

for the pending subscription version. If the service provider has not acknowledged version cancellation within a timeframe specified by the NPAC SMS, notifications will be sent requesting cancellation acknowledgment. The donor service provider SOA is notified of the customer's disconnect date. SOA systems are also sent notifications to insure they are aware of planned down time in the NPAC SMS.

2.3.4. Service Provider Data Administration

Service providers can use, read, and update their own service provider information on the NPAC SMS using the SOA to NPAC SMS interface. Service providers can update information in their service provider profile as well as add and delete their own network data. Changes to network data that result in mass updates are prevented by the NPAC SMS to SOA interface. Mass changes must be initiated by the service provider contacting the NPAC personnel directly.

2.4. NPAC SMS to Local SMS Interface

The NPAC SMS to Local SMS interface is used for communications between a service provider's Local SMS and the NPAC SMS for support of LNP network element provisioning. The following transactions occur to support Local Number Portability:

- Subscription version and network data download from the NPAC SMS to the Local SMS.
- Service provider data administration from the Local SMS to the NPAC SMS.
- Notifications from the NPAC SMS to the Local SMS of planned NPAC SMS outages and the first use of a new NPA-NXX.

Mapping of this functionality into the CMIP Definitions is provided in *Chapter 0 (see Exhibit 7.)*

2.4.1. Subscription Version and Network Data Download

When new network (new switches, NPA-NXX, or LRN data for service providers) or subscription data is created or existing network or subscription data is modified on the NPAC SMS, the data is automatically downloaded from the NPAC SMS to the Local SMS. The Local SMS may request that data be downloaded using a download request that is sent from the Local SMS to the NPAC SMS. The Local SMS then receives the data to be downloaded in the request response. Subscriber data to be downloaded can be requested based on time range, a TN, or a TN range and an optional local number portability type. Network data to be downloaded can be requested based on a time range, service provider or all service providers, an NPA-NXX range or all NPA-NXX data, an LRN range or all LRN data, or all network data can be requested.

Service providers can also directly read data they wish to download from the NPAC SMS MIB.

2.4.2. Service Provider Data Administration

Service providers can use, read, and update their own service provider information on the NPAC SMS using the Local SMS to NPAC SMS interface. Service providers can update information in their service provider profile as well as add and delete their own network data. Changes to network data that result in mass updates are prevented by the NPAC SMS to Local SMS interface. Mass changes must be initiated by the service provider contacting the NPAC personnel directly.

2.4.3. Notifications

Local SMS are sent notifications to insure they are aware of planned down time in the NPAC SMS. Local SMS are also sent notifications when a new NPA-NXX is to be used for the first time in a subscription version.

3. *Hierarchy Diagrams*

3

3.1. Overview

The following five exhibits show the class hierarchy diagram for all managed objects (*Exhibit 2*), Log Record Objects (*Exhibit 3*), the Local SMS (*Exhibit 4*), the NPAC SMS naming hierarchies for the Local SMS (*Exhibit 5*) and the SOA (*Exhibit 6*.) These exhibits will help the user gain a better understanding of the structure of the interface definitions provided.

3.1.1. Managed Object Model Inheritance Hierarchy

The Managed Object Model Inheritance Hierarchy shows the inheritance hierarchy used for object definitions in the NPAC SMS to Local SMS and the SOA to NPAC SMS interfaces.

