription Version Disconnect With Effective Release Date  NANC 325 – GDMO Document Only Change – 4.0 LNP Subscription Version Cancel Action  NANC 326 – IIS Document Only Change – Flow B.5.6: Subscription Version Query  NANC 327 – FRS Document Only Change – Update Appendix C – System Tunables  NANC 328 – Tunable for Long and Short Business Days  NANC 329 – Prioritization of SOA Notifications  NANC 330 – IIS Document Only Changes to Multiple Flows:  NANC 331 – IIS Document Only Changes – |
| Release 3.2.0 | NANC 169 – Delta Download File Creation by Time Range for SVs  NANC 187 – Linked Action Replies  NANC 191 – DPC/SSN Value Edits  NANC 192 – NPA Split NPAC SMS Load File  NANC 217 – Mass Update of SPID – merged into NANC 323  NANC 218 – Conflict Timestamp Broadcast to SOA  NANC 230 – Allow a Donor SOA to Create a Port-to-Original on an Intra-Service Provider Port  NANC 246 – NPA-NXX Filters for Bulk data Download files of SVs (merged with NANC 169)  NANC 249 – Modification of Dates for a Disconnect Pending SV  NANC 287 – ASN.1 Change for Required Field in VersionNewNPA-NXX and VersionNewNPA-NXX-Recovery Notification  NANC 291 – SSN Edits in the NPAC SMS  NANC 297 – Sending SV Problem During Recovery  NANC 316 – Change the NSAP Field Size declaration in ASN.1 – ASN.1 Recompile  NANC 319 – NPAC Edit to Ensure NPA-NXX of LRN is in Same LATA as NPA-NXX of Ported TN  NANC 322 – Clean Up of Failed SP Lists Based on Service Provider BDD Response File  NANC 323 – Partial Migration of a SPID via Mass Update  NANC 332 – Doc Only Change Order for FRS: Clarification of requirement RR5-42.1  NANC 333 – Doc Only Change Order for GDMO & IIS:  NANC 334 – Doc Only Change Order for FRS:  NANC 335 – Doc Only Change Order for GDMO:  NANC 336 – Doc Only Change Order for IIS:  NANC 337 – Doc Only Change Order for IIS:  NANC 338 – Doc Only Change Order for FRS: NANC 339 – Doc Only Change Order for IIS:  NANC 341 – Doc Only Change Order for GDMO:  NANC 342 – Doc Only Change Order for IIS:  NANC 344 – Doc Only Change Order for GDMO:  NANC 345 – Doc Only Change Order for FRS:  NANC 354 – Delta Download File Creation by Time Range for network data (cousin of NANC 169)  NANC 356 – Unique Identifiers for wireline versus wireless carriers (interim solution) |
| Release 3.2.1 | NANC 360 – Doc only change order for Recovery: Maximum TN Recovery Tunable (implemented in FRS 3.2.1a and IIS 3.2.1a and GDMO 3.3.0).  NANC 365 – Doc Only Change Order for IIS/GDMO: SV Query and PTO discrepancies between the two documents (implemented in IIS 3.2.1a and GDMO 3.3.0).  NANC 366 – Doc Only Change Order for FRS/IIS: Remove references that specify GUI is in Central Time  NANC 367 – Doc Only Change Order for FRS: Requirements Updates  NANC 369 – Doc Only Change Order for IIS: Flow Updates  NANC 371 – Documentation Only – Audit Behavior (implemented in FRS 3.2.1 but not in GDMO until 3.3.0)  NANC 373 – Doc Only Change Order: Conflict AVC (implemented in FRS 3.2.1 and IIS 3.2.1 but not in GDMO until 3.3.0).  NANC 374 – Doc Only Change Order: PTO LISP (implemented in FRS 3.2.1 and IIS 3.2.1 but not in GDMO until 3.3.0).  NANC 376 – Doc Only Change Order: Modify Active with Failed List (implemented in IIS 3.2.1, FRS 3.3.0a and GDMO 3.3.0).  NANC 377 – Doc Only Change Order: Missing IIS Flow for 2nd Create by Old SP with Auth=FALSE  NANC 378 – Doc Only Change Order: Missing IIS Flow for cancellation of a disconnect-pending SV  NANC 379 – Doc Only Change Order: Update IIS Flow, 5.1.18  NANC 380 – Doc Only Change Order: IIS Updates  NANC 381 – Doc Only Change Order: FRS Updates |
| Release 3.2.2 | NANC 395 – LATA ID and NPA Split Reference Files |
