NANC CHANGE ORDER IMPLEMENTED
(Rev: 26 – 02/01/1999)

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Release 0.1

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 1	NANC Meeting 1/27/97	Document Title Changes The title of the NANC FRS created from the Illinois FRS version 1.4 should be "North American Numbering Council (NANC) Functional Requirements Specification". The subtitle should remain the same. The revision number should be "Draft Version 0.1". All document footers will be updated appropriately. The Graphic of Illinois will also be removed from the title page.	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.		
NANC 2	NANC Meeting 1/27/97	Preface on Number Scheme In section 0.2 a notation on the numbering scheme will be put in to indicate that (at least for the time being) Illinois number has been adopted with an explanation of how the number scheme has been maintained.	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.		
NANC 3	NANC Meeting 1/27/97	Removal of Unnecessary Illinois references In the Introduction section 1, the first sentence, the following text should be removed "in Illinois LATA 358". CN1-1 should have the following words removed "within Illinois LATA 358" A global search will be done in the document to insure there are no other references that should be removed.	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.		
NANC 4	NANC Meeting 1/27/97	Removal of Assumptions Assumption A10-1, A10-2, and A10-3, which are specific to	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.		

		Release 0.1 Implemented/Closed Change Orders						
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						NPAC	**LSMS SOA**	
		Illinois, should be deleted in section 1.5 and in section 10.2.						
NANC 5	NANC Meeting 1/27/97	Removal of Section 1.7 Related Publications Section 1.7 should be removed due to the fact that it is incomplete and is a duplicate of the related publication section after the cover page.	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.			
NANC 6	NANC Meeting 1/27/97	Addition of R5-19.2 and RR5-6.9 The following requirements will be added in section 5 to support the addition of Illinois Change order 132 described as below: R5-19.2 - Create Subscription Version - Old Service Provider ID Validation - No Active Subscription Version NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS. RR5-6.9 - Create "Intra-Service Provider Port" Subscription Version - Old Service Provider ID Validation - No Active Subscription Version NPAC SMS shall validate that the old Service Provider in the create message is the Service Provider to which the TN's NPA-NXX is assigned (as stored in the NPAC SMS service provider data tables) if there is currently no active Subscription Version for the TN in the NPAC SMS.	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.			
NANC 7	NANC Meeting	Removal of "NOT A SYSTEM REQUIREMENT"	Low	FRS	Changes were implemented in the first release, version 0.1 of the NANC FRS.			

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
	1/27/97	As a global change in the document, the following text associated with requirements should be removed "NOT A SYSTEM REQUIREMENT – CANNOT BE TESTED"					
NANC 8	NANC Meeting 1/27/97	Deletion/Modification of Requirements in Section 10

The following requirements should be removed in section 10.2 and 10.3:

R10-15, R10-17, RN10-1

Requirement R10-16 should have the words "sized for 30 Service Providers" replaced with "sized for the region they service". | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. | | |
| NANC 9 | NANC Meeting 1/27/97 | Removal of all Requirements in Sections 6.1 and 6.2

Requirements in sections 6.1 and 6.2 should be removed as duplicates of functionality specified in other sections of the FRS and the IIS. | Low | FRS | Changes were implemented in the first release, version 0.1 of the NANC FRS. | | |

Table title: **Release 0.1 Implemented/Closed Change Orders**

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
ILL 181	Illinois 2/24/97	Key's for EACH Service Provider Interface Requirement R7-111.6 in FRS 0.1 states that "key initiation [is] to be requested on a per Service Provider basis". This has been interpreted that one key be supported per Service Provider. The NPAC SMS under this requirement would expect one key from a key list for all associations for a Service Provider regardless of whether it is a SOA or LSMS association. This means that the LSMS and SOA systems would have to coordinate with one another to make a key change. It has been requested that keys be treated independently at the presentation layer for an association. By using the presentation layer (or by PSAP address) support of a key, SOAs and LSMS systems could have unique keys. In addition, if an LSMS, for instance, is made up of two processes, one supporting network subscription data download and the other supporting query; they could have unique keys.	High	FRS/IIS	Changes were made in the 1.0 release of the IIS and FRS. This change order is also addressed in Rel 1.9.		
IL 188	Illinois 2/24/97	FRS RR5-38.3 Consistency Problem RR5-38.3 in FRS 0.1 states that the NPAC SMS will only allow re-sends on subscriptions with a failed or partial fail status. It conflicts with the following two requirements (RR5-38.4&5) that deal also with resends of failed/partially failed modify and disconnect broadcasts. Requirement RR5-38.3 should be modified to state that we would only allow resends of subscriptions that have failed	Medium	FRS	Changes were made in the 1.0 release of the FRS.		

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		LSMSs associated with the subscription's last operation. This will circumvent the problem of using status to determine if we can resend an SV.					
NANC 10	Perot Systems 3/2/97	SystemType ASN.1 In the ASN.1 for SystemType there is an enumerated type of soa-and-local-sms. This type is present to allow SOA and LSMS system functions to be performed over the same association. It has been requested that support for this enumerated type be optional for the NPAC SMS vendor.	Medium	IIS	IIS modifications were made in the 1.0 release.		
NANC 11	NANC meeting 3/5/97	Business Day Default rewording Requirement RR3-13.2 should be reworded in FRS 0.1 to be more generic for regional support as follows: NPAC SMS shall default the Business Day Start Time tunable parameter to the value specified by the contracting region. The default value in 11-1 should also be updated to be TBD.	Medium	FRS	FRS was modified in the 1.0 release.		
NANC 12	NANC meeting 3/5/97	Conflict Restriction Window Tunable Clarification/Modification It has been clarified by NANC that the intent of the conflict restriction window was that it was to be business hours not calendar hours. The following requirements would be changed as follows: RR5-42.2 NPAC SMS shall provide a Conflict Restriction Tunable	Medium	FRS	FRS was modified in the 1.0 release.		

Release 1.0 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		which is defined as the time on the business day prior to New Service Provider due date that a pending Subscription Version can no longer be placed into conflict state by the old Service Provider. RR5-42.4 NPAC SMS shall default the Conflict Restriction Window Tunable Parameter to 12:00 noon. Appendix C would also be updated to have a default value of 12:00, a unit of HH:MM, a valid range of 00:00-24:00, and a definition as follows: "The time on the business day prior to the New Service Provider due date that a subscription version is no longer allowed to be set to conflict by the Old Service Provider."					
NANC 13	NANC meeting 3/5/97	Notification of T2 expiration to Old SP There is currently no notification defined in the FRS or IIS to be sent to the old SP when the final concurrence timer (T2) expires. It has been requested that a final concurrence timer expiration notification called SubscriptionVersionOldSPFinalConcurrenceWindowExpiration will be sent to the old SP upon expiration of T2. A requirement would be added as follows: R5-23.3.1 Old Service Provider Final Concurrence Timer Expiration Notification NPAC SMS shall upon expiration of the Final Concurrence Timer send a notification to the old service provider via the	Medium	FRS / IIS / ASN.1/ GDMO	FRS and IIS were modified in the 1.0 release.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		SOA to NPAC SMS interface to inform them of the timer expiration. An additional notification and log record (lnpLogOldSPFinalConcurreneWindowExpirationRecord) for the notification will be added to the IIS.					
NANC 14	Perot 3/5/97	GDMO Document References All references to "Rec X.721…" should be changed to "CCITT Rec X.721…" and replaced "Rec. X.660 | ISO/IEC 9834-1 : 1992" should be changed to "CCITT Rec. X.660 (1992) | ISO/IEC 9834-1 : 1992". In addition, before each word in "REGISTERED AS {" it should have "LNP-OIDS." So for instance: REGISTERED AS {lnp-objectClass 4}; Would become: REGISTERED AS {LNP-OIDS.lnp-objectClass 4};	Low	IIS / GDMO	FRS and IIS were modified in the 1.0 release.		
NANC 15	Perot 3/5/97	FRS GDMO Definition Correction There are several places in the RFP where GDMO is defined as "Generalized Definition of Managed Objects" such as in R6-30.1 and in the Glossary. This should be corrected to be "Guideline for the Definition of Managed Objects".	Low	FRS	FRS was modified in the 1.0 release.		
NANC 16	Perot 3/5/97	Retry wording clarification in IIS The following sections should have wording modifications to clarify that the retry is at an application level. Section 5.2.3, the third paragraph that appears after the second set of bullets, second sentence the sentence that	Low	IIS	IIS was modified in the 1.0 release.		

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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, ..."					
NANC 17	Perot 3/5/97	ASN.1 addition of word EXPLICT for tagging The word EXPLICIT will be added preceding the tags in the ASN.1. This change would necessitate a recompile but would not impact vendor code.	Low	IIS / ASN.1	IIS was modified in the 1.0 release.		
NANC 18	Perot 3/5/97	ASN.1 Comment for NetworkDownloadCriteria A comment will be added to the ASN.1 for NetworkDownloadCriteria as follows to indicate that we are aware that double tagging is being done for the elements in chc2: "A decision was made by NANC to leave this structure a CHOICE of CHOICEs instead of using one CHOICE to simplify tagging"	Low	IIS / ASN.1	IIS was modified in the 1.0 release.		
NANC 19	Perot 3/5/97	Rewording of M-CANCEL-GET note The note on page 9 of IIS 1.4 in section 2.1 would be reworded as follows: Note: The M-CANCEL-GET primitive may not be supported in some NPAC SMS implementations due to the	Low	IIS	IIS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
		fact that this functionality was not determined necessary for the interface defined.					

NANC 20	Perot 3/5/97	Addition of lnpSpecificInfoParameter
		
		Addition of an lnpSpecificInfoParameter parameter was proposed to the GDMO to inform a manager that the lnpSpecificInfo can appear with processing failures for operations. Addition of this parameter would necessitate a recompile but would not impact vendor code. The parameter is as follows:
		
		LnpSpecificInfoParameter PARAMETER
		    CONTEXT SPECIFIC-ERROR;
		    WITH SYNTAX LNP-ASN1.LnpSpecificInfo;
		    REGISTERED AS
		        {LNP-OIDS.lnp-parameter 2};
			Low	IIS / GMDO	IIS was modified in the 1.0 release.		

NANC 21	Perot 3/5/97	IIS Section 6 note modification The note on page 53 of IIS 1.4 in section 6.1 should be modified as follows: NOTE: The order of messages in the message flows must be followed by the NPAC SMS, SOA, and LSMS systems with the exception of the return of the M-EVENT-REPORT confirmations.	Low	IIS	IIS was modified in the 1.0 release.		
NANC 22	MCI	IIS 6.5.6 Flow modification In IIS 1.4 flow scenario 6.5.6- -- it is specified that a 'resource Limitation' error will be returned. This error code should be complexityLimitation.	Low	IIS	IIS was modified in the 1.0 release.		
NANC 23	Perot Systems	IIS 6.2.1 Flow Modification	Low	IIS	IIS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
	3/17/97	In flow 6.2.1 in IIS 1.5, serviceProvID is not an attribute of subscriptionAudit and should be removed and replace with subscriptionAuditRequestingSP.					
NANC 24	Perot Systems 3/17/97	IIS 6.5.1.2/6.5.1.3 Flow Modification In IIS 1.5 flows 6.5.1.2 and 6.5.1.3 the subscriptionNewSP-AuthorizationTimeStamp should be removed from the text in step c.	Low	IIS	IIS was modified in the 1.0 release.		
NANC 25	Perot Systems 3/17/97	IIS 6.5.4.1/6.5.4.2 Flow Modification In IIS 1.5 flows 6.5.4.1 and 6.5.4.2 step b should have the LNPType removed from the verbiage and should indicate a range of TNs can be specified. The second sentence in step b should begin as follows: "The M-ACTION specifies either the subscriptionVersionId, or subscription TN or range of TNs, and also has…."	Low	IIS	IIS was modified in the 1.0 release.		
NANC 26	Perot Systems 3/17/97	IIS 6.5.5.2 Flow Modification In IIS 1.5 flow 6.5.5.2 step c should read "subscription version TN or subscription version ID" instead of "and".	Low	IIS	IIS was modified in the 1.0 release.		
NANC 27	Perot Systems 3/17/97	IIS servProvLRN-Behaviour 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.		

Release 1.0 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 28	Perot Systems 3/17/97	IIS subscriptionVersionBehavior Modification In IIS 1.5 the susbcriptionVersionBehavior should be modified as follows: In the third paragraph should have the word serviceProvVersionId replaced with subscriptionVersionId. In the sixth paragraph should have download-request removed as a value for subscriptionDownloadReason.	Low	GDMO TEXT ONLY	IIS was modified in the 1.0 release.		
NANC 29	Perot Systems 3/17/97	IIS subscriptionLNPType Behavior Modification In IIS 1.5 the second paragraph referring to log records should be removed since the subscriptionLNPType is not contained in any log record.	Low	GDMO TEXT ONLY	IIS was modified in the 1.0 release.		
NANC 30	Perot Systems 3/17/97	Attribute Behavior Updates SubscriptionOldSP, subscriptionOldSP-AuthorizationTimestamp and subscriptionOldSP-Authorization attributes should have the last sentence in their behavior modified to read "…for a new SP create request notification…". SubscriptionNewCurrentSP and subscriptionNewSP-CreationTimeStamp attributes should have the last sentence in their behavior modified to read "…for a old SP concurrence request notification…".	Low	GDMO TEXT ONLY	IIS was modified in the 1.0 release.		
NANC 31	Perot Systems 3/17/97	IIS subscriptionOld/NewSP-DueDate Behavior Modification In IIS 1.5 the behavior for subscriptionOldSP-DueDate and	Low	GDMO TEXT ONLY	IIS was modified in the 1.0 release.		