Managed Object Model Inheritance

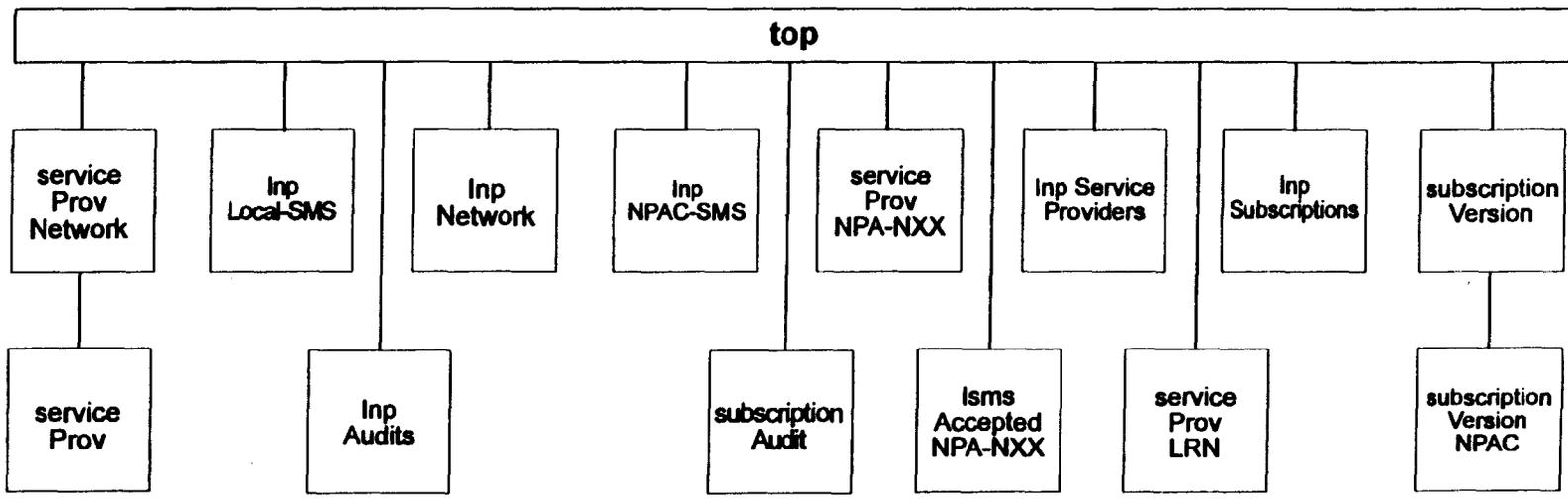


Exhibit 2. The Managed Object Model Inheritance Hierarchy

3.1.2. Log Record Managed Object Hierarchy

The Log Record Managed Object Hierarchy shows the inheritance hierarchy of the log records used in the NPAC SMS to Local SMS and SOA to NPAC SMS interfaces.