| Release 3.3.0 | ILL 130 – Application Level Errors  NANC 138 – Definition of Cause Code Values-REVISITED  NANC 151 – TN and Number Pool Block Addition to Notifications  NANC 227 – 10-digit TN Filters (previously know as: “Ability to Modify/Delete of Partial Failure SV”)  NANC 254 – NPAC Requirements – Subsequent Ports of Active SV with a Failed SP List (this change order was merged with NANC 227)  NANC 285 – SOA Requested Subscription Version Query Max Size  NANC 299 – NPAC Monitoring of SOA and LSMS Associations via Heartbeat  NANC 300 – 7 Digit Block Filters for Number Pooling  NANC 321 – NPAC Edit of Service Provider Network Data – NPA-NXX Data  NANC 343 – Doc Only Change Order for IIS: Exhibit 12 of IIS section 4.2.2 does not reflect all filtering operations currently supported by the NPAC SMS.  NANC 346 – GDMO Change to Number Pool Block Data Managed Object Class (Section 29.0)  NANC 347/350 – CMIP Interface Enhancements – abort behavior  NANC 348 – Bulk Data Download File for Notifications  NANC 351 – Recovery Enhancements – “Send me what I missed” recovery message  NANC 352 – Recovery Enhancements – recovery of SPID (customer data)  NANC 357 – Unique Identifiers for wireline versus wireless carriers (long term solution)  NANC 358 – Change for ASN.1: Change SPID definition  NANC 359 – Doc Only Change Order for SPID and Billing ID: Change definition for SPID and Billing ID  NANC 360 – Doc only change order for Recovery: Maximum TN Recovery Tunable (implemented in FRS 3.2.1a and IIS 3.2.1a and GDMO 3.3.0).  NANC 361 – Doc Only Change Order for GDMO: Range Version of Object Creation Notification  NANC 364 – Doc Only Change Order for ASN.1: Create Action comment  NANC 365 – Doc Only Change Order for IIS/GDMO: SV Query and PTO discrepancies between the two (implemented in IIS 3.2.1a and GDMO 3.3.0)  NANC 368 – Outbound Flow Control  NANC 371 – Documentation Only – Audit Behavior (implemented in FRS 3.2.1 but not in GDMO until 3.3.0)  NANC 373 – Doc Only Change Order: Conflict AVC (implemented in FRS 3.2.1 and IIS 3.2.1 but not in GDMO until 3.3.0).  NANC 374 – Doc Only Change Order: PTO LISP (implemented in FRS 3.2.1 and IIS 3.2.1 but not in GDMO until 3.3.0).  NANC 375 –Limiting Ability to Remove Conflict Status with Certain Cause Code Values  NANC 376 – Doc Only Change Order: Modify Active with Failed List (implemented in IIS 3.2.1, FRS 3.3.0a and GDMO 3.3.0).  NANC 383 – Separate SOA channel for notifications (subset of NANC 353)  NANC 385 – Timer Calculation – Maintenance Window Timer Behavior  NANC 386 – Single Association for SOA/LSMS  NANC 387 – Doc Only Change Order: IIS Updates  NANC 388 – Un-do a “Cancel Pending” SV  NANC 391 – Doc Only Change Order: FRS Updates  NANC 392 – Removal of Cloned Copies of SVs and NPBs  NANC 393 – NPAC Updated Performance Requirements  NANC 394 – Consistent Behavior of Five-Day Waiting Period Between NPA-NXX-X Creation and Number Pool Block Activation, and Subscription Version Creation and its Activation  NANC 399 – SV Type and Alternative SPID Fields (implemented in FRS 3.3.0a, IIS 3.3.1a, GDMO 3.3.1 and ASN.1 3.3.0). |
| Release 3.3.1 | NANC 399 – SV Type and Alternative SPID Fields  NANC 404 – Doc Only Change Order: GDMO  NANC 405 – Doc Only Change Order: IIS  NANC 406 – Doc Only Change Order: FRS |
| Release 3.3.2 | NANC 407 – NPAC Range Operations and Associated Notifications  NANC 409 – Doc-Only Change Order: FRS Updates  NANC 410 – Doc Only Change Order: IIS |
| Release 3.3.3 | NANC 388 v2 – Un-do a “Cancel Pending” SV  NANC 411 – Doc Only Change Order: IIS  NANC 412 – Doc Only Change Order: FRS |
| Release 3.3.4 | NANC 416 – BDD File for Notifications – Adding New Attributes  NANC 429 – URI Fields (Voice)  NANC 430 – URI Fields (MMS)  NANC 435 – URI Fields (SMS)  NANC 436 – Optional Data – alternative End User Location and alternative Billing ID  NANC 438 – Last Alternative SPID  NANC 440 – FCC Order – Medium Timers  NANC 441 – FCC Order – New SP Medium Timer Indicator and Old SP Medium Timer Indicator |
| Release 3.3.4.1 | NANC 442 – Pseudo-LRN |
| Release 3.4 | NANC 147 – Version ID Rollover Strategy  NANC 355 – Modification of NPA-NXX Effective Date  NANC 396 – NPAC Filter Management – NPA-NXX Filters  NANC 397 – Large Volume Port Transactions and SOA Throughput  NANC 408 – SPID Migration Automation Change  NANC 413 – Doc Only Change Order: GDMO  NANC 414 – Validation of Code Ownership in the NPAC  NANC 418 – Post-SPID Migration SV Counts  NANC 420 – Doc-Only Change Order: FRS Updates  NANC 421 – Updates for Prepaid Wireless SV Type  NANC 422 – Doc-Only Change Order: IIS Updates  NANC 424 – Number Pool Block (NPB) Donor Disconnect Notification Priority Indicator  NANC 426 – Provide Modify Request Data to the SOA from Mass Updates  NANC 427 – Error Reduction for DPC entries in new ported and pooled records  NANC 428 – Update NPAC File Transfer Method from FTP to Secure-FTP  NANC 433 – VoIP SV Type  NANC 434 – VoIP SP Type  NANC 439 – Doc-Only Change Order: FRS Updates  NANC 443 – Doc-Only Change Order: ASN.1 Update |