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Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
		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."					
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 The NPAC SOA Low-tech interface requirements as agreed upon in the NANC conference call on 3/18/97 will be included in the FRS.	Low	FRS	FRS was modified in the 1.0 release.		
NANC 37	Lockheed Martin 3/18/97	Primitive Error List Modification The following primitive errors should be removed from exhibit 94 in appendix A of the IIS 1.5 because they will not be supported in the NPAC SMS due non-support by some CMIP toolkits: resourceLimitation invalidOperation invalidOperator	Low	IIS	IIS was modified in the 1.0 release.		
NANC	MCI	IIS Flow 6.4.1.6 Clarification	Low	IIS	IIS was modified in the 1.0 release.		

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

Release 1.0 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort NPAC	Level of Effort LSMS SOA
38	3/20/97	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...'.					
NANC 39	MCI 3/20/97	Section 4.2.2 Correction

Section 4.2.2 'Filtering' in IIS 1.5 indicates 'OR and NOT filter support are not required
for the Local SMS or the NPAC SMS'. This contradicts section 5.3.4.2 'SOA resynchronization' which indicates 'a query should be launched based upon the new OR old service provider equal to
the SOA service provider...'.

The bullet should read: "OR and NOT filter support is not required for the Local SMS.". A new bullet should be added that reads "NOT filter support is not required for the NPAC SMS". | Low | IIS | IIS was modified in the 1.0 release. | | |
| NANC 40 | MCI 3/20/97 | SOA flows for NPA-NXX filter management

In IIS 1.5 section 6.6 (NPA-NXX filters) additional flows should be added to reflect SOA side capabilities for creation, deletion and query of NPA-NXX filers by the SOA to be consistent with the FRS requirements RR3-5 through RR3-9. | Low | IIS | IIS was modified in the 1.0 release. | | |
| NANC 41 | AT&T 3/20/97 | SubscriptionModifyData ASN.1 Tagging Correction

In the ASN.1 for IIS 1.5 the SubscriptionModifyData tags start with 2. It should start with 0. | Low | IIS/ASN.1 | The ASN.1 and IIS were modified in the 1.6 release. This is a recompile only change. | | |
| NANC | AT&T | Documentation of lnpLocal-SMS-Name Value | Low | IIS | IIS was modified in the 1.0 release. | | |

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						NPAC	LSMS SOA
42	3/20/97	The value of the lnpLocal-SMS-Name attribute is spid+lnpNPAC-Name. For AT&T this would be 7421-Midwest Regional NPAC SMS". A local SMS is to instantiate the lnpLocal-SMS object in the MIT. For each region that the LSMS interacts, it must create a lnpLocal-SMS object with the appropriate lnpLocal-SMS-Name value. Since the lnpLocal-SMS-Name consists of the lnpNPAC-Name attribute, the NPAC SMS name values should be identified and documented in the IIS. This should added in a new section 4.3 titled lnpLocal-SMS-Name and lnpNPAC-SMS-Name Values. The body text should be as follows: The table below (could put reference here) shows the values to be used for all currently identified NPAC regions for lnpNPAC-SMS-Name in the lnpNPAC-SMS object. The lnpLocal-SMS-Name for the lnpLocal-SMS object will be the service provider id followed by a dash and the lnpNPA-SMS-Name (e.g. 9999-Midwest Regional NPAC SMS).			Region names will be those assigned and used by the architecture.		

NANC 42 (cont.)		NPAC SMS Region lnpNPAC-SMS-Name
		------------------------- ----------------------------------
		Mid-Atlantic Mid-Atlantic Regional
		                     NPAC SMS
		Mid-West Mid-West Regional
		                     NPAC SMS
		Northeast Northeast Regional
		                     NPAC SMS
		Southeast Southeast Regional					

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						NPAC	LSMS SOA	
		NPAC SMS Southwest Southwest Regional NPAC SMS Western West Regional NPAC SMS West Coast West Coast Regional NPAC SMS					
NANC 50	MCI 3/27/96	Flow 6.5.1.6.2 Clarification The first sentence should be modified to state: "This scenario shows no response within "Service Provider Concurrence Window" by the old service provider SOA.	Low	IIS	IIS was modified in the 1.0 release.		
NANC 52	MCI 3/27/96	Flow 6.5.2.1, 6.5.2.3, and 6.5.3.1 Modification Step a. should be modified for flows 6.5.2.1, 6.5.2.3, and 6.5.3.1 to indicate how the version to be modified or canceled is identified. The first sentence of step a in flow 6.5.2.1 should state: "Action is taken by current service provider to modify an active subscription version by specifying the TN, TN range, or version id of the active superscription version to be modified and the data to be modified." The first sentence of step a in flow 6.5.2.3 should state: "Action is taken by a service provider to modify a subscription version by specifying the TN, TN range, and optionally the version status or by specifying the version id and of the superscription version to be modified and the data to be modified."	Low	IIS	IIS was modified in the 1.0 release.		

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						NPAC	**LSMS SOA**	
		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.						
NANC 53	MCI 3/27/97	Chapter 10 Modifications

In the version status interaction diagram and description, all references to "cancel" as a state should be "canceled". | Low | IIS | IIS was modified in the 1.0 release. | | | |
| NANC 54 | AT&T 3/26/97 | Definition of Cause Code Values

Cause code values should be defined in the FRS.
The defined values are as follows:

The values less than 50 were reserved for SMS NPAC internal use.

Other defined values are:

0 – NULL (DO NOT MODIFY)
1 -   NPAC automatic cancellation
50 -   LSR Not Received
51 -   FOC Not Issued
52 -   Due Date Mismatch
53 -   Vacant Number Port
54 -   General Conflict | Low | FRS | FRS was modified in the 1.0 release. | | | |
| NANC 56 | Perot 3/27/97 | Flow 6.5.2.3 and 6.5.2.4 corrections

IIS 1.5 flows 6.5.2.3 Subscription Version Modify Prior to Activate Using M-ACTION and 6.5.2.4 Modify Prior to Activate Using M_SET show a status attribute value | Low | IIS | IIS was modified in the 1.0 release. | | | |

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		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.					
NANC 57	AT&T 3/27/97	Digital Signature Clarification The IIS 1.5 in section 5.2.1.10 specifies the contents of the digital signature in LnpAccessControl to be: "...the systemId, the systemtype, the userId, the cmipDepartureTime, and sequenceNumber without separators between those fields or other additional characters. This data " The actual encoding of the data before hashing and encrypting is not specified. For example, the systemtype is an enumerated type with integer values. The size and byte order of integers on my system may differ from those on the NPAC system. The following sentence will be added in section after the sentence referenced above: Before hashing and encryption, character fields are ASCII format and integer fields are 32 bit big endian.	Low	IIS	IIS was modified in the 1.0 release.		

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						NPAC	LSMS SOA
NANC 51	3/26/97 Lockheed Martin	OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal.	Medium	IIS/ASN.1	OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal.		
NANC 58	Lucent 4/1/97	Data Download for a Modify All values are sent in the download for a modified object. The GDMO behavior should be modified for the lnpDownload action to add the following sentence to the end of the first paragraph in the action post condition behavior: "All data for objects that have been modified is downloaded not just the information that was changed."	Low	IIS/GDMO	IIS modifications will be made in the 1.1 release.		

NANC 59	AT&T 4/11/97	Old SP Concurrence Request Notification
		
		The GDMO definition for the subscriptionVersionOldSP-ConcurrenceRequest is slightly different than the ASN.1 definition and should be corrected.
		
		The attribute ids shown in the notification are as follows:
		  AND ATTRIBUTE IDS
		    tn subscriptionTN,
		    version-id subscriptionVersionId,
		    service-prov-id subscriptionNewCurrentSP,
		    service-prov-due-date
		      subscriptionNewSP-DueDate,
		    service-prov-creation-time-stamp
			Low	IIS/GDMO/ ASN.1	The ASN.1 should be updated to state service-prov-authorization-time-stamp to be service-prov-authorization-creation-time-stamp. The GDMO for the subscriptionVersionOldSP-ConcurrenceRequest should be modified to replace service-prov-creation-time-stamp with service-prov-authorization-creation-time-stamp. The GDMO for subscriptionVersionNewSP-CreateRequest should have service-prov-authorization-time-stamp should be replaced with service-prov-authorization-creation-time-stamp. The service-prov-authorization should also be		

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		subscriptionNewSP-CreationTimeStamp, access-control accessControl;
		
		However the ASN.1 contains the following:
		VersionCreateConcurrenceRequest ::= SEQUENCE {
		    tn PhoneNumber,
		    version-id LnpKey,
		    service-prov-id ServiceProvId,
		    service-prov-due-date GeneralizedTime,
		    service-prov-authorization-time-stamp
		        GeneralizedTime
		    access-control LnpAccessControl
		}
					replaced with service-prov-old-authorization in the subscriptionVersionNewSP-CreateRequest.
					
					This change will be made in release 1 per the NANC 4/18 conference call as part of IIS 1.1.		

NANC 60	Perot Systems 4/3/97	Range Operation 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	Lockheed	Filter NPA-NXX Object Behavior	Low	IIS/GDMO	IIS modifications will be made in the 1.1		

Release 1.1 Implemented/Closed Change Orders							
Chg Order #	**Orig. / Date**	**Description**	**Priority**	**Category**	**Final Resolution**	**Level of Effort**	
						NPAC	**LSMS SOA**
62	Martin Team 4/3/97	Description/Modification The description for the LSMS filter object is inconsistent in the IIS. Exhibit 6 shows the object is available for modification from the SOA. There are flows for the SOA in the NANC 1.0 release. However, exhibit 7 and the lnpFilterNPA-NXX object behavior conflict with the sections mentioned above and are inconsistent with the requirements. The direction (to/from) column for the filter Exhibit 7 should be updated for LSMS Filter NPA-NXX Create/Delete/Query to show from SOA in addition to from LSMS. The GDMO should be modified to state the following: NPAC SMS Managed Object used for the Local SMS to NPAC SMS interface and the NPAC SMS to SOA interface. All attributes are read only. Once, created the lsmsFilterNPA-NXX object can be deleted via the Local SMS or SOA. The lsmsFilterNPA-NXX-ID is specified by the NPAC SMS. The Local SMS or SOA can M-DELETE, M-CREATE, and M-GET the lsmsFilterNPA-NXX objects on the NPAC SMS. (Network Data Association Function).			release.		
NANC 63	Lockheed Martin Team	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	Low	IIS	IIS modifications will be made in the 1.1 release.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
	4/3/97	additional steps to show the subscriptionVersionNewNPA-NXX notification being sent to and confirmed by the SOA systems.					
NANC 64	AT&T 4/2/97	Flow 6.5.1.1/6.5.1.2 objectCreation Notification Clarification The following should be added to step f of flow 6.5.1.1 to clarify the attributes sent in an objectCreation notification: The following attributes are sent in the objectCreation notification: subscriptionTN subscriptionOldSP subscriptionNewCurrentSP subscriptionOldSP-DueDate subscriptionOldSP-Authorization subscriptionOldSP-AuthorizationTimeStamp subscriptionStatusChangeCauseCode (if set to FALSE) subscriptionVersionStatus The following should be added to step f of flow 6.5.1.2 to clarify the attributes sent in an objectCreation notification: The following attributes are sent in the objectCreation notification: subscriptionTN subscriptionOldSP subscriptionNewCurrentSP subscriptionNewSP-CreationTimeStamp subscriptionVersionStatus	Low	IIS	IIS modifications will be made in the 1.1 release.		