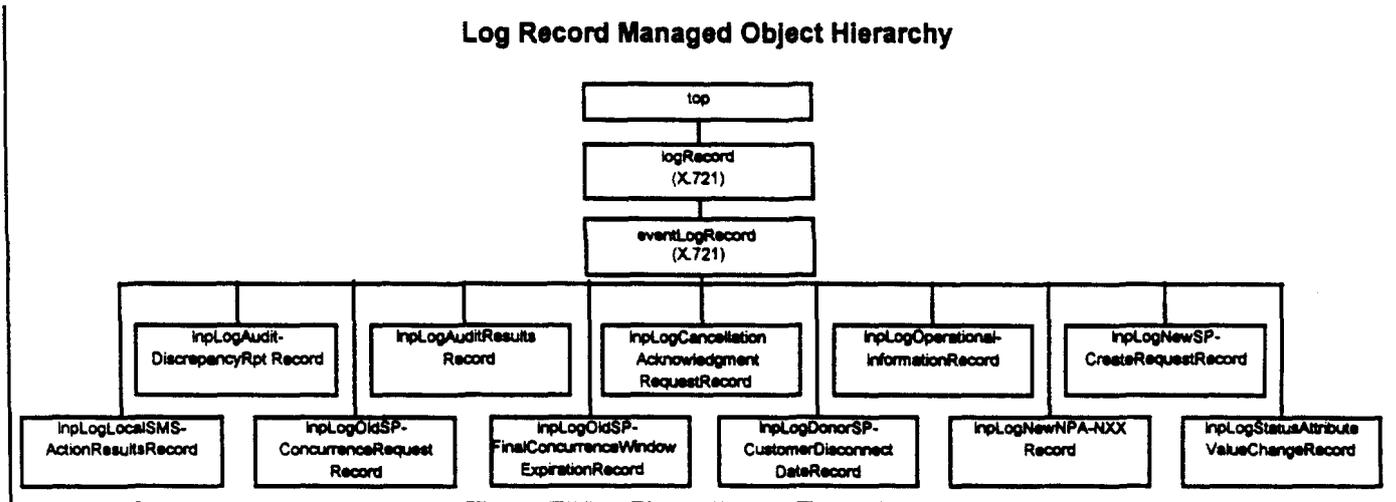


Exhibit 3 . Log Record Managed Object Hierarchy

3.1.3. NPAC SMS to Local SMS Naming Hierarchy for the NPAC SMS

The NPAC SMS to Local SMS Naming Hierarchy for the NPAC SMS shows the naming hierarchy used in the NPAC SMS to instantiate objects defined in the NPAC SMS to Local SMS interface.

Shaded objects are instantiated at NPAC SMS start-up and are not created via M-CREATE or M-DELETE requests. All other objects are created at start-up from a persistent object store on the NPAC SMS or from actions taken while the NPAC SMS is running.

Each object class belongs to one or more Association Functions.
Refer to *Section 0, Association Functions*.