| Release 3.4.2 | NANC 444 – LTI Enhancements |
| Release 3.4.3 | NANC 445 – Doc-Only Change Order: FRS Updates  NANC 446 – Pending SV Interference |
| Release 3.4.4 | NANC 448 – NPAC Sunset of non-EDR |
| Release 3.4.6 | NANC 372 – SOA/LSMS Interface Protocol Alternative (XML)  NANC 450 – Doc-Only Change Order: FRS/IIS Updates  NANC 451 – Doc-Only Change Order: GDMO Updates  NANC 452 – Ethernet Connectivity to the NPAC  NANC 455 – Update SP Type and SV Type for FCC VoIP Numbering Trial  NANC 456 – Elimination of Five-Day First-Port Waiting Period |
| Closed/No Action | ILL 3 – Enhancements to Screening of NPA-NXX Broadcast  ILL 5 – Round-Robin Broadcasts Across LSMS Associations  ILL 8 – Establish Portability Areas  ILL 9 – Portability Area Specific Tunables  ILL 10 – Portability Area Billing Enhancements  ILL 11 – Portability Area Utilities, Screen, and Report Enhancements  ILL 17 – Report Size Warning  ILL 58 – Owning SP for TN in Audit Report  ILL 65 – Network Level Audit  ILL 66 – Network Level Activation Capability  ILL 67 – DPC Validation  ILL 76 – Portability Area Indicator for Service Providers  ILL 77 – Modification of NPA-NXX effective date  ILL 98 – Limit of Mass Update Range  ILL 131 – Creation of old SV for Every Change  ILL 134 – Do Not Allow Port for the New NPA-NXX Involved in an Split Prior to  Permissive Dialing Window  ILL 183 – Download of Service Provider Data (ASN.1 impact)  ILL 187 – NXX Split Handling for 6 digits  NANC 43 – Report of SPs who initiated Audits for Another SP  NANC 44 – Effective Release Date Validation  NANC 45 – Audit a list of Service Providers  NANC 46 – NPAC to NPAC  NANC 47 – Time Zone NANC 49 – Multiple SP Contacts for a Contact Type NANC 79 – Multiple SPIDs per Service Provider LSMS  NANC 80 – Audit indication of SP’s not Audited Due to a Download Filter  NANC 81 – Audit Download Filtered LSMS NANC 82 – Mass Update SPID NANC 87 – RR5-39 Requirement Modification  NANC 90 – SP Download Indicator Addition to IIS  NANC 103B – Increase in OSI Selector Size  NANC 116 – Filter Handling Issue between IBM and DSET NANC 117 – Generalized Time Issue NANC 119 – Additional Requirements to View State Portability Area  NANC 120 – Filter Deletion  NANC 121 – lnpSpecificInfo attribute  NANC 122 – Enhanced Key Expiration Strategy  NANC 125 – Intra Service Provider Port – Port to Original  NANC 127 – Use of Range Operations from the SOA  NANC 128 – R7-111.2 Requirement Interpretation  NANC 129 – End User Location Type and Value Definition NANC 132 – Update FRS Data ModelsNANC 148 – LNPType in SV Object Creation Notification NANC 149 – Use of Time in the Due Date – Continued NANC 150 – Subscription Version M-Delete to LSMS – Continued NANC 153 – Download file creation by SP for application of Filters  NANC 167 – ILL 3 Clarification  NANC 168 – SOA Bulk Download Files  NANC 177 – Clarification to ILL 3  NANC 180 – Key Exchange Security Strengthening  NANC 181 – Tag Value Addition to the ASN.1 for NANC 146  NANC 183 – PDU Size  NANC 186 – Linked Notification Recovery Reply  NANC 193 – TN Processing During NPAC SMS NPA Split Processing  NANC 195 – Class Filter Support  NANC 198 – Unique Cancellation Notifications  NANC 199 – Attribute Value Change Notification for Mass Update  NANC 200 – Notification of NPA Splits  NANC 204 – Inter Service Provider Communication Process NANC 205 – Wireless Porting before Due DateNANC 208 – CMIP Filtering of NotificationsNANC 210 – IIS Flow 6.5.1.12 ModificationNANC 212 – Activation Timestamp in M-GET Filter NANC 213 – Subscription Version Download File Sorting  NANC 219 – NPAC Monitoring of SOA/LSMS Associations  NANC 223 – Suppress “snapback” notification to Donor SOA on LISP disconnect  NANC 225 – Ability to modify a subscription from cancel pending to pending  NANC 226 – Definitions for the value of the lsmsFilterNPA-NXXValue