NANC CHANGE ORDER IMPLEMENTED

(Rev: 29 – 12/06/00)

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Release 0.1 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	ry Final Resolution		el of fort
						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	NANC	Addition of R5-19.2 and RR5-6.9	Low	FRS	Changes were implemented in the first		<u> </u>

		Release 0.1 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
6	Meeting 1/27/97	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			release, version 0.1 of the NANC FRS.		
NANC 7	NANC Meeting 1/27/97	Subscription Version for the TN in the NPAC SMS. 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	NANC	Removal of all Requirements in Sections 6.1 and 6.2	Low	FRS	Changes were implemented in the first		

	Release 0.1 Implemented/Closed Change Orders									
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						NPAC	LSMS SOA			
9	Meeting 1/27/97	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.			release, version 0.1 of the NANC FRS.					

		Release 1.0 Implemen	ited/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Cort
						NPAC	LSMS SOA
ILL 181	Illinois 2/24/97	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 (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	Medium	IIS	IIS modifications were made in the 1.0 release.		

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						NPAC	LSMS SOA
		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.					
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	Medium	FRS	FRS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
		subscription version is no longer allowed to be set to conflict by the Old Service Provider."					
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 SubscriptionVersionOldSPFinalConcurrenceWindowExpira tion 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.	Medium	FRS / IIS / ASN.1/ GDMO	FRS and IIS were modified in the 1.0 release.		
		An additional notification and log record (InpLogOldSPFinalConcurreneWindowExpirationRecord) for the notification will be added to the IIS.					
NANC 14	Perot 3/5/97	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 {Inp-objectClass 4}; Would become: REGISTERED AS {LNP-OIDS.Inp-objectClass 4};	Low	IIS / GDMO	FRS and IIS were modified in the 1.0 release.		
NANC 15	Perot 3/5/97	FRS GDMO Definition Correction There are several places in the RFP where GDMO is	Low	FRS	FRS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
		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".					
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	Low	IIS	IIS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
		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.					
NANC 20	Perot 3/5/97	Addition of InpSpecificInfoParameter Addition of an InpSpecificInfoParameter parameter was proposed to the GDMO to inform a manager that the InpSpecificInfo 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.		

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						NPAC	LSMS SOA				
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	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 Modification IIS 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.						

	Release 1.0 Implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Priority Category Final Resolutio			el of fort				
						NPAC	LSMS SOA				
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 Modification IIS 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	Low	FRS	FRS was modified in the 1.0 release.						

		Release 1.0 Implemer	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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.					
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	Low	IIS	IIS was modified in the 1.0 release.		

		Release 1.0 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		SOA to be consistent with the FRS requirements RR3-5 through RR3-9.					
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 InpLocal-SMS-Name Value The value of the InpLocal-SMS-Name attribute is spid+InpNPAC-Name. For AT&T this would be 7421-Midwest Regional NPAC SMS". A local SMS is to instantiate the InpLocal-SMS object in the MIT. For each region that the LSMS interacts, it must create a InpLocal-SMS object with the appropriate InpLocal-SMS-Name value. Since the InpLocal-SMS-Name consists of the InpNPAC-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 InpLocal-SMS-Name and InpNPAC-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 InpNPAC-SMS-Name in the InpNPAC-SMS object. The InpLocal-SMS-Name for the InpLocal-SMS object will be the service provider id followed by a dash and the InpNPASMS-Name (e.g. 9999-Midwest Regional NPAC SMS).	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 InpNPAC-SMS-Name					

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		NPAC SMS 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	Low	IIS	IIS was modified in the 1.0 release.		

		Release 1.0 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		In the version status interaction diagram and description, all references to "cancel" as a state should be "canceled".					
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	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:	Low	IIS	IIS was modified in the 1.0 release.		

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		"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.					

Release 1.1 Implemented/Closed Change Orders Chg Orig. / Description Category **Priority** Final Resolution Level of **Order Effort** Date # NPAC LSMS SOA 3/26/97 **NANC** OID Modification Medium IIS/ASN.1 **OID Modification** 51 Lockheed Martin The OID values for the IIS currently defined are not legal The OID values for the IIS currently defined values. They where temporarily defined until permanent are not legal values. They where temporarily values could be assigned. These values should be modified defined until permanent values could be to be legal. assigned. These values should be modified to be legal. NANC Lucent Data Download for a Modify IIS/GDMO IIS modifications will be made in the 1.1 Low 58 4/1/97 release. All values are sent in the download for a modified object. The GDMO behavior should be modified for the InpDownload 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." Old SP Concurrence Request Notification The ASN.1 should be updated to state NANC AT&T IIS/GDMO/ Low service-prov-authorization-time-stamp to be 59 4/11/97 ASN.1 service-prov-authorization-creation-time-The GDMO definition for the subscriptionVersionOldSP-ConcurrenceRequest is slightly different than the ASN.1 stamp. The GDMO for the definition and should be corrected. subscriptionVersionOldSP-ConcurrenceRequest should be modified to The attribute ids shown in the notification are as follows: replace service-prov-creation-time-stamp with service-prov-authorization-creation-AND ATTRIBUTE IDS time-stamp. The GDMO for tn subscriptionTN, version-id subscriptionVersionId, subscriptionVersionNewSP-CreateRequest service-prov-id subscriptionNewCurrentSP, should have service-prov-authorization-timeservice-prov-due-date stamp should be replaced with service-provsubscriptionNewSP-DueDate, authorization-creation-time-stamp. The service-prov-creation-time-stamp service-prov-authorization should also be replaced with service-prov-old-authorization subscriptionNewSP-CreationTimeStamp, access-control accessControl: in the subscriptionVersionNewSP-CreateRequest. However the ASN.1 contains the following: VersionCreateConcurrenceRequest ::= SEQUENCE { This change will be made in release 1 per the tn PhoneNumber, NANC 4/18 conference call as part of IIS

version-id LnpKey,

1.1.

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		service-prov-id ServiceProvId, service-prov-due-date GeneralizedTime, service-prov-authorization-time-stamp GeneralizedTime access-control LnpAccessControl }					
NANC 60	Perot Systems 4/3/97	Range Operation Clarification It 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 InpFilterNPA-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.	Low	IIS/GDMO	IIS modifications will be made in the 1.1 release.		

		Release 1.1 Implemer	ted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 63	Lockheed Martin Team 4/3/97	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 IsmsFilterNPA-NXX object can be deleted via the Local SMS or SOA. The IsmsFilterNPA-NXX-ID is specified by the NPAC SMS. The Local SMS or SOA can M-DELETE, M-CREATE, and M-GET the IsmsFilterNPA-NXX objects on the NPAC SMS. (Network Data Association Function). 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	Low	IIS	IIS modifications will be made in the 1.1 release.		
NANC 64	AT&T 4/2/97	Systems. Flow 6.5.1.1/6.5.1.2 objectCreation Notification Clarification	Low	IIS	IIS modifications will be made in the 1.1 release.		

		Release 1.1 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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					
NANC 65	AT&T 4/2/97	subscriptoinNewSP-DueDate Flow 6.5.1.3/6.5.1.4 attributeValueChange Notification Clarification	Low	IIS	IIS modifications will be made in the 1.1 release.		
		The following should be added to steps f and h in flow 6.5.1.4 to clarify the attributes sent on the attribute Value Change Notification: The following attributes are sent in the attribute Value Change 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					
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	Low	IIS	IIS modifications will be made in the 1.1 release.		

		Release 1.1 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC	Lockheed	status changing from conflict to pending. Flow 6.5.4.6 Modification	Low	IIS	IIS modifications will be made in the 1.1		
67	Martin Team 4/11/97	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	lis	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 <u>Identification</u> 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	Medium	IIS/GDMO	The IIS will be updated for version 1.1.		