Release 1.1 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		subscriptoinNewSP-DueDate					
NANC 65	AT&T 4/2/97	Flow 6.5.1.3/6.5.1.4 attributeValueChange Notification Clarification The following should be added to steps f and h in flow 6.5.1.4 to clarify the attributes sent on the attributeValueChangeNotification: The following attributes are sent in the attributeValueChange notification: subscriptionOldSP-DueDate subscriptionOldSP-Authorization subscriptionOldSP-AuthorizationTimeStamp The following should be added to steps f and h in flow 6.5.1.3 to clarify the attributes sent on the attributeValueChangeNotification: The following attributes are sent in the attributeValueChange notification: subscriptionNewSP-DueDate subscriptionNewSP-CreationTimeStamp	Low	IIS	IIS modifications will be made in the 1.1 release.		
NANC 66	Lockheed Martin Team 4/11/97	Flow 6.5.5.2 Modification Flow 6.5.5.2 should show the subscriptionVersionStatusAttributeValueChange notifications to the old and new service providers for the status changing from conflict to pending.	Low	IIS	IIS modifications will be made in the 1.1 release.		
NANC 67	Lockheed Martin	Flow 6.5.4.6 Modification	Low	IIS	IIS modifications will be made in the 1.1 release.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
	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.					
NANC 69	MCI 4/14/97	NANC 1.0 and IIS discrepancies resulting from Change Order #52 The FRS 1.0 has not been updated (in requirements R5-26, R5-35, R5-62, and R5-69) to reflect the ability to specify by range of TNs.	Medium	FRS 1.1	The FRS should be updated in release 1.1 to be consistent with the IIS regarding change order #52.		
NANC 70	MCI 4/14/97	FRS R5-26 Modify Subscription Version – Version Identification The FRS R5-26 does not reference disconnect-pending as in IIS flow 6.5.2.3.	Medium	FRS 1.1	The FRS requirement R5-26 should be updated in release 1.1 to include disconnect-pending.		
NANC 71	AT&T 4/13/97	IIS key size specification The IIS 1.0 section 5.2.1.5 does not specify a maximum key size.	Low	IIS	The IIS should be updated in release 1.1 to reflect a maximum key size of 2048, based upon commercial product limitations. It should also be updated to accurately reflect that the key size can range from 600 to 2048.		
NANC 72	Lockheed Martin Team 4/13/97	Scoped/Filtered GET of Network Data from SOA Scoping and filtering should be from serviceProvNetwork, not lnpNetwork in the IIS flow 6.4.2.11.	Medium	IIS	The IIS should be updated in release 1.1 to reflect that filtering should be done from serviceProvNetwork and not lnpNetwork.		
NANC 73	Pacific Bell 4/14/97	Universal Time format The universal time format should be specified in section 5.2.1.6 CMIP Departure Time of the IIS. Universal time is used in the interface for timestamps and is in the format of: YYYYMMDDHHMMSS.0Z.	Low	IIS	The IIS should be updated in release 1.1 to include the universal time stamp format.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
NANC 74	Perot 4/7/97	GDMO for subscriptionVersionNewSP-CreateBehavior BEHAVIOUR The second sentence does not include the scenario that creates can be performed when there is no currently active subscription version. The IIS GDMO subscriptionVersionNewSP-CreateBehavior BEHAVIOUR second sentence should be updated to read "Creates can only be performed provided there is only one currently active subscription or no subscription version in the NPAC or an action failure will be returned."	Medium	IIS/GDMO	The IIS will be updated for version 1.1.		
NANC 75	Perot 4/7/97	GDMO for subscriptionVersionModifyBehavior BEHAVIOUR Paragraph 8 incorrectly states that a disconnect-pending subscription version can be modified to cancel pending. This is not a valid state transition. It should read "A new service provider can modify the subscriptionVersionStatus for a pending subscription version to cancel pending."	Low	IIS/GDMO	The IIS will be updated for version 1.1.		
NANC 76	Perot 4/7/97	Purpose of subscriptionOldSP-DueDate There is no explicit purpose stated for subscriptionOldSP-DueDate. A sentence should be added to subscriptionVersionNPAC-Behavior BEHAVIOUR at the beginning of paragraph 33 to read "The subscriptionOldSP-DueDate and subscriptionNewSP-DueDate must match."	Low	IIS/GDMO	The IIS will be updated for version 1.1.		
NANC 78	Lockheed Martin Team 4/22/97	OID usage and 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.	Medium	IIS/GDMO	Add an attribute definition for NpacAssociationUserInfo to be standards compliant. The OIDs would be documented in the IIS.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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
• 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 ={lnp-attribute 1} = 1:3:6:1:4:1:103:7:0:0:2:1 | | | New ASN.1 and GDMO are available on the web as of 5/2. The IIS will be updated in the 1.1. | | |

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
ILL 142	Illinois 1/9/97	MOC Definition Updates The MOCS should be reviewed for consistency to insure all information is correct. For instance that all defined or inherited values are present and that set-by-create is specified properly.	Medium	IIS	Changes will be made in the 1.0 release of the IIS. This change did not get implemented in IIS 1.5 due to time needed for procurement of a modeling tool to generate these tables. This update was made in the 1.2 release of the IIS.		
NANC 84	Lockheed Martin Team 4/30/97	LnpNetwork behavior update The lnpNetworkName attribute provides an identifier for the lnpNetwork object. The behaviour currently states the valid values are "lnpName" for the NPAC SMS to Local SMS Interface. It should be modified to be "lnpNetwork".	Low	IIS/GDMO	This change will be made in the IIS 1.2.		
NANC 85	Lockheed Martin Team 4/30/97	Flow 6.5.5.1 Modification The IIS flow for conflict (section 6.5.5.1) is missing the message for the modification of the old SP authorization flag to false when an SV is put into conflict. An additional M-EVENT-REPORT message should be sent to both the old and new SP SOAs in the top section of the flow diagram. These steps would be like steps o-r showing the authorization flag set to false after step g.	Low	IIS	This change would be made in the IIS 1.2.		
NANC 86	AT&T 4/30/97	Unique NPAC customer Ids It has been requested that unique NPAC customer ids be	Low	IIS	This change would be made in the IIS 1.2. Mid-Atlantic – 0001		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		documented in the IIS with the regional names in section 4.			Midwest – 0000 Northeast – 0002 Southeast – 0003 Southwest – 0004 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.		

Release 1.2 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
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 defaults to baseObject Scope), the following statement is in error: "In addition, the SOA to NPAC SMS does not support scoping of CMIP operations of any type for the following objects: - lnpNPAC-SMS - lnpServiceProvs" "Scoping" means scope other than baseObject Scope. It should be reworded as follows: "NPAC SMS is not required to support Scope other than baseObject Scope for CMIP operations that specify baseManangedObjectClass of one of the following: - lnpNPAC-SMS - lnpServiceProvs"	Low	IIS	This change would be made in the IIS 1.2. This change is being reviewed by the group for discussion on the next call. It was agreed to implement this change on 5/23/97.		

						Level of Effort	
						NPAC	LSMS SOA

Release 1.2 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
NANC 95	Nortel 5/12/97	<u>Reference: IIS NANC 1.1, section 4.2.2</u> The fourth limitation states: "Filter requests must follow the rules of the NPAC SMS.". It has been proposed that the wording be changed to: "All authorization rules apply to scoped and filtered operations." so that in defining the filter rules it is clear what other rules should be followed.	Low	IIS	This change will be made in the IIS 1.2.		
NANC 96	Bellcore 5/12/97	<u>T2 timer not on subcriptionVersionNPAC</u> 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 subscriptionVersionOldSPFinalConcurrenceWindowExpiration.	Low	IIS/GDMO/ASN.1	This change will be made in the IIS 1.2.		

NANC 97	Lockheed Martin Team 5/15/97	<u>OID usage and NpacAssociationUserInfo</u>
		
		Updates to changes made in NANC CO 78
		
		<u>OIDs Used for BIND REQUESTS:</u>
		• CMIPUserInfo OID = 2:1:1
		    (per standards and pp49 IIS1.5)
		• CMIPAbortInfo OID = 2:1:1
		    (per standards and pp51 IIS1.5)
			Medium	IIS/GDMO	Change attribute definition for NpacAssociationUserInfo to be standards compliant.
					
					The IIS will be updated in the 1.2 release.		

NANC 98	Lockheed Martin Team	<u>TSAP data required in FRS</u>	Low	FRS	The FRS updates would be made in release 1.2.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
	5/22/97	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.					
NANC 99	Perot Team 5/21/97	NANC IIS 1.1, section 10 Subscription Version Status Row 2 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 for a Subscription Version created by that Service Provider with a status of conflict that has not been concurred by the other Service Provider."	Low	IIS	Change would be made in NANC IIS 1.2		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		Change the text to read: "The old Service Provider User (or NPAC personnel acting on behalf of the Service Provider) sends a cancellation request for a Subscription Version created by that Service Provider with a status of conflict that has not been concurred by the other new Service Provider."					
NANC 101	Perot Team 5/21/97	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 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort		
						NPAC	LSMS SOA	
NANC 89	MCI 5/1/97	Action Scoping and Filtering Support It should be indicated in the IIS that scopes and filters are not supported on actions. The behavior that is to be used rejection or ignoring of the scoping and filtering should also be indicated.	Low	IIS	This change would be made in the IIS 1.3 or 2.1 MCI and Perot are to follow up on this issue and suggest the final solution. It should be documented that: For messages sent to any object, the scope and filter will be checked to insure it is appropriate for that object class. 1. All M-Actions that relate to subscriptions are targeted to lnpsubscriptions. 2. The ONLY filters allowed by the GDMO for lnpSubscriptions are "equality" and "present" for the single attribute lnpSubscriptionsName. 3. If any one of the above M-Actions is sent to a subscriptionVerisonNPAC object you will get a "no such action" error response from that object. 4. If you send a scoped/filters M-Action that whose scope includes objects of class subscriptionVersionNPAC, you will receive an error "no such action" from each object specified by the filter. This could mean 1 for		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					EVERY subscriptionVersion in the NPAC.		
NANC 103	Lockheed Martin Team 5/31/97	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 section it states 5 minutes. 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.	High	IIS	IIS 1.3 and or 2.1 will be updated.		
NANC 104	AT&T 6/1/97	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	Low	IIS	This information will be added in IIS 1.3 and IIS 2.1.		

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

		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"
		sequenceNumber Integer					

NANC 107	MCI 6/9/97	IIS Discrepancy with R5-25 R5-25 in the FRS indicates the following states will cause an error to be returned if an attempt is made to modify the Subscription Version: sending, failed, partial failure, canceled, cancel pending, old or disconnect pending upon Subscription Version modification. The IIS behavior should be updated in the 3rd paragraph to state the following "Service Providers can modify attributes associated with active, pending, or conflict subscription versions.	Medium	FRS	The FRS 1.3 and FRS 2.1 will reflect this change.		
NANC 111	NANC 6/21/97	Validation of Association 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	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.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.					
NANC 115	Lockheed Martin Team 6/26/97	Country Code Discrepancy There is a discrepancy between the FRS (table 3-3) and the IIS (AddressInformation in the ASN.1). The FRS states that the country code is 2 characters and the IIS states that it is 20 characters.	Medium	FRS/IIS	The FRS will be modified in Release 1.3 and 2.1 to reflect 20 characters in table 3-3.		

							Release 1.4 Implemented/Closed Change Orders			

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 105	AT&T 5/31/97	Download File Formats As with the key exchange file formats it has been requested that Lockheed Martin make available for publication the formats for the data download files so that both vendor implementations can be the same.	High	FRS	This information format will be added in NANC FRS 1.4 and FRS 2.3. Perot has an issue with this due to the fact that they have already implemented this functionality. The service providers have an issue with this because they want the vendor implementations to be the same. Further discussion will occur. Lockheed will provide the file formats to Perot for evaluation. Perot will also provide their formats to Lockheed Martin. The service providers have asked that the Lockheed implementation be adopted in the Perot regions. Service Providers will go to the LLC and the LLC will discuss final resolution with Perot. This change may cause a 1 to 2 week impact. It has been requested that a decision be reached by July 17th. The scripts to generate the download files will be available in the last Perot software load before 10.1.		
NANC 110	NANC 6/13/97	PGP documentation	High	FRS	This information will be added in NANC FRS 1.4 and FRS 2.2		

Release 1.4 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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 ViaCrypt software being used in the Lockheed regions to date. This product has been presented as a more user friendly and manageable. PGP is still the algorithm of choice. Lockheed Martin, the service providers, and their vendors will review the Entrust product. Information can be found on the web at www.entrust.com/products.htm#/amchor91873 Perot and Lockheed have indicated that implementing one product over another would not cause a date slip. It has been requested that resolution be reached by July 17th. Decision should be reached by July 25th. ViaCrypt has been selected by the group.		
NANC 112	NANC 6/21/97	Key Expiration It has been requested that the following strategy should be used and documented in the FRS and IIS for expiration of	High	FRS/IIS	This implementation needs to be discussed further on the 6/27/97 call. Bob's comments will be reviewed and		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.			further discussion will occur at the T&O meeting or at our next change management call. This algorithm will be documented in the Release 1 IIS documentation. Bob's approach will be addressed in another change order as a future enhancement. Requirements will be added for section 7 of the FRS as follows: NPAC Key Change Algorithm NPAC SMS shall upon determination that their key has been compromised change their own private key. Service Provider Key Marked Used/Invalid NPAC SMS shall only mark a Service Provider key as invalid or used when the Service Provider changes their key. Verbiage will also be placed in the IIS.		
NANC 123	Perot 7/17/97	IIS Section 10 Flow Clarification Section 10 of NANC 1.1 shows a state transition from active to old. Transition (#21). The text implies that this is done when all local SMSs respond to the activation or disconnect. This is unclear.	Low	FRS	This change order would be implemented in FRS 1.4 and 2.2.		

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

Release 1.5 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 51	3/26/97 Lockheed Martin	OID Modification The OID values for the IIS currently defined are not legal values. They where temporarily defined until permanent values could be assigned. These values should be modified to be legal.	Medium	IIS / ASN.1	Modification of the ASN.1 to reflect legal OID values. The version of the ASN.1 containing the new OID's will be placed out on the web 4/14/97. The IIS will be updated in the 1.1 release with the new ASN.1. The new OIDs will begin being used by the team on 5/12/97.		
NANC 124	Perot 7/17/97	Null Character Padding During MOC testing, two errors relating to null padded ASN values were discovered: with respect to the BER encoding of generalized time and graphic string. Both of these base types use the Latin-1 (ISO 8859-1) character set which does not include the null character (Rec 208). Specifically, GeneralizedTime was encoded as a length of 23 with the first 17 bytes being the actual time value (YYYYMMDDHHMMSS.0Z) and the remaining 6 bytes being nulls. Since GeneralizedTime shows up in almost every msg. pdu, this violation restricted the number of test cases that could be run. One other case was found relating to the encoding of the zipcode field in the AddressInfo ASN.1 type. This is declared as a graphic string of up to a size of 9 bytes. The first 6 bytes were actually populated by the zipcode value and the remaining 3 bytes were again null padded.	High	IIS	It will be documented in the IIS that "The exact lengths must be specified for ASN.1 data sent across the interface. This will prevent trailing null characters that may not be accepted by some CMIP vendor products."		