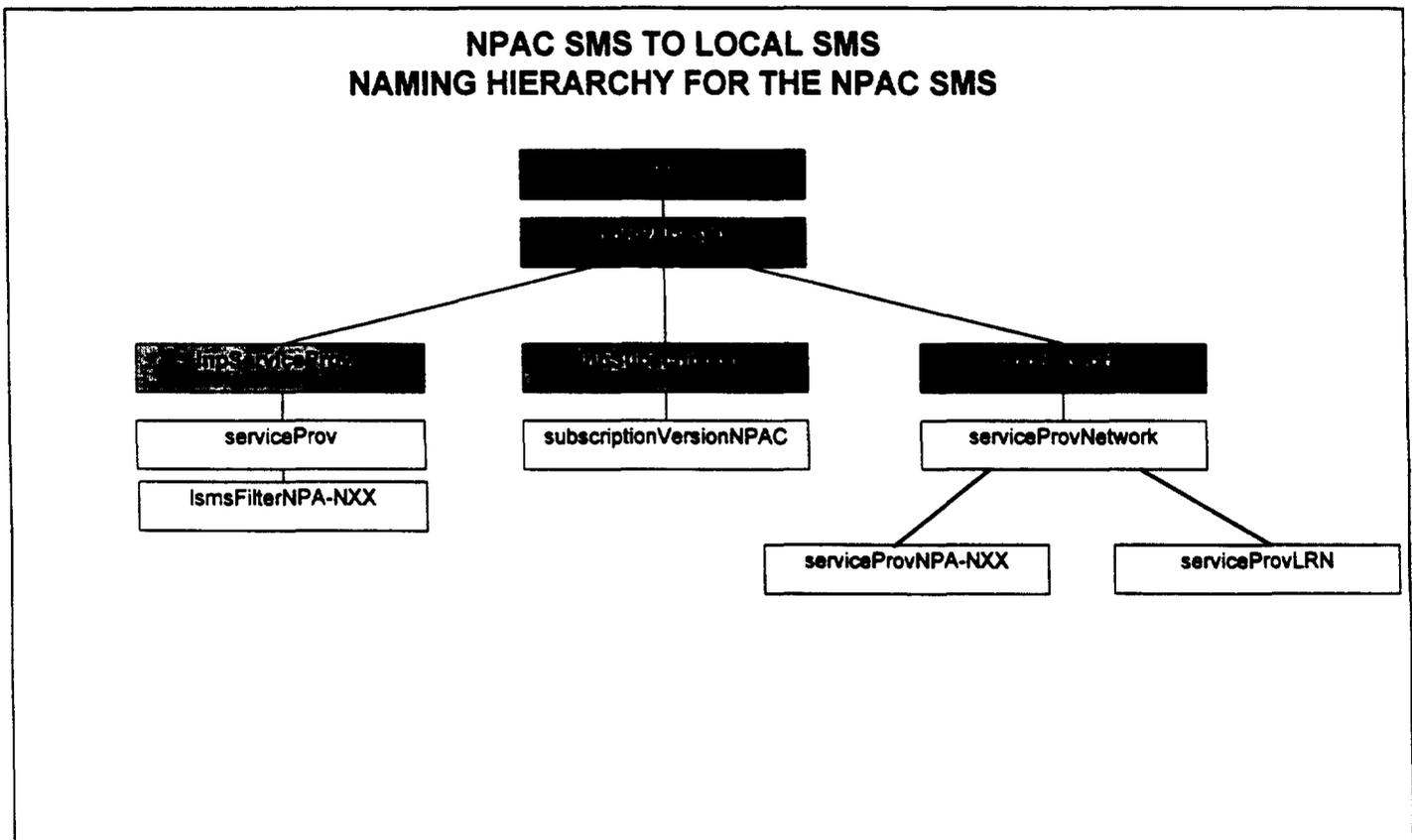


Exhibit 4. The NPAC SMS to Local SMS Naming Hierarchy for the NPAC SMS.

3.1.4. NPAC SMS to Local SMS Naming Hierarchy for the Local SMS

The NPAC SMS to Local SMS Naming Hierarchy for Local SMS shows the naming hierarchy used in the Local SMS to instantiate objects defined in the NPAC SMS to Local SMS interface.

Shaded objects are instantiated at Local SMS start-up and are not created via M-CREATE or M-DELETE requests. All other objects are created at start-up from a persistent object store on the Local SMS or from actions taken while the Local SMS is running.

Each object class belongs to one or more Association Functions.
Refer to *Section 0, Association Functions*.