attribute  NANC 229 – Request for “Assurance of the Sequence of Transaction Processing”  NANC 235 – Modification of NANC 204 for GDMO Change  NANC 232 – Web Site for First Port Notifications  NANC 245 – Subsequent Ports of Active SVs with a Failed SP List  NANC 257 – GDMO Documentation Change  NANC 274 – LTI push button placement for Subscription Versions  NANC 279 – SOA Resynchronization for Large Ranges  NANC 293 – Skipping Time Portion of Due Date Edits in the NPAC SMS  NANC 298 – Line Level Splits (10 digits)  NANC 307 – Change BDD Format for NPA-NXX and NPA-NXX-X Files  NANC 310 – Time Reference in the NPAC SMS  NANC 311 – Query Message of SP Association Status  NANC 312 – Different User Levels on the LTI  NANC 320 – NPAC Retries when local System is in Congestion  NANC 340 – Doc Only Change Order for IIS: Update Appendix A  NANC 349 – Batch File Processing  NANC 353 – Round-Robin Broadcasts Across SOA Associations (sister of ILL 5)  NANC 362 – Vendor Metrics  NANC 363 – Lockheed-to-NeuStar private enterprise number  NANC 370 – NPAC Maintenance Mode  NANC 382 – “Port-Protection” System  NANC 384 – NPAC Change Order Effectiveness Metrics  NANC 389 – Performance Test-Bed  NANC 390 – New Interface Confirmation Messages SOA/LSMS – to - NPAC  NANC 398 – WSMSC data discrepancy situation with NANC 323 Migration  NANC 400 – URI Fields  NANC 401 – Separate LSMS Association for OptionalData Fields  NANC 415 – SIP and H.323 URIs in the NPAC  NANC 423 – Low Tech Interface (LTI) Transaction Filter |

1. It is appropriate to prevent the creation of a pooled block if any non-ported number in the block is “port-protected” since to allow the block’s creation would result in an inadvertent port of these numbers if the block eventually is assigned to another switch. But the intra-SP porting activity required before creating a contaminated block must be allowed to occur without requiring end-users to temporarily lift the port restrictions on their numbers. It therefore appears that an exception to the port protection validation is required, to allow a protected number to be intra-SP ported even if the number is “Port Protected.” Without network data that is unavailable to NPAC today, the NPAC could not reliably determine whether an intra-SP port maintains the telephone number’s association with the same switch from which the number was served before the intra-SP port occurred. A reasonable compromise appears to suppress the “Port-Protect” check when validating intra-SP ports rather than develop an elaborate validation process to address this scenario more completely. [↑](#footnote-ref-1)
2. A modify of an active SV’s or block’s LRN can result in the move of a telephone number to a different switch and thus could result in an inadvertent port. NeuStar is not proposing the “Port Protect” validation be applied to Modify actions because of the complexity of such validation. [↑](#footnote-ref-2)
3. The validation of intra-SP ports occurs only if the involved SP has indicated in its NPAC SMS profile that this validation is desired. [↑](#footnote-ref-3)
4. It is appropriate to prevent the creation of a pooled block if any non-ported number in the block is on the Port Protection list, since to allow the block’s creation would result in an inadvertent port of these numbers when (if) the block eventually is assigned to another switch. But the intra-SP porting activity, necessary before creating a contaminated block, is allowed to occur without requiring that the port restrictions be lifted from TNs in the block. This exception to the Port Protection validation is provided in order to allow a TN to be intra-SP ported even if the TN is on the Port Protection list. The option to include intra-SP ports in the Port Protection validation process is provided at the individual LSP’s request. [↑](#footnote-ref-4)
5. A modify of the LRN in an active SV or block record also can result in the move of a telephone number to a different switch and thus could result in an inadvertent port. However, NeuStar is not proposing the Port Protection validation be applied to Modify actions because of the complexity of such a validation. [↑](#footnote-ref-5)