Release 1.5 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 126	Nortel	Use of Time in the Due Date It has been determined that the Lockheed System uses the time if specified in the Due Date where the Perot system normalizes the time to 00:00:00.0 when the time is specified. It has been requested that the Lockheed implementation be changed to normalize the time.	Low	IIS	Lockheed will make the change in a future release (see change order NANC 149) but for release 1 the time will not be specified by vendor systems.		
NANC 135	Perot Team 8/10/97	Download File Clarifications The following clarifications for download files defined in FRS 1.4 and 2.2 should be added: • 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-	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

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	

Release 1.5 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
		YYYYHH24MISS, where the LRN portion is the literal string 'LRN'.					
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 137	Lockheed Martin Team 8/13/97	Disconnect Active SV Behavior Clarification We have a conflict between the FRS and the GDMO dealing with disconnecting active subscription versions. In the FRS, requirement R5-64.1 states that we shall not allow a disconnect of an active SV if there is a "pending" SV for that same TN until that "pending" SV is cancelled. In the GDMO in IIS 1.2, section 5.0, Action Behaviors, states "there is a pending SV and an active SV, and the currentSP has not authorized the port, the active one will be disconnected, and the pending one will go into conflict. If the SP has not authorized the port, the disconnect will fail" The GDMO should be corrected to state, "if there is a pending SV and an active SV, the disconnect of the active SV will fail."	Low	IIS	IIS would be updated in the next release. Pending review. Move to closed.		
NANC	Sprint	Concurrence Timer Values	Low	FRS	The FRS should be updated in the next		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
140	8/18/97	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.			release. Closed for FRS release 1.5.		
NANC 141	Lockheed Martin Team 8/18/97	<u>Cancel of Disconnect Pending</u> 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 1.5 Implemented/Closed Change Orders

Release 1.6 Implemented/Closed Change Orders							
Chg Order #	**Orig. / Date**	**Description**	**Priority**	**Category**	**Final Resolution**	**Level of Effort**	
						NPAC	**LSMS SOA**
NANC 107	MCI 6/9/97	IIS Discrepancy with R5-25 R5-25 in the FRS indicates the following states will cause an error to be returned if an attempt is made to modify the Subscription Version: sending, failed, partial failure, canceled, cancel pending, old or disconnect pending upon Subscription Version modification. The IIS behavior should be updated in the 3rd paragraph to state the following "Service Providers can modify attributes associated with active, pending, or conflict subscription versions.	Medium	FRS	The FRS 1.3 and FRS 2.1 will reflect this change. RE-OPENED: We missed a reference in the IIS that should be changed as well in flow 6.5.2 the SV Modification flow has a sentence in the overview that still reads that a Service Provider can modify a disconnect-pending subscription version. The disconnect pending status should be removed from the sentence. CLOSED – The IIS will be updated in the 1.6 release. Previously addressed in Rel. 1.3		
NANC 133	ESI 8/5/97	Audit Object Definition The IIS contradicts it self for the audit object. The subscriptionAuditBehavior states that "All attributes must be specified on create with the exception of the subscriptionAuditAttributeList and the subscriptionAuditTN-ActivationRange". If this is the case, then the subscriptionAuditAttributeList and subscriptionAuditTN-ActivationRange must have default values. The behavior should be changed to read: "All attributes	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.	Mediu m Low	Medium Low

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		must be specified on create with the exception of subscriptionAuditTN-ActivationRange if an audit is not being done on an activation data range."			A GDMO change will be implemented in Release 1.		
NANC 134	AT&T 8/10/97	Disconnect Action Behavior Discrepancies Disconnect Action GDMO is currently in conflict with requirements as follows: "If a delete request fails for the disconnect subscription version after the retry periods have expired, the version status will be set to failed or partially failed based on if the delete failed in all or some of the Local SMSs respectively. The current active version will remain active and an error will be returned for the action." It should be reworded to state: "If a delete request fails for the disconnect subscription version after the retry periods have expired, the version status will be set to active if all LSMS's fail or old if one or more but not all LSMS's fail." Table and Flow Graph in the FRS and IIS should also be updated as follows: Sending to Old -NPAC SMS automatically sets a sending Subscription Version to old after a disconnect or "porting to original" port to all Local SMS successfully completes. Disconnects that fail to one or more and not all will also be set to old. Sending to Active- 1. NPAC SMS automatically sets a sending Subscription Version to active after the Subscription Version activation is successful in all of the Local SMSs.	Low	FRS/IIS	Currently in the Nortel/Perot software, the version status will be set to Failed or partially failed based on if the create failed in all or some of the Local SMSs respectively. The NEW request is to set it to active if all LSMSs fail or OLD if one or more but not all LSMSs fail. This rewording will require that the Nortel SW be modified to change the required results of the fail / partial fail to fail / OLD. Nortel agrees that this change needs to be done, and agrees with the wording as is stated in the change order. CLOSED. Nortel has implemented this change. To be documented in 1.7.	N/A	N/A

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.					
NANC 143	AGCS 8/27/97	Subscription Version M-Delete to LSMS When a telephone number is being ported, the NPAC currently sends a request to the LSMS to create a new subscription version object. The LSMS is expected to search in its database to see if any existing subscription version object has the same telephone number. If such an object is found, the LSMS is expected to delete the existing object. This requirement is not documented in the FRS or IIS.	Low	IIS	The suggested solution is to have the IIS adhere to the TMN specification. The NPAC should issue an M-Delete message for an existing object before creating the new object. A variation would be for the NPAC to issue an M-Set instead of an M-Create or M-Action message. If neither of the above solutions is possible, the deviation from the standard specification should be explicitly called out in the FRS or IIS. A change order will be added to for a future release to add the M-DELETE. The M-DELETE was not implemented due to some LSMS vendors/SPs wanting to manage their own history. The wording to indicate deviation from standards will be put in the IIS. This change order has been added to the		

Release 1.6 Implemented/Closed Change Orders

Release 1.6 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					NANC 1.6 documents.		
NANC 144	AGCS 8/27/97	Filter implementation in the NPAC SMS FRS requirements RR3-5 and RR3-6 state that filters will be used for subscription broadcast. These requirements don't include subscription queries (audit), mass updates and lnpDownload requests. Lockheed Martin has interpreted these requirements to include applying the filter on subscription queries (audit), lnpDownload, and mass updates. Perot has interpreted the requirements as they are written. The only filter subscription broadcast. New Requirement 1 – Mass Update Filter Usage NPAC SMS shall for a mass update request, only send updates for subscription versions that are not filtered on the Local SMS. New Requirement 2 – Subscription Version Resynchronization Filter Usage NPAC SMS shall for a Subscription Version Resynchronization request only send subscription versions that are not filtered on the Local SMS. R8-16.1 is already in place for Release 1 to filter for audits.	Medium	FRS	Nortel follows the FRS, which calls for the filters to be used for subscription broadcast. The changes needed to include applying the filter on subscription queries and mass updates will cause coding changes. The effort to do the work would be medium to medium/high with a medium risk. The impact is that M-SET errors will occur for mass updates from the LSMS to the NPAC, audits would potentially create SV on an LSMS that the LSMS is not interested in and LNP download would send SVs that the LSMS is not interested in and would potentially create as a result of the lnpDownload. Closed for release 1. Perot will schedule change in their regions.	Medium High	
NANC 152	Bellcore 9/4/97	Audit Number of TNs Notification The IIS flows currently do not show the sending out of an attributeValueChange notification after an audit object	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		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
		creation for the numberOfTNs (to be audited). The GDMO indicates that the notification will be sent.			queried. Perot implementation to be investigated. The flow or the GDMO behavior must be changed. The GDMO will be changed to remove the statement that the attribute value change notification will be sent for numberOfTns. Perot and Lockheed concur. This change order has been added to the NANC 1.6 documents.		

NANC 155	8/5/97 AT&T	End User Location Type and Value Definition
		
		In the NANC IIS V1.2 the following ASN.1 definitions are found:
		
		EndUserLocationType ::= CHOICE {
		  value [0] NumberString(SIZE2)),
		  no-value-needed [1] NULL
		}
		
		EndUserLocationValue ::= CHOICE {
		  value [0] NumberString(SIZE(1..12)),
		  no-value-needed [1] NULL
		}
		
		However, in the FRS V1.2 the following is found in Table 3-5:
			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.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		End User Location Type C(2) End User Location Value C(12) where "C" is defined as "Character or Alphanumeric Strings".					

NANC 157	Lockheed Martin Team 9/10/97	Key exchange interval default value
		
		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:
		
		4. Service Providers may use a single keylist across multiple regions. This applies only to the keylist that the Service Provider generates.
		5. NPAC keys to be changed once a week within the key list.
		6. 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.
		7. 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).
		8. Naming convention for keylists to be as follows:
		   FROM | TO | REGION | KEYLIST #
		   XX XXX XX X
		   e.g. NP ATT WC 8
			Low	FRS	The default value in requirement R7-111.4 should be changed to 365 days.
					
					The key change occurring once a week is an NPAC only requirement.
					
					The standards proposed have been accepted with the exception of the file name. Which will be defined as indicated below.
					
					The key file will be <from company SPID >. <to company SPID>X. A file sent from NPAC will be <NPAC Region SPID>.<SPID>X. A file sent from a service provider will be <SPID>.<NPAC Region SPID>X. Where SPID is a 4 digit number (e.g. "0715"). The NPAC SPID will be those defined in the IIS. X will be the KEYLIST # as described in the original proposal.
					
					Closed for release 1.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		There was a concern that this would allow for only 9 keylists to be generated for each SP (per region). However, what I propose that in the unlikely event that more than 9 keylists are generated for an SP (per region) we move to alphas as well (i.e. 1-9 and then a-z). This would allow for a total of 35 keylist to be generated (if we generate more keylists than this for a region something is wrong).					
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.		

						Level of Effort	
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	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		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
					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.		
NANC 142 (cont.)					Notifications would occur off of SV1 for status change of SV1. New version of flows for vendors to evaluate and revisit NANC 130. New state transition would be needed to allow the transition of SV1 from old to sending during a re-send. The majority of the vendors are awaiting the answer to NANC 130 before concurrence. They would like to see similar behavior to other ports with the notification to the old SP. If the notification is sent to the old SP in NANC 130 then this issue will be closed with notifications being sent off of SV1. This change order has been closed with change order NANC 130.		
NANC 161	NANC 9/19/97	Subsequent Port Flow 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.		

Release 1.7 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort		
						NPAC	LSMS SOA	
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): -0 the new NPA-NXX involved in a split must not exist in the NPAC in the current NPAC implementation. -1 the new NPA-NXX is NOT broadcast by the NPAC at any time -2 The NPAC changes the existing NPA-NXX to the new NPA-NXX (therefore keeping the same version id as the old for the new. Therefore, not causing any delete for the old NPA-NXX in the Local SMS. The desired behavior is now defined in a separate document being reviewed by the team on the public web site.	High	FRS/IIS	Requirements have been finalized in the NANC T&0 meeting on 10/9/1997. Perot first split for Bell South Permissive Dialing will start 3/1. Bell South will investigate. The Lockheed regions first split permissive dialing period starts 12/13. New requirements sent in e-mail need to be reviewed. Closed 11/7/97. Requirements are available on the web.			
NANC 164	Perot 9/25/97	Duplicate NPA-NXX's and LRN's It was indicated that in some rare cases, there could be multiple owners of an NPA-NXX... (through sub-leasing etc). The Perot implementation does not validate duplicate NPA-NXX's. The Lockheed implementation prevents this from happening due to port to original processing. It has been requested that a clarifying statement be documented for both NPA-NXX and LRN duplication validation. The following requirements should be added:		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.			

North American Numbering Council (NANC)

February 1, 1999

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.					
NANC 164 (cont.)		RR4-7 Duplicate LRN Validation NPAC SMS shall validate that upon request to add an LRN added for a service provider that the LRN does not exist for any service provider in the region. RR4-8 Duplicate LRN Validation – Error Processing NPAC SMS shall upon finding that an LRN already exists for a service provider in a region will reject a request to add LRN for a service provider and report an error to the user.					
NANC 170	Perot Team 11/1/1997	ActivationTS vs BroadcastTS in IIS Flows The Activation Request Time Stamp is the time the activation was received from the new Service Provider and this is what is downloaded to the LSMS as the Activation Time Stamp. The activation broadcast date is what is set at		IIS	Update the IIS flows. Closed 11/7/97.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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: -3 Steps e and f be removed from 6.5.1.6 -4 Steps e and f be removed from 6.5.1.9 -5 Steps b and c have the name subscriptionVersionBroadcast changed to -6 Subscription Version activation timestamp in flow 6.5.1.5. -7 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.					
NANC 171	Bellcore 11/1/97	Audit Response Error Code Clarification How the audit status is set should be documented in the IIS. The audit status should be returned with the following priority on the return values: highest - failed due to discrepancies high - failed on local sms low - no audit performed	Low	IIS/GDMO	This behavior should be documented in the IIS. From e-mail received by both vendors when Bellcore raised questions, it is believed that the behavior is the same in their NPAC SMS's. This should be verified and the change order should be closed. Closed 11/7/97.		

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

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 173	Perot Team 11/15/97	Flow 6.5.2.1 Modification A discrepancy between the FRS and the IIS. FRS 1.6 requirements R5-26 and R5-32 show that when modifying based on TN, the status must also be provided. In IIS 1.6 call flow 6.5.2.1 note a fails to require status.	Low	IIS	It is recommended that the wording in IIS 6.5.2.1 be changed so that the IIS wording clearly states that the status is required on M_Action modify by TN. Nortel agrees that this change is needed and will comply if the service provider complies and sends the status. However, if the service provider fails to send the status along with the ported telephone number, Nortel may fail to reject the message. The only situation where the Perot NPAC behavior would be an issue is on a modify. Only two states can be modified, pending and active. If a request comes w/o a status it is assumed to be a modify for the active SV, if there is no active then a modify of the pending SV is assumed. In release 2 there is a change order, NANC 108 that will require that the SP's provide the status for modify requests. This change order will be closed and will serve to document the current behavior prior to release 2.		
NANC 176	Bell South 11/15/97	Modification of Status Change Cause Code A discrepancy was found between the FRS 1.6r equirementsR5-27.3, R5-29.5, and IIS 1.6 flow 6.5.2.4.	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		

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

		Step a in flow 6.5.2.4 states the following:
		a. Action is taken by a service provider to modify the subscriptionVersion. The old service provider can only update the following attributes:
		      subscriptionOldSP-DueDate
		      subscriptionOldSP-Authorization
		
		We should add the status change cause code should be added as an attribute that can be modified per the FRS requirements.
					FALSE.		