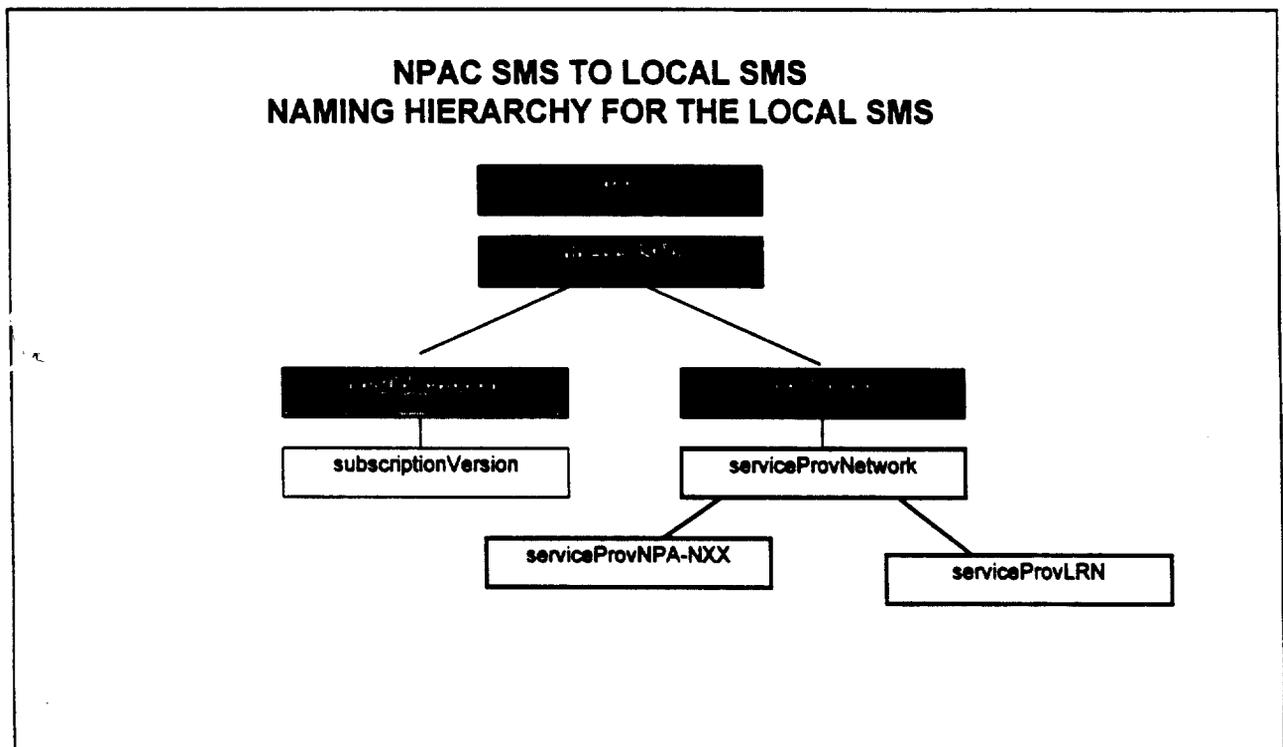


Exhibit 5. The NPAC SMS to Local SMS Naming Hierarchy for the Local SMS.

3.1.5. SOA to NPAC SMS Naming Hierarchy for the NPAC SMS

The SOA to NPAC SMS Naming Hierarchy for the NPAC SMS shows the naming hierarchy used in the NPAC SMS to instantiate objects defined in the SOA to NPAC SMS interface.

Shaded objects are instantiated at NPAC SMS start-up and are not created via M-CREATE or M-DELETE requests. All other objects are created at start-up from a persistent object store on the NPAC SMS or from actions taken while the NPAC SMS is running.

Each object class belongs to one or more Association Functions.
Refer to *Section 0, Association Functions*.