	Release 1.1 Implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort				
						NPAC	LSMS SOA				
		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."									
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 NpacAssociationUserInfo NpacAssociationUserInfo 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} = 1:3:6:1:4:1:103:7:0:0:2:1	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 1.1 Implemer	nted/Close	d Change C	Orders		
Chg	Orig. /	Description	Priority	Category	Final Resolution	Lev	el of
Order	Date					Eff	fort
#							
						NPAC	LSMS
							SOA
		 UserInfo (NpacAssociationInfo) OID = 1:3:6:1:4:1:103:7:0:0:2:105 Application context = OID 2:9:0:0:2 (per standards) 					
		OTHER OIDs of INTEREST: • AccessControl OID as part of a SMI notification = 1:3:6:1:4:1:103:7:0:0:8:1 accessControl as part of LNP notifications = {Inpattribute 1} = 1:3:6:1:4:1:103:7:0:0:2:1					

		Release 1.2 Implemen	ted/Close		Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						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&T 4/30/97	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		

		Release 1.2 Implemer	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
					Western – 0005 West Coast – 0006		
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 version should be viewable.	Low	FRS	This change will be made in the FRS 1.2.		
NANC 88	MCI 5/1/97	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 Clarification There 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 4.2.1 Rewording the second paragraph of 4.2.1 has been proposed. Since all CMIP operations have scope (no scope	Low	IIS	This change would be made in the IIS 1.2. This change is being reviewed by the group		

		Release 1.2 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 95	Nortel 5/12/97	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: - InpNPAC-SMS - InpServiceProvs" "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: - InpNPAC-SMS - InpServiceProvs" Reference: IIS NANC 1.1, section 4.2.2 The fourth limitation states: "Filter requests must follow the rules of the NPAC SMS.". It has been proposed that the	Low	IIS	for discussion on the next call. It was agreed to implement this change on 5/23/97. This change will be made in the IIS 1.2.		
NANC	Bellcore	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. T2 timer not on subcriptionVersionNPAC	Low	IIS/GDMO/	This change will be made in the IIS 1.2.		
96	5/12/97	The 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 subscriptionVersionOldSPFinalConcurrenceWindowExpira tion.		ASN.1			
NANC 97	Lockheed Martin Team	OID usage and NpacAssociationUserInfo Updates to changes made in NANC CO 78	Medium	IIS/GDMO	Change attribute definition for NpacAssociationUserInfo to be standards compliant.		

		Release 1.2 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
	5/15/97	OIDs 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)			The IIS will be updated in the 1.2 release.		
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 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 In 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 1 In 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	Low	IIS	Change would be made in NANC IIS 1.2		

		Release 1.2 Implemen	nted/Close	ed Change (Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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					
NANC 101	Perot Team 5/21/97	concurred by the other new Service Provider." SubscriptionVersionRemoveFromConflict Action Behavior modification NANC IIS 1.1, section 7.7, Action Definitions subscriptionVersionRemoveFromConflict ACTION should be updated to state: When a subscriptionVersionRemoveFromConflict 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 Orig. / Description **Priority** Category Final Resolution Level of **Order Date Effort** # NPAC LSMS SOA Action Scoping and Filtering Support NANC MCI Low IIS This change would be made in the IIS 1.3 or 89 5/1/97 It should be indicated in the IIS that scopes and filters are not supported on actions. The behavior that is to be used MCI and Perot are to follow up on this issue rejection or ignoring of the scoping and filtering should and suggest the final solution. also be indicated 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 Inpsubscriptions. 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

Clock Synchronization 5 or 2 Minutes

In Chapter 5 of IIS section 5.2.1.6 states clock

synchronization should be within 2 minutes, but in another

Lockheed

Martin

Team 5/31/97

NANC

103A

High

IIS

an error "no such action" from each object specified by the filter. This could mean 1 for EVERY subscriptionVersion in the NPAC.

IIS 1.3 and or 2.1 will be updated.

	Release 1.3 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort			
						NPAC	LSMS SOA			
NANC 104	AT&T 6/1/97	Per the following requirement it should be 5 minutes: R7-105.2 Generalized Time 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 minutes of the NPAC SMS system clock. Edits at Bind It 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 Definitions The 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 ASCII systemType Integer e.g. local-sms = 1 userId ASCII cmipDepartureTime ASCII format of "YYYYMMDDHH MMSS.0Z"	Low	IIS	This information will be added in IIS 1.3 and IIS 2.1.					

	Release 1.3 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort			
						NPAC	LSMS SOA			
		sequenceNumber Integer								
NANC 107	MCI 6/9/97	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 3 rd 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 Functions It 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 and stores 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		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 Implemented/Closed Change Orders Description Final Resolution Chg Orig. / **Priority** Category Level of Order **Effort** Date # NPAC | LSMS SOA Download File Formats FRS This information format will be added in **NANC** AT&T High 105 5/31/97 NANC FRS 1.4 and FRS 2.3. As with the key exchange file formats it has been requested that Lockheed Martin make available for publication the Perot has an issue with this due to the fact formats for the data download files so that both vendor that they have already implemented this functionality. The service providers have an implementations can be the same. 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 17^{th} The scripts to generate the download files will be available in the last Perot software load before 10.1. PGP documentation High FRS This information will be added in NANC NANC NANC 110 6/13/97 FRS 1.4 and FRS 2.2 It has been requested that the PGP exchange process be documented in the FRS. 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

		Release 1.4 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Fort
						NPAC	LSMS SOA
					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#/amchor918 73 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 17 th . Decision should be reached by July 25 th .		
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	ViaCrypt has been selected by the group. 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		

	Release 1.4 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort		
						NPAC	LSMS SOA		
					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 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Fort			
						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	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.					

		Release 1.5 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NAME	D .	implementation be changed to normalize the time.	<u> </u>	ED G	EDG 111 1 1 1	37/4	37/4
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: Subscription Versions in the download file are selected by an NPA-NXX begin and end range. 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. The download reason in all download files is always set to new. There are no selection criteria for the NPA-NXX, LRN or SPID down load files. All data is included. The name of the Service Provider download file is SPID.DD-MM-YYYYHH24MISS, where the SPID portion is the literal string 'SPID'. 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'. 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: • The sample NPA-NXX and LRN files should have a carriage return (CR) after each record. • The last record in each file should not be treated differently from any other record. It should be followed with a (CR). • 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	Lockheed	Disconnect Active SV Behavior Clarification	Low	IIS	IIS would be updated in the next release.		

		Release 1.5 Implemer	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
137	Martin Team 8/13/97	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."			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 Implemented/Closed Change Orders Chg Priority Final Resolution Orig. / **Description** Category Level of Order Date Effort # NPAC | LSMS SOA IIS Discrepancy with R5-25 FRS **NANC** MCI Medium The FRS 1.3 and FRS 2.1 will reflect this 107 6/9/97 change. R5-25 in the FRS indicates the following states will cause an error to be returned if an attempt is made to modify the RE-OPENED: We missed a reference in the Subscription Version: sending, failed, partial failure, IIS that should be changed as well in flow canceled, cancel pending, old or disconnect pending upon 6.5.2 the SV Modification flow has a Subscription Version modification. The IIS behavior should sentence in the overview that still reads that be updated in the 3rd paragraph to state the following a Service Provider can modify a disconnect-"Service Providers can modify attributes associated with pending subscription version. The disconnect active, pending, or conflict subscription versions. 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 ESI **Audit Object Definition** IIS The IIS would be updated. Mediu Medium Low 8/5/97 133 m Low Low The IIS contradicts it self for the audit object. The Moved to release 1 due to incompatibilities in vendor implementation. subscriptionAuditBehavior states that "All attributes must be specified on create with the exception of the subscriptionAuditAttributeList and the Awaiting response from Perot/Nortel on subscriptionAuditTN-ActivationRange". If this is the case, 9/26. then the subscriptionAuditAttributeList and subscriptionAuditTN-ActivationRange must have default A suggestion is to put the keyword OPTIONAL after the subscriptionAuditTNvalues. Activation range. The behavior should be changed to read: "All attributes must be specified on create with the exception of A GDMO change will be implemented in subscriptionAuditTN-ActivationRange if an audit is not Release 1. being done on an activation data range." Currently in the Nortel/Perot software, the NANC AT&T Disconnect Action Behavior Discrepancies Low FRS/IIS N/A N/A 134 8/10/97 version status will be set to Disconnect Action GDMO is currently in conflict with Failed or partially failed based on if the

requirements as follows: "If a delete request fails for the

create failed in all or some of the Local

		Release 1.6 Implemen	nted/Close	ed Change C	Orders		
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		disconnect subscription version after the ratry periods have			SMSs reconcitively. The NEW request is to	NPAC	LSMS SOA
		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.			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.		
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	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-		

		Release 1.6 Implemen	nted/Close	d Change C	Orders		
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						NPAC	LSMS SOA
NAME	4.000	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.			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 InpDownload requests. Lockheed Martin has interpreted these requirements to include applying the filter on subscription queries (audit), InpDownload, 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	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.	Mediu m High	

		Release 1.6 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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.					
NANC 152	Bellcore 9/4/97	Audit Number of TNs Notification The 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(112)), no-value-needed [1] NULL }	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.		