NANC 182	Perot Team 1/7/98	NPA-NXX effective date validation Both NPAC vendors currently allow the effective date for an NPA-NXX to be any date, past, present, or future. It has been requested that this be documented in the FRS.	Low	FRS	Suggested requirement to be added will be RX3-1.1.1 Service Provider NPA-NXX Effective Data Validation - NPAC SMS shall allow the effective date for a service provider NPA-NXX to be a past, present, or future date. The requirement will be documented in the FRS.		
NANC 190	Nortel 1/19/1998	NPA Split Requirement 33 Interpretation Requirement #33 - NPAC SMS shall start NPA Split Processing at 00:01 hours on the start date of permissive dialing. Nortel interpreted this requirement to mean that processing started at the beginning of permissive started at 00:01 LCL time to set up the SVs for the start of permissive dialing and that it might run for some finite amount of time. The SP in a Nortel/Perot meeting did agree that the requirement	Medium	FRS	This requirement and requirements 34 and 35 would be modified appropriately.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		should be changed to stipulate that any processing done to set up for permissive dialing should be completed so that a number dialed at 00:02 LCL time on the day of start of permissive dialing. Further they agreed that any audits run after 00:02 LLCL time on the start of permissive dialing should be able to be run to check that the LSMSs are in sync with the NPAC.

It has been requested that requirement 33 be reworded to more clearly state the desired behavior as follows:

Requirement #33 – NPA Split - Start Time
The NPAC SMS shall complete any needed NPA split set up processing or activities by 00:01 CST time on the start date of permissive dialing. | | | | | |

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
ILL 181	Illinois 2/24/97	Key's for EACH Service Provider Interface Requirement R7-111.6 in FRS 0.1 states that "key initiation [is] to be requested on a per Service Provider basis". This has been interpreted that one key be supported per Service Provider. The NPAC SMS under this requirement would expect one key from a key list for all associations for a Service Provider regardless of whether it is a SOA or LSMS association. This means that the LSMS and SOA systems would have to coordinate with one another to make a key change. It has been requested that keys be treated independently at the presentation layer for an association. By using the presentation layer (or by PSAP address) support of a key, SOAs and LSMS systems could have unique keys. In addition, if an LSMS, for instance, is made up of two processes, one supporting network subscription data download and the other supporting query; they could have unique keys.	Re-opened	FRS / IIS	Changes were made in the 1.0 release of the IIS and FRS. RE-OPENED: For reference for NANC 154. Closed with NANC 154 and NANC 104 for release 1. To be documented in an IIS release when the information to be put in the document is approved. Additional information has been provided to the team for discussion. ESI, AT&T, and Bellcore do not have an issue with the current approach. AT&T has a issue with the Nortel proposed approach. ESI and Bellcore have also indicated that they may have an issue and are currently reviewing the information to provide input to the group on the 1/23/98 call. AT&T write up of the current implementation will be documented in the IIS. This change order was previously addressed in Rel. 1.0.		

Release 1.9 Implemented/Closed Change Orders

Release 1.9 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort		
						NPAC	LSMS SOA	
NANC 188	Lockheed Martin Team 1/19/1998	Mass Update Flow 6.7.4 Modification The IIS states that an attributeValueChange notification will be sent to the current service provider SOA during a mass update. The only notification that would be attributeStatusValueChange to notify the SOA of the status going from active to sending and back to active. Steps e and f should be modified to reflect this change in flow 6.7.4	Low	IIS	Documentation change only. Both NPAC Vendors view this change as a documentation change due to that in their implementations they only send attributeStatusValueChanges to the owner of the TN being updated in the mass update.			
NANC 194	Lockheed Martin Team 1/29/1998	Retry Tunables without Requirements in 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	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.			

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
		- 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.					
NANC 194 (cont.)		Req 3 Subscription Activation Retry Attempts - Tunable Parameter Modification - NPAC SMS shall allow the NPAC SMS Administrator to modify LSMS Retry Attempts tunable parameter.

Req 4 Subscription Activation Retry Interval – Tunable Parameter Modification - NPAC SMS shall allow the NPAC SMS Administrator to modify the LSMS Retry Interval tunable parameter.

Req 5 Subscription Activation Retry Attempts – Tunable Parameter Default - NPAC SMS shall default the LSMS Retry Attempts tunable parameter to 3 times.

Req 6 Subscription Activation Retry Interval – Tunable Parameter Default - NPAC SMS shall default the LSMS Retry Interval tunable parameter to 2 minutes.

Req 7 Subscription Version Activation Failure Retry - NPAC SMS shall resend a message the LSMS Retry Attempts tunable parameter number of times to a Local SMS that has not acknowledged the receipt of the message once the LSMS Retry Interval tunable parameter expires. | | | | | |
| NANC | Perot Team | Activation Timestamp value sent to the LSMS | Low | IIS | It was consensus of the group that the | | |

Release 1.9 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
196	1/30/1998	An issue was raised about when the activation timestamp should be set before it is sent to the LSMS. Conflicting references have been identified.			activation time stamp should be set before the subscription version is sent to the LSMS. This timestamp is the time the activation request was received by the new service provider. This is done so that all LSMS' have the same timestamp in their database that matches the timestamp in the NPAC database. The following references in the IIS will be modified as follows:

The definition in the attribute table in section 4 for subscriptionActivationTimeStamp will have the first sentence reworded as follows: "This attribute is used to specify the date and time that the new service provider activation request was received by the NPAC SMS."

Object 21 in the GDMO for subscriptionVersion will have the 4th paragraph from the bottom of the behavior modified to state :

"The subscriptionActivationTimeStamp is set by the NPANC SMS as the current date and time when the | | |

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
					subscriptionVersion activation request is received from the new service provider".		
NANC 196 (cont.)					The behavior for the attribute definition for subscriptionActivationTimeStamp will be modified to state: "This attribute is set by the NPAC SMS as the time and date that the subscription version activation request was received from the new service provider."		

<div align="center">Release 1.9 Implemented/Closed Change Orders</div>

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
NANC 133	ESI 8/5/97	**Audit Object Definition** The IIS contradicts it self for the audit object. The subscriptionAuditBehavior states that "All attributes must be specified on create with the exception of the subscriptionAuditAttributeList and the subscriptionAuditTN-ActivationRange". If this is the case, then the subscriptionAuditAttributeList and subscriptionAuditTN-ActivationRange must have default values. The behavior should be changed to read: "All attributes must be specified on create with the exception of subscriptionAuditTN-ActivationRange if an audit is not being done on an activation data range."	Low	IIS	The IIS would be updated. Moved to release 1 due to incompatibilities in vendor implementation. Awaiting response from Perot/Nortel on 9/26. A suggestion is to put the keyword OPTIONAL after the subscriptionAuditTN-Activation range. A GDMO change will be implemented in Release 1. REOPENED: The GDMO/ASN.1 change did not get made. The subscriptionAuditTN-Activation range should be added to a conditional package. Addition of the keyword optional is not supported in GMDO definitions. Current work around is that the SOAs do not send the attribute (note that this is not standards compliant) The use of a conditional package is backward compatible. Closed 4/16/1998.	Medium Low	Medium Low
NANC 197	NANC T&O 2/13/98	**IIS Clarification for Congestion Handling** It has been requested that the IIS document how congestion will be handled over the SOA and LSMS interfaces. The Lockheed NPAC can accept a configurable number of	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.		

Release 1.10 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.			DSET has committed a resource to be available for the 4/24/1998 call so that this issue can be resolved. From the discussion on the 4/24 call. The following action items were created: CMA to update IIS write-up. DSET to update DSET information previously provided to T&O. Lockheed to provide documentation specific to their implementation. Closed on 5/13/1998		
NANC 209	Lockheed Martin Team 3/30/98	Documentation of NPA Split Query Behavior When a query is done using an old NPA involved in a split Lockheed returns the new NPA for single TN requests and for a range of stations only (same NPA-NXX). A range query that varies the NPA will return only what was queried. RN3-2 States "NPAC SMS shall accept both the old and new NPAs during PDP, but will only respond and download with the new NPA-NXX." It has been requested that requirements in the FRS be added to clarify this behavior. The requirement RN3-2 would be modified as follows: "NPAC SMS shall accept both the old and new NPAs	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.		

Release 1.10 Implemented/Closed Change Orders							
Chg Order #	**Orig. / Date**	**Description**	**Priority**	**Category**	**Final Resolution**	**Level of Effort**	
						NPAC	**LSMS SOA**
		during PDP, but will only respond and download with the new NPA-NXX except for query requests that span NPAs."					
NANC 211	ESI 3/30/98	Flow Modifications for Failed SP List Updates The following NPAC behavior is not reflected in any of the IIS flows. It has been requested that the IIS be updated to show this behavior: During an audit, if an SP is in a failed list gets updated due to an audit, the failed SP list is updated and notifications are sent to the old and new SP for the SV. During a resync, if an SP is in a failed list and it gets updated due to a resync, the failed SP list is updated and notifications are sent to the old and new service providers. The status change diagrams in the IIS and FRS would also have to be updated to show the state transitions were the sending state does not occur for the SV when the status is changed. For instance in an audit the TN status would change from partially failed to active without going to sending if all LSMS's that had previously failed were corrected by the audit.	Low	IIS/FRS	Modified IIS and status value change flow in section 5 of the FRS and section 10 of the IIS needs to be updated. Closed on 5/13/1998.		
NANC 215	PacBell 4/24/1998	Immediate Disconnects - Section 6.5.4 of the IIS In the NPAC SMS, three status change notifications are sent to the SOA. The first is sent when the status is set to DISCONNECT PENDING, the second sent after the status is set to SENDING, and the third is sent after the disconnect when the status is set to OLD.	Low	IIS	Document the first notification in the IIS flow 6.5.4 in IIS 1.9.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		The first status change notification for disconnect pending is not documented in the IIS.					

Chg Order #	**Orig. / Date**	**Description**	**Priority**	**Category**	**Final Resolution**	**Level of Effort**		
						NPAC	**LSMS SOA**	
ILL 75	Forum Meeting 11/19/96	Validate Due Date is > than the NPA-NXX effect date upon Pending Version Creation	Medium High	FRS and NPAC SMS functionality	This is in Release 2 (SOW 9).	Low	Low

		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.			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.		

ILL 79	Forum Meeting 11/19/96	Notification Recovery	High	IIS	Detailed requirements have been developed.		
		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			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	Medium	FRS	Detailed requirements have been developed.		
		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.			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.		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					This change order will be re-applied to the Release 2 FRS document. Perot will provide this functionality in Release 2. This is in Release 2 (SOW 9).		
NANC 48	NANC meeting 3/24/97	Multiple SPIDs per Service Provider SOA It has been requested that multiple Service Provider Ids be associated with a single service provider SOA within an NPAC SMS. This issue is currently being investigated and proposed requirements are being developed.	Medium Low	FRS / IIS / ASN.1	This is in Release 2 (SOW 9).	Medium	Medium
NANC 68	Illinois	Mass Update Requirements Modification The current requirements R3-7.1 and R3-7.2 for Mass Update do not reflect the business need and should be replaced with the following: R3-7.1 Select Subscription Versions mass changes for one or more Subscription Versions NPAC SMS shall allow NPAC personnel to select Subscription Versions for mass update which match a user defined combination of any of the following: TN, TN range, Service Provider ID, LRN, DPC values, SSN values, Billing ID, End User Location Type or End User Location Value. R3-7.2 Administer Mass updated on one or more selected Subscription Versions	High	FRS	ILL 186 has been combined into this change order. This is in Release 2 (SOW 9).		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
		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.					
NANC 77	AT&T 4/16/97	TimeRange ASN.1 Definition The startTime and stopTime of TimeRange are defined as OPTIONAL. Since all requests involving TimeRange will include startTime and stopTime, the OPTIONAL is not needed and should be removed.	Low	IIS/ASN.1	The IIS will be updated. This change order has not been grouped. This is in Release 2 (SOW 9).	Low	Low
NANC 83	Illinois Meeting 5/1/97	NPAC Time Synchronization It has been requested that a requirement be added to the FRS to require that the NPAC SMS systems use NTP to synchronize from a Stratum 1 host. This would insure that all NPAC SMS vendors are synchronized on their times. The requirement would be as follows: NPAC Clock Synchronization NPAC SMS shall synchronize its system clock using NTP to a Stratum 1 host.	Low	FRS	Perot provided the M&P for at minimum a weekly synchronization of their hosts from a Stratum 1 host for release 1. They are investigating dial-up to a Stratum one host. Stratum one may not be available until release 2. It has been requested that Perot provide this functionality sooner if possible.		
NANC 108	NANC 6/8/97	IIS Discrepancy with R5-26 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	Low	Low

Release 2 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					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.		
NANC 113	Change Order Call 6/20/97	ASN.1 and GDMO for Notification Recovery The ASN.1 and GDMO should be updated to add the notification recovery action for the SOA.	High	IIS	The ASN.1 and GDMO should be updated in the 2.1 release. This change order has been merged with ILL 79.		
NANC 114	Lockheed Martin Team 6/23/97	Download subscription-version-id optional The "subscription-version-id" is defined as optional in ISS 2.0 in the SubscriptionDownloadData but it should be required. The OPTIONAL tag should be removed. The tagging could also be removed from the ASN.1.	High	IIS / ASN.1	This change will be made in the IIS. This is in Release 2 (SOW 9).	Medium Low	Medium Low
NANC 118	Lockheed Martin 6/27/97	CMIP Notification Recovery by Time Range It has been requested that CMIP notification recovery be requested by time range as, as done in LSMS download actions. The IIS action definition contains time range per NANC 113. The text is currently as follows:	Medium	FRS	This change would be documented in FRS 2.X This change order has been merged with ILL 79.		