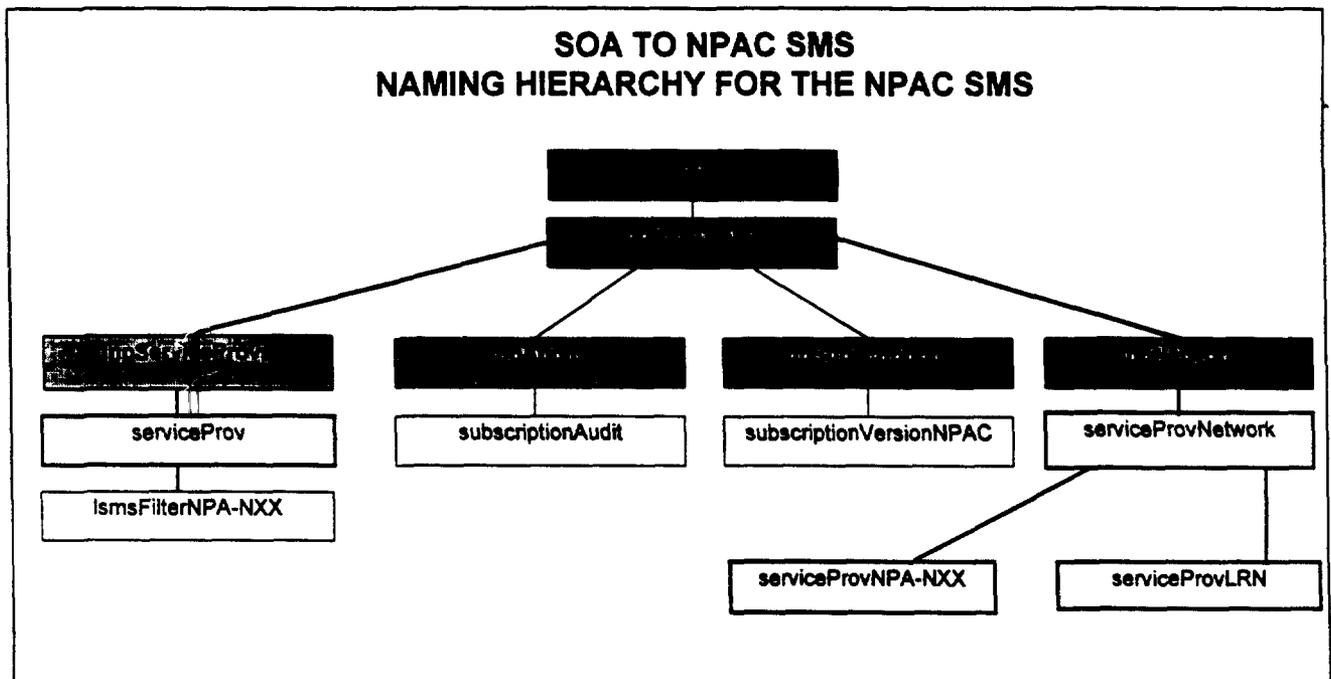


Exhibit 6. The SOA to NPAC SMS Naming Hierarchy for the NPAC SMS.

4. Interface Functionality to CMIP Definition Mapping

4

4.1. Overview

The following tables, Exhibits 7-11, contain the mapping of the interface functionality to managed objects, attributes, actions, and notifications.

4.1.1. Primary NPAC Mechanized Interface Operations

The primary interface functions in support of the NPAC requirements are described in the table below, as well as their corresponding Common Management Information Exchange (CMISE) operation and referenced object type for that operation. This table does not include miscellaneous operations, such as service provider network data querying or downloading, etc. These functions are described in the object behaviors in the GDMO source below.

Exhibit 7. Primary NPAC Mechanized Interface Operations Table

Function	Direction (To/From)	CMIP Operation	Referenced Object Type
Abort/Cancel Audit Request	from SOA	M-DELETE	subscriptionAudit
Audit Complete	to SOA	M-EVENT-REPORT: subscriptionAuditResults	subscriptionAudit
Audit Discrepancy	to SOA	M-EVENT-REPORT: subscriptionAuditDiscrepancyRpt	subscriptionAudit
Audit Query	from SOA	M-GET	subscriptionAudit
Audit Request SOA	from SOA	M-CREATE	subscriptionAudit
Cancellation Acknowledgement	from SOA (new service provider)	M-ACTION: subscriptionVersionNewSP-CancellationAcknowledge	InpSubscriptions
Cancellation Acknowledgement	from SOA (old service provider)	M-ACTION: subscriptionVersionOldSP-CancellationAcknowledge	InpSubscriptions
Conflict Removal	from SOA (new service provider)	M-ACTION: subscriptionVersionRemoveFromConflict	InpSubscriptions

Function	Direction (To/From)	CMIP Operation	Referenced Object Type
Customer Disconnect Date	to SOA	M-EVENT-REPORT: subscriptionVersionDonorSP- CustomerDisconnectDate	subscriptionVersionNPAC
<u>Final Request for Version Create</u>	to SOA (old service provider)	<u>M-EVENT-REPORT:</u> <u>subscriptionVersionOldSP-</u> <u>FinalConcurrenceWindowExpiration</u>	<u>subscriptionVersionNPAC</u>
LSMS Filter NPA- NXX Create	from LOCAL SMS	M-CREATE	lsmsFilterNPA-NXX
LSMS Filter NPA- NXX Delete	from LOCAL SMS	M-DELETE	lsmsFilterNPA-NXX
LSMS Filter NPA- NXX Query	from LOCAL SMS	M-GET	lsmsFilterNPA-NXX
Network Data Download	from LOCAL SMS	M-ACTION: InpDownload or M-GET: scoped and filtered for intended serviceProvLRN, serviceProvNPA-NXX service provider attributes	InpNetwork
Network Data Update	from LOCAL SMS or from SOA	M-CREATE: or M-SET: on relevant serviceProvLRN, serviceProvNPA-NXX service provider attributes	serviceProvLRN, serviceProvNPA-NXX
New NPA-NXX	to LOCAL SMS	M-EVENT-REPORT: subscriptionVersionNewNPA-NXX	subscriptionVersionNPAC
Recovery Complete	from LOCAL SMS	M-ACTION: InpRecoveryComplete	InpNPAC-SMS
Request for Cancellation Acknowledg- ment	to SOA	M-EVENT-REPORT: subscription VersionCancellationAcknowledgment Request	subscriptionVersionNPAC
Request for Version Create	to SOA (new service provider)	M-EVENT-REPORT: subscriptionVersionNewSPCreate Request	subscriptionVersionNPAC
Request for Version Create	to SOA (old service provider)	M-EVENT-REPORT: subscriptionVersionOldSPConcurrence Request	subscriptionVersionNPAC
Service Provider Network Creation	to LOCAL SMS	M-CREATE	serviceProvNetwork