		Release 1.6 Implemer	ted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Fort
						NPAC	LSMS SOA
NANC 157	Lockheed Martin	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". Key exchange interval default value	Low	FRS	The default value in requirement R7-111.4 should be changed to 365 days.		
	Team 9/10/97	 Per 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: Service Providers may use a single keylist across multiple regions. This applies only to the keylist that the Service Provider generates. NPAC keys to be changed once a week within the key list. 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. 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). Naming convention for keylists to be as follows: FROM TO REGION KEYLIST # XX XXX XXX XX XX XX XX XX XX XX XX XX			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.</npac></spid></spid></npac></to></from>		
		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					

	Release 1.6 Implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort				
						NPAC	LSMS SOA				
		a total of 35 keylist to be generated (if we generate more keylists than this for a region something is wrong).									
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/Per ot 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 Implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort				
						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.						

		Release 1.7 Implemer	ted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
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	A 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): the new NPA-NXX involved in a split must not exist in the NPAC in the current NPAC implementation. the new NPA-NXX is NOT broadcast by the NPAC at any time 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	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.		

		Release 1.7 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
		for the old NPA-NXX in the Local SMS.				NPAC	LSMS SOA
NANC	Parat	The desired behavior is now defined in a separate document being reviewed by the team on the public web site.		EDC	Eunotionality stated for the yandare' needs to		
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.		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					

	Release 1.7 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Cort			
						NPAC	LSMS SOA			
NANC	Dorot	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.		пс	Undete the US flows					
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: Steps e and f be removed from 6.5.1.6 Steps e and f be removed from 6.5.1.9 Steps b and c have the name subscriptionVersionBroadcast changed to Subscription Version activation timestamp in flow 6.5.1.5. 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:	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					

		Release 1.7 Implemen	nted/Close	d Change C	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		highest - failed due to discrepancies high - failed on local sms low - no audit performed			change order should be closed. Closed 11/7/97.		
		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.					
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 Implemen	nted/Close		Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						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	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.		

Release 1.8 Implemented/Closed Change Orders								
Orig. / Date	Description	Priority	Category	Final Resolution		el of fort		
					NPAC	LSMS SOA		
	We should add the status change cause code should be added as an attribute that can be modified per the FRS requirements.							
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.				
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	Medium	FRS	This requirement and requirements 34 and 35 would be modified appropriately.				
	Perot Team 1/7/98	Description	Description Priority	Description	Description Priority Category Final Resolution	Description Priority Category Final Resolution Lev Eff		

	Release 1.8 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort			
						NPAC	LSMS SOA			
		date of permissive dialing.								

		Release 1.9 Implem	ented/Clos	ed Change O	rders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
ILL 181	Illinois 2/24/97	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.		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 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	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		

		Release 1.9 Implem	ented/Clos	sed Change O	rders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level o	f Effort
"						NPAC	LSMS SOA
		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			mass update.		
NANC 194	Lockheed Martin Team 1/29/1998	Retry Tunables without Requirements in FRS IIS 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.	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					

	Release 1.9 Implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of	f Effort				
						NPAC	LSMS SOA				
NANC 196	Perot Team 1/30/1998	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. 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						

		Release 1.9 Imple	emented/Clos	ed Change O	rders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level o	f Effort
						NPAC	LSMS SOA
					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		
NANC 196 (cont.)					service provider". 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 Impleme	nted/Close	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	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.	Mediu m Low	Medium Low
NANC 197	NANC T&O 2/13/98	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		

		Release 1.10 Impleme	nted/Clos	ed Change (Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Fort
						NPAC	LSMS SOA
					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	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.		

		Release 1.10 Impleme	nted/Close	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC	PacBell	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. Immediate Disconnects - Section 6.5.4 of the IIS	Low	IIS	Document the first notification in the IIS		
215	4/24/1998	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		flow 6.5.4 in IIS 1.9.		

Release 2.0.0

Release 2.0.0 Implemented/Closed	Change Orders
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	Release 2.0.0 implemented/Closed Change Orders										
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort				
						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: • subscriptionVersionNewNPA-NXX • 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	NANC	Multiple SPIDs per Service Provider SOA	Medium	FRS / IIS /	This is in Release 2 (SOW 9).	Mediu	Medium				

		Release 2.0.0 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
48	meeting 3/24/97	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.	Low	ASN.1		m	
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	NPAC Time Synchronization	Low	FRS	Perot provided the M&P for at minimum a weekly synchronization of their hosts from a		

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
	5/1/97	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.			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 R5-26 Requirement 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	High	IIS / ASN.1	This change will be made in the IIS. This is in Release 2 (SOW 9).	Mediu m Low	Medium Low

		Release 2.0.0 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		required. The OPTIONAL tag should be removed. The tagging could also be removed from the ASN.1.					
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-Irn-id LRN-ID, Service-prov-Irn-value LRN Optional, service-prov-download-reason DownloadReason, service-prov-Irn-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	Medium	IIS/FRS	The IIS and FRS would be updated. This is in Release 2 (SOW 9).	Mediu m High	High

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		(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.			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.		
NANC 145	MCI 8/27/97	Notification Recovery Flows Flows need to be added in IIS 2.3 to show the recovery	Medium	IIS	Flows would be added to the IIS 2.3 release. This change order has been combines with		
NANC 156	MCI 9/10/97	action being used by the SOA and LSMS. 6.5.3.1 Flow Modification IIS 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	ILL 79. 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.	Low	N/A
NANC 158	Bellcore/ ESI 9/17/97	Other Notification Recovery In the IIS, under the new SOA notification recovery section the following notifications are not listed: subscriptionVersionStatusAttributeValueChange attributeValueChange objectCreation objectDeletion 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	This is in Release 2 (SOW 9). 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.		

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
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-Replace The 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	Medium	FRS	The group has accepted this change. Submission to the LLC's has occurred. This is in Release 2 (SOW 9).		

		Release 2.0.0 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		associated service provider ids will not be supported by the NPAC SMS. Should be modified to stateaggregation of all messages over the SOA to NPAC SMS interface"					
NANC 178 (cont)	Continued	(continued) Requirements 12 - Filters for Associated Service Providers NPAC SMS shall apply filters for the associated Service Providers before sending them over the SOA to NPAC SMS interface a for the primary service provider. Should be changed to state "apply NPA and/or NPA-NXX (filters"	ssociation				
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:	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)		
		NetworkNotificationRecoveryReply ::= SEQUENCE {					

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		Status ENUMERATED { success (0), failed (1), time-range-invalid (2), criteria-to-large (3), no-data-selected (4) }					
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: T1 and T2 timers may need to be defaulted to 1.0 hour. Due date may need time of day to support the shortened timer intervals. 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. Conflict Resolution New Service Provider Restriction tunable default may remain at 6.0 hours for default. 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.		

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
					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	Wireless Addition of WSMSC DPC and SSN Information	?	IIS/FRS	A bit mask in the NPAC SMS could be used to indicate which SOA and LSMS systems		
	3/2/1998	Wireless Short Message Service Center (WSMSC) needs to			support the new fields.		<u> </u>

		Release 2.0.0 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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.			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 Enterprise \$ 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 { Isms SET OF SEQUENCE { CHOICE { Subscription-version-new-npa-nxx VersionNewNPA-NXX, Inp-npac-sms-operational-information NPAC-SMS-Operational-Information } Original ASN.1 follows for the LSMS portion: system-choice CHOICE { Isms SET OF SEQUENCE { subscription-version-new-npa-nxx [1] VersionNewNPA-NXX OPTIONAL, Inp-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	NANC	Removal of Intermediate Notifications	Medium	IIS/FRS	It has been requested that SOA vendors		

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Cort
						NPAC	LSMS SOA
207	T&O 3/19/1998	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.			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				 6.5.4.5: Disconnect: Resend Successful (reduction; steps d, e) 6.5.2.5: Modify Active: Resend Successfureduction; steps d, e) 6.5.4.1: Immediate Disconnect (1 messagg) Note that a subscription version could stay in a 	ul (1 messa	ngen; steps f,
					over one hour. Operational impact should be SP's to insure that if after an SV is activated it	investigate	d by

	Release 2.0.0 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort			
						NPAC LSMS SOA			
					for operations personnel to see the SV in an "a status (for over an hour for TN ranges or 6 m activities) until the SV goes to the final state a	inutes for single TN fter sending.			
					Operationally none of the Service Providers indicated they 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 status transition diagram, as sending will still occur within NPAC SMS. Therefore, this change order is ready for finalization. Approved and closed, 7/15/98. Moved to Future Release CList. Waiting for prioritization from the group.				
NANC 214	Ameritech 4/24/1998			FRS	This is in Release 2 (SOW 9). 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,				
		the expiration of the T2 timer (and may not be able to set to conflict).			requirement #3 of NANC 214 shall supercede the "N/A" listed in the conflict				

	Release 2.0.0 Implemented/Closed Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort			
						NPAC	LSMS SOA			
		(continued)			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		chat Version ndow SV into striction nable which ervice longer be tion defines that an Old mg placed Restriction e Timer g an SV on the day							
NANC	NANC	Wireless Due Date Clarification		IIS/FRS	August T&O (Detroit). The CMA reported					

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Cort
						NPAC	LSMS SOA
220	T&O 6/17/98	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.			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"		

		Release 2.0.0 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
					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.		IIS	Approved and closed, 7/15/98. Move into "Accepted" category, awaiting next release of the IIS.		
		The current documentation starts with MidWest (0000) and goes up to West Coast (0006). This is section 4.3 in Exhibit 13.			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		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.		
		would now be the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA.					
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		IIS	The documentation should be updated in the 1.11 version of the IIS.		
		from ASCII to integer. This is how the NPAC SMS and all current SOA and LSMS systems are implemented.			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		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,		
		subscriptionVersionStatusAttributeValueChange for the			awaiting next release of the IIS.		