Release 2 Implemented/Closed Change Orders

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

NANC 131	AT&T 8/5/97	LRN-DownloadData Modification
		
		In LRN-DownloadData the LRN Value should be optional. Due to the fact that when we try deleted LRN or NPA-NXX, we get sent only the ID and the DownloadReason not the LRN value. Note that the NPA-NXX value is optional in the NPA-NXX –DownloadData.
		
		LRN-DownloadData ::= SET OF SEQUENCE {
		    Service-prov-lrn-id LRN-ID,
		    Service-prov-lrn-value LRN Optional,
		    service-prov-download-reason DownloadReason,
		    service-prov-lrn-creation-timestamp GeneralizedTime OPTIONAL
		}
				IIS/ASN.1	Update the IIS and ASN.1.
					
					This is in Release 2 (SOW 9).
						Low	Low

NANC 139	Ameritech 8/12/97	Network Data Download to SOA A request has been made to allow network data downloads (M-CREATE, M-DELETE, and M-SET) to be sent to, and if applicable, instantiated on the SOA in addition to the LSMS (i.e., Service Provider, LRN and NPA-NXX	Medium	IIS/FRS	The IIS and FRS would be updated. This is in Release 2 (SOW 9). Oct LNPAWG (Kansas City), this was discussed even though it is Closed, and	Medium High	High

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.			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 action being used by the SOA and LSMS. | Medium | IIS | Flows would be added to the IIS 2.3 release.

This change order has been combines with ILL 79. | | |
| NANC 156 | MCI 9/10/97 | 6.5.3.1 Flow 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 | Modify the flow such that step j and k come after step l.

Perot states that it is a low effort to comply with requirements.

This change order has no Lockheed impact.

This is in Release 2 (SOW 9). | Low | N/A |
| NANC 158 | Bellcore/ ESI 9/17/97 | Other Notification Recovery

In the IIS, under the new SOA notification recovery section the following notifications are not listed:

subscriptionVersionStatusAttributeValueChange
attributeValueChange
objectCreation
objectDeletion | | IIS/ASN.1/ GDMO | These notifications should be added to the IIS.

Feedback from SOA vendors and NPAC vendors.

Other SOA vendors to evaluate.

This change order has been combined into | | |

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

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
		These are not documented in the original change order NANC 79 and were not formally added in a later change order.			ILL 79. Closed.		
NANC 160	AGCS 9/17/97	Single TN in a Range Create The Lockheed implementation does not support subscription version create on a single TN with a TN range where the starting TN equals the ending TN. Perot implementation supports this functionality.		IIS	Desired behavior should be determined and documented. A single TN should not be specified as a range.. Lockheed ITP to be updated. Perot to implement change in the future. Clarification was put in the release 1 IIS per change order 159. This is in Release 2 (SOW 9).	Low	N/A
NANC 162	AGCS 9/26/97	TN- Attribute as GET-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	Medium	FRS	The group has accepted this change. Submission to the LLC's has occurred. This is in Release 2 (SOW 9).		

Release 2 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		Provider Id in the NPAC Customer Associated Service Provider Information. Wording change made above to make it clearer that the associated service provider association is rejected. This requirement would then be in sync with Assumption 1. Constraint 1 - Associated Service Provider Notification Aggregation NPAC SMS aggregation of notifications for primary and associated service provider ids will not be supported by the NPAC SMS. Should be modified to state ...aggregation of all messages over the SOA to NPAC SMS interface….." (continued)					
NANC 178 (cont)	Continued	Requirements 12 - Filters for Associated Service Providers NPAC SMS shall apply filters for the associated Service Provider Id before sending them over the SOA to NPAC SMS interface association for the primary service provider. Should be changed to state "...apply NPA and/or NPA-NXX (accepted) filters...."					
NANC 184	NANC T&O 1/5/98	Response for Notification Recovery not Linked The reply for notification recovery was not specified to be linked or not linked. Currently all action replies have been	Medium	IIS	Closed by the team on 1/16/98 for submission to the LLC's. This is in Release 2 (SOW 9).		

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

NANC 185	NANC T&O 1/5/98	Notification Recovery Error Response
		
		It has been requested that an enumerated type of criteria too large be returned to a notification recovery request where the time range is too large. The current ASN.1 as follows:
		
		NetworkNotificationRecoveryReply ::= SEQUENCE {
		Status ENUMERATED {
		success (0),
		failed (1),
		time-range-invalid (2),
		no-data-selected (3)
		}…….
		
		will be modified as follows:
		
		NetworkNotificationRecoveryReply ::= SEQUENCE {
		Status ENUMERATED {
		success (0),
		failed (1),
		time-range-invalid (2),
		criteria-to-large (3),
		no-data-selected (4)
		}…..
			Medium	IIS/ASN.1	Related to Change order ILL 79. This change order has been closed by the team for forwarding to the LLC's
					
					This is in Release 2 (SOW 9)..		

NANC 201	NANC T&O 3/2/1998	Unique Sets of Timers Wireless to wireless porting needs tunable timers defined that are independent from wire line timers by region. The following are timers that have been analyzed to date: • T1 and T2 timers may need to be defaulted to 1.0 hour.	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		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		• 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.			wireline. The type of timers being used would be an optional parameter on a create message. For backward compatibility long timers would be the default. Also if a Service Provider did not support the different timers the create would be rejected from the SP indicating timers other than the default of long. The configurable timers in the groups would be T1, T2, conflict restriction window, conflict resolution new service provider restriction, and the cancellation concurrence timers. The timer specification on the create notification in the optional field would be integer numbers so as to support backwards compatibility in the future should more unique sets need to be supported. See wireless change order detail file. Submitted to LLCs for sizing and scheduling considerations. This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9. The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release.		
NANC 202	NANC T&O 3/2/1998	Unique sets of Business Days/Hours Business hours need to be defined uniquely for wireless to	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		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
		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.			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	NANC	Wireless Addition of WSMSC DPC and SSN Information	?	IIS/FRS	A bit mask in the NPAC SMS could be used		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	**LSMS SOA**
203	T&O 3/2/1998	Wireless Short Message Service Center (WSMSC) needs to be added as a new set of DPC and SSN information that is part of the subscription version received from SOA, stored on the NPAC SMS, and sent to the LSMS for wireless to wireless porting. Validation rules are assumed to be those in place today.			to indicate which SOA and LSMS systems support the new fields. See wireless change order detail file. Submitted to LLCs for sizing and scheduling consideration. This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9. The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release.		

NANC 206	Telecom Software Enterprises 3/10/1998	<u>Proposed ASN.1 Change ILL 79</u>
		
		It has been suggested the ASN.1 for ILL 79 be changed to add a choice after the set of sequence for LSMS and SOA make parsing of the notification data more straight forward for the LSMS and SOA systems.
		
		The change to the LSMS portion of the ASN.1 is shown for illustration:
		
		system-choice CHOICE {
		   lsms SET OF SEQUENCE {
		     CHOICE {
		      Subscription-version-new-npa-nxx VersionNewNPA-NXX,
		      lnp-npac-sms-operational-information NPAC-SMS-Operational-Information
		     }
			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).		

Release 2 Implemented/Closed Change Orders

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

		Original ASN.1 follows for the LSMS portion:
		
		system-choice CHOICE {
		    lsms SET OF SEQUENCE {
		       subscription-version-new-npa-nxx [1] VersionNewNPA-NXX OPTIONAL,
		       lnp-npac-sms-operational-information [2]
		         NPAC-SMS-Operational-Information OPTIONAL
		    }					

NANC 207	NANC T&O 3/19/1998	Removal of Intermediate Notifications It has been suggested that the intermediate notifications (specifically, "sending") be removed as a notification to a SOA. This is used when a subscription version has been activated and is going from "pending" to, "active", "failed", or "partially failed". This would reduce the number of notifications sent over the CMIP interface by approximately 30% in the current implementation. This would allow the NPAC SMS and SOA vendors to realize higher performance.	Medium	IIS/FRS	It has been requested that SOA vendors review this change and determine if this type of flow/message sequence change would impact them in their current implementations. MCI, AGCS, AT&T, ESI, Tekelec, and Bellcore indicated that they would not be impacted by the removal of the sending notifications. A list of affected IIS flows is as follows: 6.5.1.5: Activate (2 message reduction; steps e, f, g, h) 6.5.1.12: PTO: Successful (3 message reduction; steps e, f, g, h, k, l) 6.5.1.13: PTO: Failure (3 message reduction; steps e, f, g, h, k, l) 6.5.1.14: PTO: Partial Failure (3 message reduction; steps e, f, g, h, k, l) 6.5.1.15: PTO Resend: Successful (3 message reduction; steps d, e, h, i, j, k) 6.5.1.16: PTO Resend: Failure (3 message		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					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 (1 message reduction; steps d, e) • 6.5.2.5: Modify Active: Resend Successful (1 message reduction; steps d, e) • 6.5.4.1: Immediate Disconnect (1 message reduction; steps f, g) Note that a subscription version could stay in sending state for over one hour. Operational impact should be investigated by SP's to insure that if after an SV is activated it would be alright for operations personnel to see the SV in an "active/pending" status (for over an hour for TN ranges or 6 minutes for single TN activities) until the SV goes to the final state after sending. Operationally none of the Service Providers indicated they would have any issues with the removal of the "sending" message. The wording of this description should be changed to state "intermediate notifications apply to sending only". Updates are only needed for the IIS flows, and not the FRS or SV status transition diagram, as sending will still occur within the NPAC SMS. Therefore, this change order is ready for finalization. Approved and closed, 7/15/98. Moved to Future Release Closed		

Release 2 Implemented/Closed Change Orders							
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
					List. Waiting for prioritization from the group. This is in Release 2 (SOW 9).		
NANC 214	Ameritech 4/24/1998	Conflict Functionality with Due Date = Today When a subscription version is created with a due date equal to the day it was created, regardless of the status of the T1 and T2 timers, per requirements RR5-42.1 through RR5-42.4, the old SP cannot put the subscription version into conflict after 12:00 on the day before the due date. It has been suggested that the subscription version be allowed to be put into conflict prior to the expiration of the T2 timer. A clarification made to the requirements that basically states "The timeframe in which the Old SP would have the ability to put an SV into conflict, would be the greater of 12:00 noon the date before the due date OR the expiration of the T2 timer...". In essence, a New SP that doesn't abide by the three day rule, doesn't restrict the Old SP from setting to conflict; however, an Old SP that waits to respond to the new SP create until the due date would still have to contend with the expiration of the T2 timer (and may not be able to set to conflict).		FRS	It was noted that the old SP could issue a cancel. This change order is seen as one that should be implemented prior to release 2 or earlier by some service providers. GTE and Ameritech support implementation of this change order as soon as possible. Service Providers should be prepared to finalize the proposed wording for RR5-42.1 through RR5-42.4 at the June T&O meeting in Denver. During the August T&O meeting, it was agreed that the description for this change order is satisfactory. There was a request to add a statement relating to a discrepancy between this change order and NANC 201. Specifically, requirement #3 of NANC 214 shall supercede the "N/A" listed in the conflict restriction window for short timer default values in the table for NANC 201 that describes timer default values for each of the six applicable timers. Moved to future release closed list, already submitted to LLCs, awaiting prioritization.		

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

Release 2 Implemented/Closed Change Orders heading:

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
		(continued)			This is in Release 2 (SOW 9).		
NANC 214 (con't)	Continued	The conflict restriction process is shown below, with *comments* to indicate the desired behavior of the requirements):					

Release 2 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
		(continued)			This is in Release 2 (SOW 9).		
NANC 214 (con't)	Continued	The conflict restriction process is shown below, with *comments* to indicate the desired behavior of the requirements): 1. NPAC SMS shall provide a Conflict Restriction Window that restricts an Old Service Provider from putting a Subscription Version into Conflict. *(New requirement. This means that a Conflict Restriction Window exists, and this is when an Old SP is NOT allowed to put an SV into conflict.)* 2. **RR5-42.2 Conflict Subscription Version – Conflict Restriction Window**, would remain the same. NPAC SMS shall provide a Conflict Restriction Window Tunable which is defined as the time on the business day prior to the New Service Provider due date that a pending Subscription Version **can no longer** be placed into a conflict state by the old Service Provider. *(Current restriction requirement. This means that the restriction tunable exists, which is a time of day value [e.g., 13:00], and defines the time of day, ON THE DAY PRIOR TO THE DUE DATE, that an Old SP is NOT allowed to put an SV into conflict.)* 3. NPAC SMS shall restrict a Subscription Version from being placed into Conflict by the Old Service Provider, when the Conflict Restriction Window Tunable Time is reached AND the Final Concurrence Timer (T2) has expired. *(New requirement. This means that the restriction for placing an SV into conflict starts when BOTH the tunable time is reached [on the day prior to the due date] AND the Final Concurrence Timer [T2] has expired.)*					
NANC 220	NANC T&O	Wireless Due Date Clarification		IIS/FRS	August T&O (Detroit). The CMA reported that there is one reference in the IIS and one		

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort	
						NPAC	LSMS SOA
	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.			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	WSMSC Addition to Mass Update for NANC 203		FRS	This is a companion to NANC 203, and should be included when that change order is		

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

Release 2 Implemented/Closed Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	NPAC	LSMS SOA
	6/30/98	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.			implemented. Approved and closed, 8/12/98. Functionality has been merged into NANC 203. This has been moved into the "Accepted" category, awaiting prioritization. It is currently in the Amendment to SOW 9. The amendment (9A) was approved the week of Oct 19, so this change order now moves to current release.		
NANC 224	TSE 7/6/98	Canadian Region NPAC ID The current documentation does NOT list the Canadian NPAC and corresponding region ID (0007). This needs to be changed in the IIS. The current documentation starts with MidWest (0000) and goes up to West Coast (0006). This is section 4.3 in Exhibit 13.		IIS	Approved and closed, 7/15/98. Move into "Accepted" category, awaiting next release of the IIS. The text will be changed as follows: NPAC SMS Region = *Canada* LnpNPAC-SMS-Name = *Region8* *NPAC Canada* NPAC Customer ID = *0007*		
NANC 233	TSE 8/28/98	Documentation Change to IIS for 6.5.1.6 Active SV Create on Local SMS The flow picture needs to be updated to coincide with the existing text. The text for step i states, "NPAC SMS notifies the current SP SOA for the previously active SV of the status change". In this case, the current SP SOA of the previously active SV would now be the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA.		IIS	The documentation should be updated in the 1.11 version of the IIS. Oct LNPAWG (Kansas City), approved by the group. Move into "Accepted" category, awaiting next release of the IIS.		