Function	Direction (To/From)	CMIP Operation	Referenced Object Type
Service Provider Network Deletion	to LOCAL SMS	M-DELETE	serviceProvNetwork
Service Provider Network Service Provider Name Change	to LOCAL SMS	M-SET: serviceProvName	serviceProvNetwork
Subscription Version Activate	from SOA	M-ACTION: subscriptionVersionActivate	InpSubscriptions
Subscription Version Cancel	from SOA	M-ACTION subscriptionVersionCancel	InpSubscriptions
Subscription Version Change Notification	to SOA	M-EVENT-REPORT: attributeValueChangeNotification or subscriptionVersionStatusAttributeValue Change	subscriptionVersionNPAC
Subscription Version Conflict	from SOA (old service provider)	M-ACTION: subscriptionVersionOldSP-Create setting subscriptionOldSP-Authorization = FALSE Note: This is an enhancement based on the current IIS superseding RFP narrative 5.1.2.2 for manual-only conflict on/off	subscriptionVersion
Subscription Version Create	to LOCAL SMS	M-ACTION: subscriptionVersionLocalSMS-Create for multiple creates (i.e., range operations) where the data in the subscription versions is the same M-CREATE: for an individual subscriptionVersion	InpSubscriptions subscriptionVersion
Subscription Version Create	from SOA	M-ACTION: subscriptionVersionOldSP-Create or subscriptionVersionNewSP-Create	InpSubscriptions
Subscription Version Delete	to LOCAL SMS	M-DELETE: scoped and filtered for intended subscriptionVersion criteria	subscriptionVersion
Subscription Version Disconnect	from SOA	M-ACTION: subscriptionVersionDisconnect	InpSubscriptions
Subscription Version Download	to LOCAL SMS	M-ACTION: subscriptionVersionLocalSMS-Create or M-CREATE: for an individual subscriptionVersion	InpSubscriptions

Function	Direction (To/From)	CMIP Operation	Referenced Object Type
Subscription Version Download Request	from LOCAL SMS	M-ACTION: InpDownload or M-GET: scoped and filtered for intended subscriptionVersionNPAC criteria	InpSubscriptions
Subscription Version Modify	from SOA	M-ACTION: subscriptionVersion Modify or M-SET: on relevant subscriptionVersionNPAC attributes for pending, active, and conflict versions	InpSubscriptions
Subscription Version Modify	to LOCAL SMS	M-SET: scoped and filtered for intended subscriptionVersion criteria setting relevant attributes	InpSubscriptions
Subscription Version Query	from SOA from LOCAL SMS	M-GET: scoped and filtered for intended subscriptionVersionNPAC criteria setting relevant attributes	InpSubscriptions
Subscription Version Query	to LOCAL SMS	M-GET: scoped and filtered for intended subscriptionVersion criteria	InpSubscriptions

4.1.2. Managed Object Interface Functionality

The table below contains the mapping of the SOA to NPAC SMS and the Local SMS to NPAC SMS managed objects to the interface functionality described in the RFP.