		Release 2.0.0 Impleme	ented/Clos	ed Change	Orders		
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						NPAC	LSMS SOA
		subscription Version Status being set to sending on SV1", and step r, "set to old". In this case, the subscription Version Status Attribute Value Change should be going to the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA.					
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 Impleme	ented/Clos		Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						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.		FRS	Feb LNPAWG (San Ramon), group O.K. with this change order. Move to next doc category.		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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.					
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		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
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						NPAC	LSMS SOA
					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 to as a new paragraph at the end of the section, p 2.3.1 and 2.4.1.		
					"The NPAC SMS currently uses a 32-bit signed Naming ID Value. The maximum value is ([2*2.14B. It is anticipated that all Service Provid successfully handle Naming ID Values up to the	**32] – 1) lers will be	or e able to
					In the GDMO/ASN.1, it has been requested the state that the NPAC is using a 32-bit signed in	teger.	
					This will undergo approval during the Nov LN Nov LNPAWG (Dallas), this has been approve	ed by the g	roup.
					This change order now moves to future release included in the next release of the documentat		be
					Mar LNPAWG (Denver), possibly put into sec (sequencing numbering is discussed), instead (Leave up to CMA to determine best place for the control of the cont	of 2.3 and	2.4.
NANC 231		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		IIS	August T&O (Detroit). This change order was opened to replace its "sister" change order, NANC 229.		
		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).			Sep LNPAWG (Seattle), CMA is working with Lockheed to determine best place to insert new text regarding "confirmed mode and transaction processing".		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
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	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. This will be put into the queue of CMA updates to the IIS. No date has been scheduled.		
NANC 242 NANC 248	TSE 10/20/98 AT&T 12/4/98	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. GDMO Behavior and IIS Updates There are four proposed updates to the GDMO. 1) Need to define the usage of the InpDownload reply		FRS	The documentation should be updated in the next version of the FRS. Jan LNPAWG (Atlanta), group O.K. with this change order. Move to next doc category.		
		errors. The following needs to be added to the GDMO behavior. "The following errors can be returned in the InpDownloadReply:					

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort		
						NPAC	LSMS SOA		
		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. "							
		Reference Requirement 4 of NANC 79 in the GMDO for Release 2 under InpNotificationRecovery action: "The recovery of the SOA and LSMS notifications are independent requests".							
		(continued)							
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- Committe e 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.		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.				

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
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						NPAC	LSMS SOA
		2. SV data model. The status change cause code text needs to have #55 removed, in order to align with current NPAC SMS behavior.					
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: RR5-38.4 should have the modify active portion removed from the requirement. A new requirement should be added to reflect the modify active portion of RR5-38.4. 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 InpDownload Action definition, it should state (new words in larger print italics): The InpDownload 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		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.		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 258	Natl N Pool Sub- Com'ttee 1/28/99	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 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 systems 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.		

		Release 2.0.1 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
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 and 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.		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
n n						NPAC	LSMS SOA
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		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.		
		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.					
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		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.		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
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						NPAC	LSMS SOA
		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 cancelpending. 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. I. If the New Service Provider sends a cancellation acknowledgment, the status is set to Canceled. (continued)			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.		SOA
NANC 263 (con't)	Continued	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. The Old Service Provider may optionally send the cancellation acknowledgment.					

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort				
						NPAC	LSMS SOA				
		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,		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						
		The fix would be to only tag the last 2 new fields: Subscription-timer-type [0] Integer OPTIONAL,									

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 267	AGCS 2/25/99	subscription-business-type [1] Integer OPTIONAL 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]		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.		FRS	Apr LNPAWG (DC), group O.K. with this change order. Move to next doc list.		

		Release 2.0.1 Impleme	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		R5-66.3 Disconnect Subscription Version Complete - Set Disconnect to Old					
		NPAC SMS shall set the sending disconnect Subscription Version to old <i>if</i> upon a successful response from at least one disconnect in all Local SMSs 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.					
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

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;			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.		
		2. there is an arbitrary and rather low limit (currently 100) to the number of notifications that the NPAC SMS			The new functionality would provide LTI users with a query screen. This screen would		

Chg Order #	Orig. / Date	Description	 Category	Final Resolution		el of Cort
					NPAC	LSMS SOA
NANC	Continued	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.		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) In responding to a query, notifications marked		
252 (con't)				"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	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.		

	rig. / Date	Des	cription	Priority	Category	Final Resolution	Level of Effort	
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							NPAC	LSMS SOA
	2	uses this time. Central Standard Time - time zone, as reflected i NOT change to reflect d referred to as "network"						
268 Nur Poo Su Com	umber vite oling the sub- m'ttee 16/99 It in S E R N S u T E U R	Cocumentation change for Market Requirement: A Sample Sam	Mass Update Pool test cases, it was noted that y for NPA-NXX Range, is not Sub-Committee to update this I Functionality Cription Versions mass one or more Subscription PAC personnel to select mass update which match a of any of the following: TN, ues, SSN values, Billing ID, r End User Location Value. Cription Versions mass one or more Subscription		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.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		Location Value.					
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 the Subscription Version is Active or Partial Failure. May LNPAWG (Baltimore), group O.K. with this change order. Move to next		
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.			documentation category. 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		

Release 2.0.2 Im	plemented/Closed	Change Orders

Chg Order #	Orig. / Date	Description Description	 Category	Final Resolution		el of fort
					NPAC	LSMS SOA
NANC	АТ&Т	IIS Documentation – Immediate Disconnect B.5.4.1	IIS	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. The proposed change is to update Flow		
276	4/1/99	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.		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.	ПЅ	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.		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		

Chg Order	Orig. / Date	Description	 Category	Final Resolution	Level of Effort	
#					NPAC	LSMS SOA
		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.		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	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		

Chg Order #	Orig. / Date	Description Description	 Category	Final Resolution	Lev Eff	el of ort
					NPAC	LSMS SOA
NANC 286	AT&T 5/17/99	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. 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.	FRS	Jul LNPAWG (Ottawa), move to next doc category.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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.					
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,		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	partial-failure, disconnect-pending, canceled or old. 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		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	TBD	TBD

		Release 2.0.2 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		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			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)			(continued)		
NANC 301 (con't)	about an aborted association (rather than having their own system recognize and initiate a new bind request to the NPAC SMS). Additionally, the NPAC SMS needs to provide logging functionality (which documented in change order NANC 219). This is accomplished by enabling 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 inactive connection will appear as a stack abort to the server (in this case the SMS), logging will be done as an abort from a client (in this case the local sy In summary, the requested change is for the NPAC SMS to enable the TCP K feature on all TCP connections initiated from OTS/RFC1006.		tis g the TCP ive nce an e NPAC system). Keepalive		dropped and an abort message sent up the stack. The setting of these tunables apply across a maconnections. The values of the tcp_keepstart, tcp_keepfreq, must be determined by the LNPA-WG. The det tcp_keepstart=7200 secs, tcp_keepfreq=75 secs tcp_keepstop=600 secs. In order to detect an in as soon as possible, the following values have based on current testing efforts: tcp_keepstart=tcp_keepfreq=60 secs, and tcp_keepstop=60 secs. New requirement:	and tcp_ke and tcp_ke ault values and active asso been sugge 60 secs,	epstop s are
	1999 (patch He worked	eepalive feature was introduced to the HP OTS stack software in PHNE_17376). Jan 00, Jim loaded the stack patch on a test box with Beth to test the patch. The TCP level heartbeat worked fine C to local system not supporting the patch). Beth is planning on	at ESI.		Req 1 – NPAC SMS Monitoring of SOA and L Connections via a TCP Level H		

		Release 2.0.2 Impleme	nted/Clos	ed Change	Orders		
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						NPAC	SOA
	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.				The NPAC SMS shall be capable of supporting Heartbeat via the TCP Keepalive Feature.	a TCP Lev	/el