Release 2 Implemented/Closed Change Orders								
Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort		
						NPAC	LSMS 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 from ASCII to integer. This is how the NPAC SMS and all current SOA and LSMS systems are implemented.		IIS	The documentation should be updated in the 1.11 version of the IIS. Oct LNPAWG (Kansas City), change words to state from "ASCII to integer". Approved by the group. Move into "Accepted" category, awaiting next release of the IIS.			
NANC 236	TSE 9/4/98	Documentation Change to IIS for 6.5.1.12 SubscriptionVersion Port-to-Original: Successful The flow picture needs to be updated to coincide with the existing text. The text for step k states, "NPAC SMS sends to the current/new service provider SOA a subscriptionVersionStatusAttributeValueChange for the subscriptionVersionStatus being set to sending on SV1", and step r, "…set to old…". In this case, the subscriptionVersionStatusAttributeValueChange should be going to the Old SOA. However, the flow picture shows the message incorrectly going to the New SOA.		IIS	The documentation should be updated in the 1.11 version of the IIS. Oct LNPAWG (Kansas City), approved by the group. Move into "Accepted" category, awaiting next release of the IIS.			
NANC 238	TSE 9/18/98	Documentation Clarifications for Wireless Change Orders, NANC 201, 202, and 203 The flags contains inconsistent information, regarding the definition of "TRUE" for support or not support of the new functionality. These should be made consistent. Also, the default value is not defined in the requirements.		FRS	The flags for these three change orders will be made consistent. Specifically, the value of TRUE indicates supporting the functionality, and the value of FALSE indicates not supporting the functionality. The default value for these three change orders shall be set to FALSE (indicating that the Service Provider does NOT support this new functionality).			

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

Closed/ No Action Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
ILL 11	Lockheed Martin Team / 10/17/96	Portability Area Utilities, Screen, and Report Enhancements Provision of screens and reports on Portability Area basis. In addition to the Provision of Administrative utilities, screens, and reports to establish and maintain Portability Area to NPA-NXX and NPA-NXX to service provider Local SMS download association linkages.	Medium	NPAC SMS functionality / potential IIS change	This feature has been targeted for Release 2. Detailed requirements have been developed. This change order has been closed no action. Requirements from this change order have been merged into change orders ILL 8, ILL9, and ILL 10.	
ILL 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").	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
		The encoding is a "VisibleString" encoding, which does allow "0" to be represented. Also, note that the ".0" really means ".x", where x is the value of the tenth of a second. Normally, GeneralizedTime does not specify how long the visible string is. The reason is that the ".xxx" is based on how much resolution your system clock has, to the tenth of a second, microsecond, nanosecond, etc. For the IIS, this is restricted to 17 to indicate the time will be to a resolution of a tenth of a second. For LNP systems that only have resolution to the second, the last digit will be zero. To be strictly correct, the IIS really should not specify exactly how long the string is, as long as it is at least 15 octets. Each system 1) on sending, should determine how it wants to represent time, and 2) on receiving, should be able to interpret any of the three formats of GeneralizedTime it receives and make the appropriate translation to interpret the digital signature using the 17 digits.				
NANC 127	Nortel/Perot 8/5/97	Use of Range Operations from the SOA It has been identified that some service providers are not implementing range operations from the SOA. There is no explicit requirement in the IIS for support of ranges. However, lack of support for ranges may be quite inadequate as it increases activities necessary for porting of large blocks. Non support of ranges from some service providers causes additional messages to other service providers. Hence, effecting everyone's performance. It has been requested that support of range operations such as activates and creation on subscription versions be required.	Low	FRS	The requirement for range operations has been rejected by the group due to operational issues that may prevent use of a range for activation. There were no documentation changes for the IIS or FRS as a result of this change order.	
NANC 128	8/5/97 AGCS	R7-111.2 Requirement Interpretation	Medium	FRS	The originator due to discussions at the cross regional meeting has closed this change order. Test case 54	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		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.			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. 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	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
					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 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 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.	Low	IIS	Submitter is reviewing this change order for accuracy. This change order may be withdrawn. Closed no action by submitter 4/14/1998.	
NANC 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		IIS/FRS	Discussed during 7/16/98 face-to-face T&O meeting. It was determined that the problem stems from the in-ability to send a Port-To-Original (PTO) port on an intra-SP port (LNP Type = LISP). The business scenario is that a customer is "home" to switch A, then moves down the street and is "home" to switch B (still in same rate center, so was LISP-ed	

Closed/ No Action Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		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.			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". A request has been proposed to investigate the issue surrounding the "assurance of the sequence of transaction processing on the same object" within the NPAC SMS.		IIS	Discussed during 8/12/98 face-to-face T&O meeting (Detroit). The current NPAC functionality is processing in Confirmed Mode over the stack, and the NPAC will process transactions in the order that they are received, but not necessarily completed. Individual SPs need to ensure sequencing by NOT sending up a second transaction (for the same object) until the response has be received for the first transaction. Other SPs and vendors did NOT support a change to the NPAC for this sequencing assurance. The group agreed that this change order should be closed, and a new change order should be opened to	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
					investigate the documentation updates that would clear up the responsibility issue. The new "sister" change order is NANC 231.	

Deleted Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
ILL 3	MCI 10/15/96	Enhancements to Screening of NPA-NXX Broadcasts This feature would enhance the requirements for management of NPA-NXX filters and add support for NPA and NPA-NXX range filtering.	High	NPAC SMS Functionality / FRS / GDMO / ASN.1	NANC 120 and NANC 167 have been combined into this change order. Sep LNPAWG (Seattle). This change order was discussed by those in attendance. It was agreed that this functionality is no longer needed, and should be moved to the "Pending-Delete" List.	
ILL 65	Ameritech / 11/08/96	Network Level Audit The NPAC SMS should provide the capability to have audit processing down to the network element level. This would require the NPAC-LSMS interface to support functionality including asynchronous responses from the LSMS for audit processing down to the SCP level.	Pending DELETE as of 8/22/97	IIS	This feature has been requested for Release 4. Detailed requirements need to be developed. Withdrawn by originator.	
ILL 66	Ameritech / 11/08/96	Network Level Activation Capability The NPAC SMS should provide the capability to process activate messages down to the network element level. This would require the NPAC-LSMS interface to support asynchronous responses from the LSMS for activation responses to the SCP level.	Pending DELETE as of 8/22/97	IIS	This feature has been requested for Release 4. Detailed requirements need to be developed. Withdrawn by originator.	
ILL 67	Ameritech 11/08/96	DPC Validation The NPAC SMS should have a DPC table which would validate valid DPC data for each service provider. This validation would be performed by the NPAC SMS on any subscription version transactions. This enhancement would support the Service Providers' abilities to maintain network reliability. Current design will allow any DPC data to broadcast throughout the entire serving area's networks. If invalid data were to be broadcast this would be a difficult to troubleshoot and identify the source of	Pending DELETE as of 1/6/98	FRS/IIS	Moved to pending delete by originator.	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		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	WorldCom 1/8/97	Do Not Allow Port for the New NPA-NXX Involved in an Split Prior to Permissive Dialing Window It was requested that a check be put into the NPAC to insure that a pending port was not created for the new NPA-NXX	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.	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		involved in the split prior to the permissive dialing period. It was felt that setting the effective date of the new NPA-NXX to the same time as the permissive dialing period start was not enough of a safe guard.				
NANC 43	MCI 3/20/97	Report of SPs who initiated Audits for Another SP It has been requested that a report be added to the NPAC SMS to list for any given Service Provider the Service Providers who initiated audits against them. This would be useful for example, if TCG wants to bill any Service Provider which initiated audits of TCG's LSMS. The report that currently exists does the reverse. It lists the single provider showing all of the audits it requested of any one.	Pending DELETE as of 1/16/98	FRS	This feature has been targeted for Release 3. This change order has been closed due to the fact that Perot and Lockheed can create this report ad hoc upon request.	
NANC 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.	Medium
NANC 47	GTE NANC meeting 3/24/97	Time Zone Handling of multiple time zones within an NPAC SMS has been requested as a potential NPAC SMS enhancement. Currently this issue was to be investigated and framed for the group.	Pending DELETE as of 1/6/98	FRS/IIS	This functionality may be covered by ILL 9.	
NANC 49	GTE 3/26/97	Multiple SP Contacts for a Contact Type The FRS 0.1 and associated GDMO / ASN.1 in the IIS 1.5 currently allows only a single entry for each Service Provider Contact Type. See Table 3.3 - NPAC Customer Contact Data Model in the FRS for additional information on the Service Provider Contact Type.	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.	Medium Low

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
		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.				
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.	N/A
NANC 80	NANC 4/18/97	Audit indication of SP's not Audited Due to a Download Filter It has been requested that the audit results indicate the service providers not audited due to download filtering. This information would more accurately reflect to the audit initiator which LSMS' were actually audited.	Pending DELETE as of 1/6/98	FRS/IIS/ ASN.1/ GDMO	Audit changes have been viewed as a very low priority.	
NANC	NANC	Audit Download Filtered LSMS	Pending	FRS/IIS/	Audit changes have been viewed as a very low	N/A

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
81	4/18/97	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.	DELETE as of 1/6/98	ASN.1/ GDMO	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 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.	Low
NANC 120	Lockheed Martin 6/27/97	Filter Deletion If a filter is deleted that is for an NPA should the NPA-NXX filters that might have been added be deleted automatically. What behavior is desired? It may be that NPA-NXX filter where put in place before the NPA filter was deleted to now selectively down load NPA-NXX's instead of all in the NPA.	High	FRS	This clarification would be documented as an Assumption in the FRS. An assumption should be added to the FRS that reads: Assumption - Filter Deletion NPAC SMS shall upon deletion of a filter for a Service Provider not delete any other defined filters for that Service Provider. This change order has been combined with ILL 3.	

Deleted Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
					Closed.	
NANC 121	AGCS 7/16/97	lnpSpecificInfo attribute It has been pointed out that lnpSpecificInfo is an orphan attribute (and an orphan parameter). Some toolkits optimizes out the code for this attribute because it is not bound to any managed object. It has been requested that the references be made explicit.	Pending DELETE as of 8/22/97	IIS	This change order is currently ungrouped. The group has decided not to implement changes for certain compiler implementations. Many vendors have to change the file to accommodate their OSI tool kits.	
NANC 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.	

Deleted Change Orders

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
NANC 132	MCI 8/5/97	Update FRS Data Models Several issues found in testing that had to do with data fields - what constitutes valid data in all fields, both those that may or may not be required. In order that we do not continue to stumble across these things one at a time during testing or as new SPs come on board, it has been requested that the data models be updated. They should be updated to reflect what constitutes valid data for each field.	Pending Delete on 8/22/97	FRS	Upon further review no changes to the data models could be identified by the CMA. This change order will be left open for further review by the initiator. Deleted by initiator.	
NANC 150	AGCS 8/27/97	Subscription Version M-Delete to LSMS – Continued When a telephone number is being ported, the NPAC currently sends a request to the LSMS to create a new subscription version object. The LSMS is expected to search in its database to see if any existing subscription version object has the same telephone number. If such an object is found, the LSMS is expected to delete the existing object. It has been requested that an M-DELETE request be sent to the LSMS.	Delete Pending as of 10/10/97	FRS/IIS	The current approach has been documented. The current strategy is in place due to the LSMS wanting to manage their own history.	
NANC 167	NANC 10/1/1997	ILL 3 Clarification A note is to be added to change order 3 to indicate that overlapping filters are allowed and that filters can not be modified. Filters can only be created and deleted.	Low	FRS	This clarification to ILL 3 has been combined with ILL 3. Closed.	
NANC 205	NANC T&O 3/2/1998	Wireless Porting before Due Date 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.	Delete Pending 4-17-1998	FRS/IIS	Support of a new LNP Type was suggested as a solution to the need raised in this change order. The LNP Type could then be used by the NPAC for the edit on when an activate could occur. Today if both SP's concur and the due date specified on the SV is today then the activate could occur immediately. This may eliminate the need for change order NANC 201 or 149.	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort
					See wireless change order detail file. This change order has been withdrawal by the wireless wire line task force. Delete Pending 4/15/1998.	
NANC 208	NANC T&O 3/19/1998	CMIP Filtering of Notifications It has been suggested that support of CMIP filters per the standards be implemented in the NPAC SMS so that SOA and LSMS systems could filter the notifications they did not want to receive	Delete Pending 4-17-1998	IIS	Lockheed did not implement this functionality. It would be a large work effort to implement this functionality on the NPAC SMS. SOA and LSMS vendors would also have to change their software to support the CMIP filters. It was requested that SOA/LSMS vendors review this change order to determine if this functionality is desirable. SOA and LSMS vendors found this functionality to not be needed. The change order is delete pending 4/3/1998.	
NANC 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	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	