Release 3.0.0

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						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	NANC 6/9/97	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 000000000000000000000000000000000000	High	IIS	Backwards Compatible: YES Submitter requests that the value 00000000000000000.0Z be used and documented in the IIS. Rec. X.208: 1988, Specification of ASN.1 references ISO 8601 for the established date	Low	Med

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						NPAC	LSMS SOA
					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 000000000000000.0Z 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.		
NANC	AT&T	Macc Lindata by LND Type		FRS	Backwards Compatible: YES	Y	N/A
216	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	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	Í	N/A

Chg Order	Orig. / Date	Description	Category	Final Resolution		el of fort
#					NPAC	LSMS SOA
				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.		
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	Med	
				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.		
NANC	National	Removal of NPA-NXX or LRN from NPAC	FRS	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. Backwards Compatible: YES		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
243	Number Pooling Sub- Committe e 10/29/98	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 removalonly 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".			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		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.		
					solution still needs discussion, so it will be		

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		reaching the end of the permissive dialing period for the old NPA-NXX involved in an NPA Split.			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.		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	Continued	(continued) Under Action 1 – InpDownload	1	<u> </u>			
_		* Correct this behaviour sentence to read:	-104-				er 6, 2000

Release 3.0.0 Implemented/Closed Change Orders Chg Orig. / **Description Priority** Category **Final Resolution** Level of **Order** Date Effort # NPAC **LSMS SOA** 251 Time range requests will be limited to a tunable range specified in the NPAC SMS (con't) and must be specified in Coordinated Universal Time (UTC). Under Action 2 - InpRecoveryComplete * 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 InpRecoveryComplete 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 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 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** LNPA Documentation Change for Definition of Time FRS/IIS/GD | Backwards Compatible: YES 265 All documentation needs to be evaluated for "time MO WG 2/1/99 definitions" as defined in NANC 264, so that going forward, a Mar LNPAWG (Denver), group understands consistent view of "time" is shown in all documentation. the need to have a consistent view of "time". CMA will go back through all documentation,

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				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		
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	doc category. 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.		
		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.		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		

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		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)			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						
NANC 270	National Number	Documentation change for Re-Send While reviewing the Natl N Pool test cases, it was noted that		FRS	Backwards Compatible: YES		

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Pooling Sub- Com'ttee 3/16/99	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			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.		
Tekelec 3/31/99	ec IIS Documentation – Error Flow Diagrams Needed		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,		
		subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. Elec 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	subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. 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.	subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. Blec 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.	subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. Blec 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. 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,	subscription versions that contain a Failed SP List with one or more SPIDS, to be resent. Blec 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. 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,

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	being tracked by that change order.			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.		
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 InpLogNewSP-CreateRequestRecord MANAGED OBJECT CLASS DERIVED FROM "CCITT Rec. X.721 (1992) ISO/IEC 10165-2: 1992":eventLogRecord; CHARACTERIZED BY InpLogNewSP-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! subscriptionBusinessTypePkg PRESENT IF !present if the New SP SOA supports timer typebusiness type!; REGISTERED AS {LNP-OIDS.Inp-objectClass 7};		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.		
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 InpSubscriptions 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					
	TSE 4/30/99	Description Description	Description Description Priority Description Description Description Priority Description Description	Description Description	being tracked by that change order: Behavior is	Description

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					NPAC	LSMS SOA
		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 their service provider profile on the NPAC SMS: subscriptionWSMSC-DPC subscription WSMSC-SSN				
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:	e			
		subscriptionLRN [snip] subscriptionBillingId The WSMSC DPC and SSN can only be modified if th 'NPAC SMS New Functionality' for 'SOA WSMSC DPC SSN Data' is set in their service provider profile	e			

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						NPAC	LSMS SOA
		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-fialedfailed, canceled, cancel-pending, disconnect-pending or old version using M-SET will result in an access denied error. [snip] Upone subscription version creation, the subscriptionOldSP-DueDate and subscriptionVersion version creation, the subscriptionOldSP-DueDate and subscriptionVersion version creation, the subscriptionOldSP-DueDate and subscriptionVersion version creation, the subscriptionOldSP-DueDate		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 eld other service provider					

Chg Order #	Orig. / Date	Description Description	 Category	Final Resolution		el of fort
					NPAC	LSMS SOA
		InpNotificationRecoveryBehavior 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 they are purged from the database. ***********************************				
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 InpLogStatusAttributeValueChangeRecord MANAGED OBJECT CLASS DERIVED FROM "CCITT Rec. X.721 (1992) ISO/IEC 10165-2: 1992":eventLogRecord; CHARACTERIZED BY InpLogStatusAttributeValueChangePkg;	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

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 288 (con't)	continued	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.Inp-objectClass 10}; InpLogStatusAttributeValueChangePkg PACKAGE BEHAVIOUR InpLogStatusAttributeValueChangeDefinition, InpLogStatusAttributeValueChangeBehavior; ATTRIBUTES subscriptionVersionAttributeValueChangeInfo GET, accessControl GET; ; (continued) InpLogStatusAttributeValueChangeDefinition BEHAVIOUR DEFINED AS! The InpLogStatusAttributeValueChangeRecord class is the managed object that is used to create log records for the subscriptionVersionStatusAttributeValueChange Notification. !; InpLogStatusAttributeValueChangeBehavior BEHAVIOUR DEFINED AS! This log record can be used by any CME wanting to log the subscriptionVersionStatusAttributeValueChange Notification. !; New: CONDITIONAL PACKAGES subscriptionVersionAttributeValueChangeFailed-SP-ListPkg PRESENTIF !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.					

		Release 3.0.0 Impleme	nted/Clos	ed Change	Orders		
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						NPAC	LSMS SOA
		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 InpDownloadBehavior 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					
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		Pooling req'ments	Backwards Compatible: YES Jul LNPAWG (Ottawa), move to next doc category. Aug LNPAWG (Portland), need to remove B-		
					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		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of Cort
						NPAC	LSMS SOA
NAME		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 a="" after="" query=""> if an associated Block Create Scheduled Event, that has not been executed, exists in the NPAC SMS.</only>			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/AS N.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		FRS	Backwards Compatible: YES Sep LNPAWG (Chicago), this has been accepted, and will move into the next documentation category.		

		Release 3.0.0 Impleme	ented/Clos	ed Change	Orders		
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		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).					

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						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	Med / Low	Med / Low

		Release 3.0.1 Impleme	nted/Clos	ed Change	Orders	
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Chg Order	Orig. / Date	Description	Priority	Category	Final Resolution		el of ort
#						NPAC	LSMS SOA
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 } to: SystemType ::= ENUMERATED { soa(0), local-sms(1),	Medium	IIS/ASN.1	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. 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	ESI	npac-sms(3)value is only valid for AccessControl definition } Service Provider Allowable Functions Modification	Low	IIS/ FRS	Backwards Compatible: YES		
189		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	23,11		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		

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		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.		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.	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 MACTION 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.		

Chg Order #	Orig. / Date	Description Description		Category	Final Resolution		el of fort
"						NPAC	LSMS SOA
		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.			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 <i>larger print italics</i> . 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.		
NANC 271 (con't)	Continued		subscription/	AuditNumberOfT	red to set the number of TNs that will be audited in the Ns attribute based on the NPAC SMS audit request crite	eria.	
			subscription/ subscription/ DEFINED	AS!	· ·		

		Release 3.0.1 Implen	ented/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		vel of ffort
						NPAC	LSMS SOA
					to the start TN in the range must be		
			IIS Part 2 Flow B.2.1	Soa Initiated A	Audit (Step a)		
					CREATE request to the NPAC SMS, requesting attributes in the request:	ıg an audit.	The SOA
			subscriptio	nAudit R equest	English audit name ingSP - the service provider requesting the au ProvIdRange - which service provider or all se		ders for
			specify th	e ending TN	age - TNs to be audited. If only a single TN station equal to the starting TN statio		audited,
NANC	CMA	R3 FRS documentation-only updates	Apr LNPA	WG (DC), grou 	p O.K. with this. Move to Accepted List. Pure Backwards Compatible: YES	N/A	N/A
302	1/24/00				Tane Such Manage Companies. 125	1,112	1,11
		1. RR5-56 Create Inter-Service Provider Port-to-Origina Port – NPAC and SOA After NPA-NXX-X Creation	1				
		NPAC SMS shall reject an inter-service provider Subscription	n				
		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	<u>-</u>				

		Release 3.0.1 Impleme	ented/Clos	ed Change (Orders					
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort			
"					NPAC	LSMS SOA				
		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 Stamp3. Download Reason								
		(continued)								
NANC 302 (con't)		2. Subscription Version Data Model and Number Pool Block Data Model. Change "Disconnect Broadcast 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 NPAC SMS interface, which results in the SMS NOT broadcas 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 NPAC SMS interface, which results in the SMS broadcasting a filtered NPA-NXX to the given Local SMS.		•						
		,								

		Release 3.0.1 Impleme	nted/Clos	ed Change (Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
"						NPAC	LSMS SOA
		4. Change SPID reference. RR9-4 Pooled Number Reports – Block Holder Defau NPAC SMS shall page break the report listed in RR9-3, for eve	_	-			
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 Retention number of calendar days subsequent to new Service Provider Due Date, or old Service 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 Send audit results and notification of discrepancies, back to requesting SOA, only for the TN Range that was requested, even if other Theoremselong because of EDR Local SMS. The existing notification report will be unchanged, and will not contain block information. In cases Local SMS erroneously contained a Number Pool Block, the NPAC SMS shall send a Number Pool to the Local SMS, but shall not report any discrepancy back to the requesting SOA for this Local Total Update incorrect requirement number. Number Pool NPA-NXX-X Holder information notification of First Port, requirement number given a "R3-" prefix instead of a "RR3-" prefix. This requirement will be renumbered to RR3-228 (or the next available requirement).				onment erforming the following steps: (Previously A-2) TN Range that was requested, even if other TNs not contain block information. In cases what AC SMS shall send a Number Poole are requesting SOA for this Local Statistication of First Port, requirement number R3-	were affective and all Block of MS.	EDR delete

		Release 3.0.1 Implement	ented/Clos	ed Change (Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort					
						NPAC	LSMS SOA					
		8. Update incorrect BDD information. In the Subscription Versic compares will be defined as one NPA-NXX per file".	on BDD desci	ription, the last	sentence should be removed "The files availab	ole for LSM	S					
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 Inform	nation – LTI									
		NPAC SMS shall not allow Service Provider Personnel to requesturn an error message to the LTI user. (Previously B-415)	uest a delete o	f a Block in the	e NPAC SMS via the NPAC SOA Low-tech In	terface , and	-will-					
		numbered RR5-38.1 and RR5-38.2. This created a situation was a										
		RR3-90 Addition of Number Pooling NPA-NXX-X I	Holder Infori	nation Effectiv	ve 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 2 nd , days (i.e., Monday-Friday), the minimum eff			•		siness					
		12. Delete requirement RN3-4.10, which becomes obsolete with N	NANC 244 be	ing implemente	ed in R3.							
		RN3-4.10 NPA Split - Retention of NPA-NXX(s) invol-	ved in an NP	A Split								
		NPAC SMS shall leave the old NPA-NXX(s) involved in a spl	it as valid NP	A-NXX(s).								

		Release 3.0.1 Impleme	nted/Clos	ed Change	Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
		Note: Old NPA-NXX(s) may be deleted via normal processing	after the end	of permissive	dialing.	•	
NANC 303	CMA 1/24/00	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'.			Pure Backwards Compatible: YES	N/A	N/A
NANC 303 (con't)		2. Update flow B.5.6, Subscription Version Query by adding "sub 3.	scriptionStat	susChangeCaus	seCode (SOA)" to the list of data returned fro	m an SV que	ry.
		Update flow B.4.2.10, Scoped/Filtered GET of Network Data. This scenario shows a request for network data via a scoped/filtered GET of Network Data.	tered M-GET	ſ. In this case,	scoping is done from the InpNetwork object.	However, sSc	coping

	Release 3.0.1 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort		
						NPAC	LSMS SOA		
		 and filtering can be done from serviceProvNetwork, serviceProvNetwork, serviceProvNetwork".) (picture update from "InpNetwork" to "serviceProvNetwork".) 1. Action is taken by the Local SMS personnel to request net 2. The Local SMS sends a scoped/filtered M-GET request to 3. The NPAC SMS sends network data objects (serviceProvN Local SMS that initiated the request. 4. A final M-GET response is sent to the Local SMS that initino data. 	work data vi the NPAC S letwork, serv	a a scoped/filte MS. iceProvNPA-N	ered M-GET request. NXX, serviceProvLRN) that pass the scope/filter		the		
NANC		(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: subscription Version Modify or M-SET: on relevant subscription Version NPAC attributes for pending, active, and conflict versions.							
		Column 4: InpSubscriptions 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 subscriptionV	ersionStatus	to "conflict," s	subscriptionConflictTimeStamp, and				

		Release 3.0.1 Implem	ented/Clos	ed Change (Orders				
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort			
						NPAC LSMS SOA			
		subscriptionModifiedTimeStamp in the subscriptionVers	onNPAC obje	ect.					
		3. NPAC SMS issues an M-SET response. If the M-SET fair	ls, processing	for this scenari	io stops.				
		4. NPAC SMS issues an M-EVENT-REPORT subscription	VersionStatus	AttributeValue(Change to old service provider SOA.				
		5. The old service provider SOA returns an M-EVENT-REF	ORT confirm	ation to the NP	AC SMS.				
		$6. NPAC \ SMS \ issues \ subscription Version Status Attribute Various \ Attribute \ A$	lueChange for	status to new	service provider SOA.				
		7. The new service provider SOA returns an M-EVENT-RE	PORT confirm	nation to the N	PAC SMS.				
		7							
NANC		(continued) 8. NPAC SMS sends a subscriptionVersionStatusAttributeV	alueChange to	set the old ser	rvice provider's authorization to "FALSE"				
303 (con't)		9. The old service provider SOA returns an M-EVENT-REPORT confirmation to the NPAC SMS.							
(con t)		•							
		10. NPAC SMS sends an <i>subscriptionVersion</i> Attribu	_		•				
		11. The new service provider SOA returns an M-EVENT-RE							
		12. Once the conflict is resolved, NPAC personnel take actio		-					
		13. NPAC SMS issues an M-SET request to update the subsc	_	_					
		14. NPAC SMS issues an M-SET response. If the M-SET fai			•				
		15. NPAC SMS issues subscriptionVersionStatusAttributeVa	•		•				
		16. The old service provider SOA returns an M-EVENT-REF	ORT confirm	ation to the NP	AC SMS.				
		17. NPAC SMS issues subscriptionVersionStatusAttributeVa	lueChange for	the new status	to the new service provider SOA.				
		18. The new service provider SOA returns an M-EVENT-RE	PORT confirm	nation to the N	PAC SMS.				
		19. NPAC SMS sends a subscriptionVersion Status AttributeV	alueChange to	the old service	e provider's indicating the authorization has bee	en set to "TRUE".			
	_	20. The old service provider SOA returns an M-EVENT-REF	ORT confirm	ation to the NP	AC SMS.				

Chg Order #	Orig. / Date	Description	Priority		E' ID I'					
"				Category	Final Resolution	Level of Effort				
						NPAC LSMS SOA				
		21. NPAC SMS sends an subscription Version Attribut	eValueChang	e to the new ser	rvice provider indicating the authorization has b	een set to "TRUE".				
		22. The new service provider SOA returns an M-EVENT-RE	PORT confirm	nation to the NI	PAC SMS.					
NAME OF		(continued)								
NANC 303 (con't)		6. Update flow B.5.1.6.4, Subscription Version Create: Failure to send a "subscriptionVersionStatusAttributeValueChange" to "subscriptionVersionAttributeValueChange" notification).				dso update picture				
		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 <i>Concurrence</i> 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 cl	necked to ens	ure it is appropi	riate for that object class.					
		All M-ACTIONs that relate to subscriptions and number	pool blocks a	re targeted to In	pSubscriptions.					
		The ONLY filters allowed by the GDMO for lnpSubscrip	tions are "equ	ality" and "pres	sent" for the single attribute lnpSubscriptionsNa	ime.				
		If any one of the above M-ACTIONs is sent to a subscrip response from that object.	tionVerisonN	PAC or number	PoolBlockNPAC object you will get a "no such	action" error				
		If you send a scoped/filtered M-ACTION whose scope in an error "no such action" from each object specified by the								
		(continued)								
NANC		8.								