Deleted Change Orders
Chg Order #	**Orig. / Date**	**Description**	**Priority**	**Category**		**Final Resolution**	**Level of Effort**
						the NPAC were changed to "pre-filter" the TNs in the M-GET to the LSMS, extraneous data in the LSMS would not get cleaned up. For example, an LSMS contains an erroneous TN that is not in the NPAC. If this was "pre-filtered" by the NPAC, this would NOT get identified (and not get deleted from the LSMS). Moved to Pending Delete, per BST (Ron Steen), on 7/15/98.	
NANC 225	NextLink 7/7/98	Ability to modify a subscription from cancel pending to pending If an Old SP cancels a pending Subscription Version, the status goes to Cancel Pending, and currently remains in that state for 18 hours (cancellation T1 and cancellation T2 timers are each set to 9 business hours). If a New SP doesn't acknowledge the cancellation, they must wait for the 18 hours to run it's course before the SV goes into Conflict, where they could potentially put it back into Pending, then send up an activate request. The request of this change order is to allow the New SP to modify an SV from Cancel Pending to Pending, which would allow a subsequent activation request to be sent to the NPAC.		IIS/FRS		Discussed during 7/16/98 face-to-face T&O meeting. The group consensus is to move this change order to Pending Delete, and talk about this problem in the "problem resolution" discussion (i.e., don't want to change the flow of NPAC functionality and processing). The CMA has an action item to look at the edits for clarification of the six hour window, and see if it is still valid for the "cancel pending" to "conflict" scenario (NANC LNP Operation Flows, flow 6, cancellation conflict, step 8). CMA ANSWER: 8/3/98, yes, the six hour window is still valid in the case of cancel pending to conflict, even though the SV may have already gone through an eighteen hour window (T1 and T2) for the conflict.	
NANC 226	Tekelec 8/6/98	definitions for the value of the lsmsFilterNPA-NXXValue attribute The current ASN.1 definitions for the value of the lsmsFilterNPA-NXXValue attribute only allow for either		IIS/FRS		This change order is a different way of representing the data for Filters, and should be analyzed in conjunction with any Discussions of ILL 3.	

Chg Order #	Orig. / Date	Description	Priority	Category	Final Resolution	Level of Effort

		one or all of the instances to be retrieved by using a Get request with scope and filter.
		A much simpler and just as flexible way to specify NPA-NXX filters would be as follows:
		
		LsmsFilterValue ::= CHOICE {
		npa-nxx-flter [0] NPA-NXX-Filter
		receive-all-data [1] NULL
		}
		
		NPA-NXX-Filter ::= SEQUENCE {
		npa-value NPA,
		start-nxx-value NXX,
		stop-nxx-value NXX
		}
		
		This allows a single ASN.1 type to specify NPA, NPA-NXX and NPA-NXX-Range filters. Given that:
		
		919 000 999 - is equivalent to a NPA filter of 919
		919 361 361 - is equivalent to a NPA-NXX filter of 919 361
		919 200 299 - is equivalent to a NPA-NXX -Range filter (that cannot cross NPA boundaries)
					Sep LNPAWG (Seattle). This change order should maintain the same status as ILL-3, and should be moved to the "Pending-Delete" List.	

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 lnpSpecificInfoParameter 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 NANC 31 - IIS subscriptionOld/NewSP-DueDate Behavior Modification NANC 32 - IIS serviceProvNPA-NXX-Behavior Modification NANC 33 - IIS subscriptionAuditBehavior Modification NANC 36 - Low-tech Interface Requirements NANC 37 - Primitive Error List Modification NANC 38 - IIS Flow 6.4.1.6 Clarification NANC 39 - Section 4.2.2 Correction NANC 40 - SOA flows for NPA-NXX filter management NANC 41 - SubscriptionModifyData ASN.1 Tagging Correction NANC 42 - Documentation of lnpLocal-SMS-Name Value NANC 50 - Flow 6.5.1.6.2 Clarification NANC 52 - Flow 6.5.2.1, 6.5.2.3, and 6.5.3.1 Modification NANC 53 - Chapter 10 Modifications NANC 54 - Definition of Cause Code Values NANC 56 - Flow 6.5.2.3 and 6.5.2.4 corrections NANC 57 - Digital Signature Clarification	
Release 1.1	NANC 51 - OID Modification NANC 58 - Data Download for a Modify NANC 59 - Old SP Concurrence Request Notification NANC 60 - Range Operation Clarification NANC 61 - SubscriptionVersionModify Behavior Modification NANC 62 - Filter NPA-NXX Object Behavior Description/Modification NANC 63 - Flow 6.5.1.1 and 6.5.1.2 Modifications NANC 64 - Flow 6.5.1.1/6.5.1.2 objectCreation Notification Clarification NANC 65 - Flow 6.5.1.3/6.5.1.4 attributeValueChange Notification Clarification NANC 66 - Flow 6.5.5.2 Modification	

	NANC 67 - Flow 6.5.4.6 Modification NANC 69 - NANC 1.0 and IIS discrepancies resulting from Change Order #52 NANC 70 - FRS R5-26 Modify Subscription Version – Version Identification NANC 71 - IIS key size specification NANC 72 - Scoped/Filtered GET of Network Data from SOA NANC 73 - Universal Time format NANC 74 - GDMO for subscriptionVersionNewSP-CreateBehavior BEHAVIOUR NANC 75 - GDMO for subscriptionVersionModifyBehavior BEHAVIOUR NANC 76 - Purpose of subscriptionOldSP-DueDate NANC 78 - OID usage and NpacAssociationUserInfo	
Release 1.2	ILL 142 - MOC Definition Updates NANC 84 - LnpNetwork behavior update NANC 85 - Flow 6.5.5.1 Modification NANC 86 - Unique NPAC customer Ids NANC 87 - RR5-39 requirement modification NANC 88 - Id Naming attributes Non-zero NANC 91 - IIS Section 4.2.2 NANC 92 - Flow 6.5.3.2 Clarification NANC 93 - Date and Time in GDMO/ASN.1 NANC 94 - IIS NANC 1.1, section 4.2.1 NANC 95 - Reference: IIS NANC 1.1, section 4.2.2 NANC 96 - T2 timer not on subcriptionVersionNPAC NANC 97 - OID usage and NpacAssociationUserInfo NANC 98 - TSAP data required in FRS NANC 99 - NANC IIS 1.1, section 10 Subscription Version Status Row 2 NANC 100 - NANC IIS 1.1, section 10 Subscription Version Status Row 1 NANC 101 - SubscriptionVersionRemoveFromConflict Action Behavior modification NANC 102 - Key file exchange formats	
Release 1.3	NANC 89 - Action Scoping and Filtering Support NANC 103 - Clock Synchronization 5 or 2 Minutes	

	NANC 104 - Edits at Bind NANC 106 - Digital Signature Definitions NANC 107 - IIS Discrepancy with R5-25 NANC 111 - Validation of Association Functions NANC 115 - Country Code Discrepancy	
Release 1.4	NANC 105 - Download File Formats NANC 110 - PGP documentation NANC 112 - Key Expiration NANC 123 - IIS Section 10 Flow Clarification	
Release 1.5	NANC 51 - OID Modification NANC 124 - Null Character Padding NANC 126 - Use of Time in the Due Date NANC 135 - Download File Clarifications NANC 136 - Download File Carriage Return Clarification NANC 137 - Disconnect Active SV Behavior Clarification NANC 140 - Concurrence Timer Values NANC 141 - Cancel of Disconnect Pending	
Release 1.6	NANC 107 - IIS Discrepancy with R5-25 NANC 133 - Audit Object Definition NANC 134 - Disconnect Action Behavior Discrepancies NANC 143 - Subscription Version M-Delete to LSMS NANC 144 - Filter implementation in the NPAC SMS NANC 152 - Audit Number of TNs Notification NANC 155 - End User Location Type and Value Definition NANC 157 - Key exchange interval default value NANC 165 - Flow 6.5.5.2 Correction NANC 166 - Flow 6.5.4.1 Modification	
Release 1.7	NANC 130 - Notification to Old SP on Subsequent Port	

	NANC 142 - Port to Original Flow Clarifications NANC 161 - Subsequent Port Flow NANC 163 - NPA Split Implementation NANC 164 - Duplicate NPA-NXX's and LRN's NANC 170 - ActivationTS vs BroadcastTS in IIS Flows NANC 171 - Audit Response Error Code Clarification NANC 172 - LSMS accepting downloads in the Flows	
Release 1.8	NANC 173 - Flow 6.5.2.1 Modification NANC 176 - Modification of Status Change Cause Code NANC 182 - NPA-NXX effective date validation NANC 190 - NPA Split Requirement 33 Interpretation	
Release 1.9	ILL 181 - Key's for EACH Service Provider Interface NANC 188 - Mass Update Flow 6.7.4 Modification NANC 194 - Retry Tunables without Requirements in FRS NANC 196 - Activation Timestamp value sent to the LSMS	
Release 1.10	NANC 133 - Audit Object Definition NANC 197 - IIS Clarification for Congestion Handling NANC 209 - Documentation of NPA Split Query Behavior NANC 211 - Flow Modifications for Failed SP List Updates NANC 215 - Immediate Disconnects - Section 6.5.4 of the IIS	
Release 2.0	ILL 75 – Validate Due Date is > than the NPA-NXX effect date upon Pending Version Creation ILL 79 – Notification Recovery (GDMO/ASN.1 impact) ILL 131 – Creation of old SV for Every Change NANC 48 – Multiple Service Provider Ids per SOA Association NANC 68 – Mass Update Requirements Modification NANC 77 – Time Range ASN.1 definition NANC 83 – NPAC Time Synchronization	

	NANC 108 – IIS Discrepancy with R5-26
	NANC 113 – ASN.1 and GDMO for Notification Recovery
	NANC 114 – Download subscription-version-id-optional
	NANC 118 – CMIP Notification Recovery by Time Range
	NANC 131 – LRN- DownloadData Modification
	NANC 139 – Network Data Download to SOA
	NANC 145 – Notification Recovery Flows
	NANC 156 – 6.5.3.1 Flow Modification
	NANC 158 – Other Notification Recovery
	NANC 160 – Single TN in a Range Create
	NANC 162 – TN Attribute as GET-Replace
	NANC 178 – NANC 48 Clarifications
	NANC 184 – Response for Notification Recovery not Linked
	NANC 185 – Notification Recovery Error Response
	NANC 201 – Unique Sets of Timers
	NANC 202 – Unique Sets of Business Days/Hours
	NANC 203 – Wireless Addition of WSMSC DPC and SSN Information
	NANC 206 – Proposed ASN.1 Change ILL 79
	NANC 207 – Removal of Intermediate Notifications
	NANC 214 – Conflict Functionality with Due Date = Today
	NANC 220 – Wireless Due Date Clarification
	NANC 221 – Modification of NANC 201 and 202 For New SP Create
	NANC 222 – WSMSC Addition to Mass Update for NANC 203
	NANC 224 – Canadian Region NPAC ID
	NANC 233 – Documentation Change to IIS for 6.5.1.6 Active SV Create on Local SMS
	NANC 234 – Documentation Change to IIS for 5.2.1.10 Signature Data Type
	NANC 236 – Documentation Change to IIS for 6.5.1.12 SubscriptionVersion
	            Port-to-Original: Successful
	NANC 238 – Documentation Clarifications for Wireless Change Orders, NANC 201,
	            202, and 203	

Closed / No Action	ILL 11 - Portability Area Utilities, Screen, and Report Enhancements	

	ILL 76 - Portability Area Indicator for Service Providers NANC 116 - Filter Handling Issue between IBM and DSET NANC 117 - Generalized Time Issue NANC 127 - Use of Range Operations from the SOA NANC 128 - R7-111.2 Requirement Interpretation NANC 183 - PDU Size NANC 210 - IIS Flow 6.5.1.12 Modification NANC 213 - Subscription Version Download File Sorting NANC 223 - Suppress "snapback" notification to Donor SOA on LISP disconnect NANC 229 - Request for "Assurance of the Sequence of Transaction Processing".	
Deleted	ILL 3 - Enhancements to Screening of NPA-NXX Broadcast ILL 65 - Network Level Audit ILL 66 - Network Level Activation Capability ILL 67 - DPC Validation ILL 77 - Modification of NPA-NXX effective date ILL 98 - Limit of Mass Update Range ILL 131 - Creation of old SV for Every Change ILL 134 - Do Not Allow Port for the New NPA-NXX Involved in an Split Prior to Permissive Dialing Window NANC 43 - Report of SPs who initiated Audits for Another SP NANC 45 - Audit a list of Service Providers NANC 47 - Time Zone NANC 49 - Multiple SP Contacts for a Contact Type NANC 79 - Multiple SPIDs per Service Provider LSMS NANC 80 - Audit indication of SP's not Audited Due to a Download Filter NANC 81 - Audit Download Filtered LSMS NANC 82 - Mass Update SPID NANC 90 - SP Download Indicator Addition to IIS NANC 120 – Filter Deletion NANC 121 - lnpSpecificInfo attribute NANC 125 - Intra Service Provider Port – Port to Original	

	NANC 132 - Update FRS Data Models NANC 150 - Subscription Version M-Delete to LSMS – Continued NANC 167 – ILL 3 Clarification NANC 205 - Wireless Porting before Due Date NANC 208 - CMIP Filtering of Notifications NANC 212 - Activation Timestamp in M-GET Filter NANC 225 - Ability to modify a subscription from cancel pending to pending NANC 226 - Definitions for the value of the lsmsFilterNPA-NXXValue attribute	