		Release 3.0.1 Impleme	nted/Clos	ed Change (Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
303 (con't)		Update audit behavior for erroneous block on EDR LSMS. SOA Audit Create for Subscription Versions within a Number In this scenario, the SOA initiates the audit of one or more subs SMSs, this involves the subscription version objects. For EDR If discrepancies are found, the NPAC SMS will create, modify report to the SOA the discrepancies with subscription version in TNs within the audit range that were also within the block range contains a Number Pool Block, the NPAC SM not report any discrepancy back to the request as usual. 9. Update SV status reference in B.4.1.5, NPA-NXX Deletion by Check the subscriptions database to see if subscriptions List or "canceled." Also, check if any NPA-NXX-Xs or Update SV status reference in B.4.2.3, LRN Deletion by the Check the subscriptions database to see if subscriptions or "canceled." Also, check if any Number Pool Blocks e returned. 10. Remove B.4.2.9, Network Data Download, as this is superced (continued)	scription ver Local SMSs or delete subdentifiers. The see Howev AS will sees sting SO2 by the Local exist with the SOA, in stee exist with the xist with the xist with the sist with the	sions that are was, this involves be scription version that, if a number ser, in the condition of the ser, in the ser, i	within the range of a number pool block. For no both subscription version objects and number pool and number pool objects, as necessary. The probablock object is in error, the discrepancy wase where an EDR Local SMS erroper Pool Block delete to the Local ocal SMS. Subscription version discrepance that have a status other than "old" without twith this NPA-NXX. If so, terminate processave a status other than "old" without a lawx. If so, an M-SET error response complete.	NPAC SMS vill be report one ously SMS, but it a Fail be restricted Service of the	s will red as all well will reported seed SP is point.
NANC 303 (con't)			s for a SOA i	nitiated Audit i	ncluding a Number Pool Block, step #3, to incl	ude status o	of (

		Release 3.0.1 Impleme	nted/Clos	ed Change (Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Leve Effo	
						NPAC	LSMS SOA
		12. Update all audit flows (B.2.1, 2.3, 2.4, 2.5, 2.7.3, 2.8.2) to remode Add new text to indicate this delete is performed by housekeep 13.	ing.	·			,
		Update flows B.5.2.3 SubscriptionVersion Modify Prior to Acti SET, to add the following text for the AVC's sent to the New ar	nd Old SPs.				
		"Attribute value change notifications will be sent to both service conflict or disconnect-pending subscription versions: subscriptionNewSP-DueDate subscriptionNewSP-CreationTimeStamp subscriptionOldSP-DueDate subscriptionOldSP-Authorization subscriptionOldSP-AuthorizationTimeStamp subscriptionStatusChangeCauseCode subscriptionVersionStatus "	e provider S	OAs when the	following attribute values change for a pending,	cancel-pen	iding,
		14. Update flow B.6.5.1.12, SubscriptionVersion Port-to-Original: correct). The SAVC from the NPAC SMS goes to the current of				ture is wron	g, text is
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

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS SOA
NANC 304	CMA 1/24/00	R3 GDMO documentation-only updates 1 1.0 LNP Download Action InpDownload ACTION InpDownloadBehavior BEHAVIOUR SOAs can use the InpDownload action to recover network data—and—notification data. The InpNotificationRecovery action is used to recover notification data. Local SMSs can use the InpDownload Action to recover network data, and subscription version data—and—notification data. The InpNotificationRecovery action is used to recover notification data. The InpNotificationRecovery 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 functions. The SOA recovers network function (dataDownload). The SOA the network data management association the LSMS recovers network data and substitutional download association function (dataDowndata using the network data management (networkDataMgmt).	york dat DA recover n function scription nload) and	ca using s network (networkDa data using recovers r	the data download associated data and notification data using ataMgmt). the data notification	ion	

	Release 3.0.2 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Leve Effe			
						NPAC	LSMS SOA		
NANC 304 (con't)		2 15.0 Notification Recovery Action InpNotificationRecoveryBehavior BEHAVIOUR The SOA or LSMS is capable of recovering functions. The SOA recovers netwook function (dataDownload). The SOA the network data management association The LSMS recovers network data and substituted download association function (dataDown data using the network data management (networkDataMgmt). (continued) 3 31.0 LNP Service Provider LRN Last Modified serviceProvLRN-CreationTimeStamp ATTRIBUTE WITH ATTRIBUTE SYNTAX LNP-ASN1.GeneralTime; MATCHES FOR EQUALITY, ORDERING; BEHAVIOUR serviceProvLRN-CreationTimeStampEREGISTERED AS {LNP-OIDS.lnp-attribute 31}; Change the name from "Last Modified Time Stamp" to the subscription Version Managed Object	Time Stam	ta using ts network of (networkDa data using l recovers n on function	the data download associated data and notification data using ataMgmt). the data notification	ion	SOA		
		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 O	Class						

	Release 3.0.2 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	 	vel of fort		
						NPAC	LSMS SOA		
		The Local SMS must support equality and attribute in a scoped and filtered request							
		5 12.0 LNP NPAC SMS Managed Object Class lnpNPAC-SMS-Behavior BEHAVIOUR The subscriptionVersionNewNPA-NXX is us 1.4 for—number pooling.	sed to sup	port the R e	elease				
NANC		(continued) 6.							
304 (con't)		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		IIS/GDMO	Pure Backwards Compatible: NO Functional Backwards Compatible: YES	N/A	N/A		

CI	0 . /	Release 5.0.2 Impleme				т т	1 C
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
"						NPAC	LSMS SOA
		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};			This requires a re-compile. May 00 LNPAWG (Atlanta), group consensus is to release a new GDMO by COB, Friday, 5/12.		
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-CreationTimeStamp GET, serviceProvNPA-NXX-X-CreationTimeStamp GET, serviceProvNPA-NXX-X-DownloadReason GET-REPLACE, serviceProvNPA-NXX-X-DownloadReason GET-REPLACE, serviceProvNPA-NXX-X-EffectiveTimeStamp GET-REPLACE;		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

Release 3.0.2 Imp	olemented/Closed	Change Orders

GI	0. /	P				_	1 6
Chg	Orig. /	Description	Priority	Category	Final Resolution	Lev	el of
Order	Date					Eff	fort
#							
#							
						NPAC	LSMS
							SOA
		NOTIFICATIONS					
NANC	TSE	Name Change to service-prov-download-reason in ASN.1		ASN.1	This change has already been implemented in	N/A	N/A/
317	9/6/00	- ASN.1 Recompile			Release 3.0.2 of the ASN.1.		N/A
		In Release 3.0.2 of the ASN.1 a change was made to update			This change order is being written after the		
		the element name for the service-prov-download-reason in the			fact for tracking purposed only.		
		NPA-NXX-X DownloadData. A change order was never			lact for tracking purposed only.		
		written to cover this change.					
		Prior to Release 3.0.2 of the ASN.1 the element name was:			Sept 00 – At the time this change was		
		1 Hor to Release 5.0.2 of the ASIV.1 the element fiame was.			implemented (May 00) it was an ASN.1		
		service-prov-download-reason [5] DownloadReason			recompile (implemented in ASN.1 version		
					3.0.2). Now it is a document only change		
		Release 3.0.2 of the ASN.1 changed the element name to:			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.		
		service-prov- <i>npa-nxx-x</i> -download-reason [5]			The contain the rior with 5.0.2 and 50 noted.		
		DownloadReason					
		This change required a recompile which has already been					
		done.					

Release 4.0.0

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		el of fort
						NPAC	LSMS
							SOA

Closed/ No Action

Closed/ No Action Change Orders

Chg Order	Orig. / Date	Description	Priority	Category	Final Resolution	Level of
# ILL 11	Lockheed Martin Team / 10/17/96	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.	Effort
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.	
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: a) local time b) universal coordinated time (uses "Z" at end) c) 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	High	IIS	This change order will be evaluated by the group. This change order was closed no action.	

	Closed/ No Action Change Orders							
Chg Order	Orig. / Date	Description	Priority	Category	Final Resolution	Level of		
#						Effort		
		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.						
NANC 127	Nortel/Per ot 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	8/5/97 AGCS	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 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.			

		Closed/ No Ac	ction Chan	ge Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
					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 210	Lockheed Martin Team 3/30/1998	IIS Flow 6.5.1.12 Modification IIS 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	Low	IIS	Submitter is reviewing this change order for accuracy. This change order may be withdrawn. Closed no action by submitter 4/14/1998.	

	Closed/ No Action Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort		
		Original, and that status sent to the old and new SP. The NPAC actually sends a status of "Disconnect-Pending". This status only lasts 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.						
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 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 inability 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 229	BellSouth 8/11/98	Request for "Assurance of the Sequence of Transaction Processing".		IIS	Discussed during 8/12/98 face-to-face T&O meeting (Detroit).			

		Closed/ No Ac	tion Chan	ge Orders		
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		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.			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 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 resyncs 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.	

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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 Functionalit y / 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 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 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.	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

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
		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.			 following information: Audit request parameters, which identified the scope of the audit. Date and Time of Audit. Progress indication. Service Provider network, which contains database conflict. A difference indicator which indicates one of the following: Mismatch between the NPAC SMS and local SMS Record missing in local SMS An audit failure No discrepancies found would be modified to add a bullet as follows: 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	Pending DELETE as of 1/6/98	FRS/IIS	Moved to pending delete by originator.			

Deleted Change Orders									
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution				
		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.							
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	WorldCo m 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-	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.				

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
		NXX to the same time as the permissive dialing period start was not enough of a safe guard.						
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-Irn-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			
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	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.			

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
		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.						
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 2 nd 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	Time Zone	Pending DELETE	FRS/IIS	This functionality may be covered by ILL 9.			

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
	meeting 3/24/97	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.	as of 1/6/98					
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	Pending DELETE as of	FRS/IIS/ ASN.1/ GDMO	Audit changes have been viewed as a very low priority.			

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
		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.	1/6/98					
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 cancelpending. 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 416 or 20. June 00 LNPAWG meeting, group consensus (during R5 discussion) is to move to cancel-pending.			

	Deleted Change Orders							
Chg	Orig. /	Description	Priority	Category	Final Resolution			
Order #	Date							
"					Sept 00 LNPA WG meeting – move to deleted.			
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	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	portability area supported by the NPAC SMS. 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	InpSpecificInfo attribute It has been pointed out that InpSpecificInfo 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: an abort from a service provider occurs on an active association. a key change is desired. Service Providers would expire their key when: an abort from the NPAC occurs on an active	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.			

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
		association. • an accessDenied error message is returned. • a key change is desired. This change request is related to the Release 1 change order NANC 112.						
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 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(112)),	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.			

	Deleted Change Orders							
Chg	Orig. /	Description	Priority	Category	Final Resolution			
Order	Date							
#								
		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						
NANG	MOI	Strings".	D 1'	EDC				
NANC 132	MCI 8/5/97	Update FRS Data Models	Pending Delete on	FRS	Upon further review no changes to the data models could be identified by the CMA.			
132	0/3/9/	Several issues found in testing that had to do with data	8/22/97		dentified by the CMA.			
		fields - what constitutes valid data in all fields, both those	0, ==, , ,		This change order will be left open for further review by the			
		that may or may not be required. In order that we do not			initiator.			
		continue to stumble across these things one at a time during						
		testing or as new SPs come on board, it has been requested			Deleted by initiator.			
		that the data models be updated. They should be updated to reflect what constitutes valid data for each field.						
NANC	Bellcore	LNPType in SV Object Creation Notification	Medium	IIS/ASN.1/	This is an "OLD" Release 2.0 change order, that has been moved			
148	8/25/97	It has been requested that "LNP Type" be added to the	Wicaram	GDMO	into the "Accepted" category, awaiting prioritization.			
		subscription version object create notifications.						
					Sep LNPAWG (Chicago), no longer needed. Move to Cancel-			
					Pending.			
NANC	AGCS	Subscription Version M-Delete to LSMS – Continued	Delete	FRS/IIS	The current approach has been documented. The current strategy			
150	8/27/97	When a telephone number is being ported, the NPAC	Pending as of		is in place due to the LSMS wanting to manage their own history.			
		currently sends a request to the LSMS to create a new	10/10/97					
		subscription version object. The LSMS is expected to	10/10/57					
		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.						
NANC	Bellcore	Download file creation by SP for application of Filters	Medium	FRS	The team has agreed to this functionality.			
153	10/1/97	It has been requested that subscription version down load	ivicalulii	110	The count has agreed to this functionality.			
	/	files used for disaster recovery be created by specification			Sep LNPA-WG (Chicago), this is a duplicate of 246, and			
		of SPID so that the SP's filters can be applied. This would			therefore, is being deleted.			
		create a file only for all the NPA-NXXs the service provider						
NANG	NIANG	is interested in.	T	EDC				
NANC 167	NANC 10/1/1997	ILL 3 Clarification	Low	FRS	This clarification to ILL 3 has been combined with ILL 3.			
10/	10/1/199/			<u> </u>	Closed.			

	Deleted Change Orders						
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		
NANC 168	AGCS 10/18/97	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. SOA Bulk Download Files NPAC 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, cancelpending, active, and disconnect pending. Sep LNPAWG (Chicago), no longer needed. Move to Cancel-		
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	Pending. 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 12 th and 13 th . 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	Medium	IIS	The group has accepted this change. Submission to the LLC's has occurred.		

	Deleted Change Orders						
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution		
		for NANC 146 as follow: AddressInformation ::= CHOICE { ContactInfo [0] SEQUENCE {			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 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	Bell	Unique Cancellation Notifications	Med /	FRS/IIS	Func Backwards Compatible: NO		

	Deleted Change Orders							
Chg	Orig. /	Description	Priority	Category	Final Resolution			
Order #	Date							
NANC 199	Atlantic 2/23/98 & Sprint 8/10/98 AGCS 2/28/98	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.	High	FRS/IIS	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. 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. Func Backwards Compatible: NO			
204	T&O	Subscriber Name, Address, City, State, Zip have been						

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
NANC	3/2/1998 NANC	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 Wireless Porting before Due Date	Delete	FRS/IIS	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.			
205	T&O 3/2/1998	Wireless 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.	Pending 4-17-1998	IIS	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. Lockheed did not implement this functionality. It would be a			
208	T&O	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	Pending 4-17-1998	115	large work effort to 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			

	Deleted Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution			
NANC 212	BellSouth 4/21/1998	Activation Timestamp in M-GET Filter IIS 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	needed. The change order is delete pending 4/3/1998. 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 "prefilter" 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).			
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	Moved to Pending Delete, per BST (Ron Steen), on 7/15/98. 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		IIS/FRS	This change order is a different way of representing the data for Filters, and should be analyzed in conjunction with any			

		Deleted (Change O	rders	
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution
NANC 235	ESI 9/3/98	The current ASN.1 definitions for the value of the IsmsFilterNPA-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-filter [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) Modification of NANC 204 for GDMO Change A new ASN 1 structure was added which affects the GDMO	Low		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. Func Backwards Compatible: NO
235	9/3/98	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 ??};			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.

	Deleted Change Orders				
Chg Order	Orig. / Date	Description	Priority	Category	Final Resolution
#					
		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 }			
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.		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 NPANXX 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)

	Deleted Change Orders					
Chg Order	Orig. / Date	Description	Priority	Category	Final Resolution	
#	Dute					
		(continued)				
NANC 245 (con't)	Continued	 Arguments against allowing the subsequent port: One or more SP's networks are out of sync, and the should clean up the failed SP List before allowing mactivity on the TN(s). The NPAC will need to add additional functionality the Failed SP List for the currently active SV, when subsequent Activate is sent by the New SP. This is prevent the re-send or re-sync from being sent to the SP. If the Failed SP List is not cleaned up, then a re-send creates meaningless traffic over the NPAC SMS to I Interface, for the modify active request (since this S migrated to "Old"). NPAC SMS considerations: If the subsequent port is allowed, the Failed SP List zeroed out (on the old SV), once the new SV gets active Provider should only be allowed on the F List for 1 (one) SV for any given TN. 	to clean up a needed to e discrepant d or re-sync Local SMS V has		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 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			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.	

		Deleted (Change O	rders	
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution
		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.			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.

Summary of Change Orders

Release #	Change Orders	Backwards Compatible
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 Problem	
	NANC 10 - SystemType ASN.1	
	NANC 11 - Business Day Default rewording	
	NANC 12 - Conflict Restriction Window Tunable Clarification/Modification	
	NANC 13 - Notification of T2 expiration to Old SP	
	NANC 14 - GDMO Document References	
	NANC 15 - FRS GDMO Definition Correction	
	NANC 16 - Retry wording clarification in IIS	
	NANC 17 - ASN.1 addition of word EXPLICT for tagging	
	NANC 18 - ASN.1 Comment for NetworkDownloadCriteria	
	NANC 19 - Rewording of M-CANCEL-GET note	
	NANC 20 - Addition of InpSpecificInfoParameter	
	NANC 21 - IIS Section 6 note modification	
	NANC 22 - IIS 6.5.6 Flow modification	
	NANC 23 - IIS 6.2.1 Flow Modification	
	NANC 24 - IIS 6.5.1.2/6.5.1.3 Flow Modification	
	NANC 25 - IIS 6.5.4.1/6.5.4.2 Flow Modification	
	NANC 26 - IIS 6.5.5.2 Flow Modification	
	NANC 27 - IIS servProvLRN-Behaviour Modification	
	NANC 28 - IIS subscriptionVersionBehavior Modification	
	NANC 29 - IIS subscriptionLNPType Behavior Modification	
	NANC 30 - Attribute Behavior Updates	
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