Exhibit 8. Managed Object Interface Functionality Table

Managed Object Name	Interface Functionality Mapping
InpAudits	Container object used to contain all subscription audit objects on the NPAC SMS and the Local SMS. It is used in the SOA to NPAC SMS interface to support audit functionality.
InpLocal SMS	Container object used to contain all objects on a Local SMS. It is used in the NPAC SMS to Local SMS interface to support NPAC SMS communication to the service provider Local SMS system.
InpLogAudit- DiscrepancyRptRecord	Object used to log information from a subscriptionAudit-DiscrepancyRpt notification.
InpLogAuditResultsRecord	Object used to log information from a subscriptionAuditResults notification.

Managed Object Name	Interface Functionality Mapping
InpLogCancellationAcknowledgeRequestRecord	Object used to log information from a subscriptionVersionCancellationAcknowledgeRequest notification.
InpLogDonorSP-CustomerDisconnectDateRecord	Object used to log information from a subscriptionVersionDonorSP-CustomerDisconnectDate notification.
InpLogLocalSMS-ActionResultsRecord	Object used to log information from a subscriptionVersionLocalSMS-ActionResults notification.
InpLogNewNPA-NXXRecord	Object used to log information from a subscriptionVersionNewNPA-NXX notification.
InpLogNewSP-CreateRequestRecord	Object used to log information from a subscriptionVersionNewSP-CreateRequest notification.
InpLogOldSP-ConcurrenceRequestRecord	Object used to log information from a subscriptionVersionOldSP-ConcurrenceRequest notification.
<u>InpLogOldSP-FinalConcurrenceWindowExpiration</u>	<u>Object used to log information from a subscriptionVersionOldSP-FinalConcurrenceWindowExpiration notification</u>
InpLogOperational-InformationRecord	Object used to log information from a InpNPAC-SMS-Operational-Information notification.
InpLogStatusAttributeValueChangeRecord	Object used to log information from a subscriptionVersionStatusAttributeValueChange notification.
InpNetwork	Container object used to contain all service provider network data on the NPAC SMS and the Local SMS. It is used in the NPAC SMS to Local SMS interface to support downloading of network data to the Local SMS and the functionality that allows service providers to create/delete their network data on the NPAC SMS.
InpNPAC-SMS	Container object used to contain all objects on a NPAC SMS. It is used in the NPAC SMS to Local SMS interface to support NPAC SMS communication from the service provider Local SMS and the SOA systems.
InpServiceProvs	Container object used to contain all service provider data on the NPAC SMS. It is used in the NPAC SMS to Local SMS interface to support retrieving of service provider data from the Local SMS and the functionality that allows service providers to update their service provider data on the NPAC SMS. Service providers can only retrieve their own service provider data.
InpSubscriptions	Container object used to contain all subscription versions on the NPAC SMS and the Local SMS. It is used in the NPAC SMS to Local SMS interface to support query of subscription data on the NPAC SMS and downloading of subscription data to the Local SMS.
IsmsFilterNPA-NXX	Object used to represent the NPA-NXX values for which a service provider does not want to be informed of subscription version broadcasts.

Managed Object Name	Interface Functionality Mapping
serviceProv	Object used to represent a service provider and its associated data on the NPAC SMS. These objects are used in the NPAC SMS to Local SMS interface to support retrieving of service provider data from the Local SMS and the functionality that allows service providers to update their service provider data on the NPAC SMS except serviceProvId and serviceProvType. Service providers can only retrieve their own service provider data.
serviceProvLRN	Object used to represent an LRN associated with a service provider on the NPAC SMS or the Local SMS. These objects are used to support downloading of network LRN data to the Local SMS and the functionality that allows service providers to create/delete their own network LRN data. The service provider will have to add a new object and delete the old one to modify the data.
serviceProvNetwork	Container object used to contain network data for a service provider on the NPAC SMS and the Local SMS. It is used in the NPAC SMS to Local SMS interface to support downloading of network data to the Local SMS and the functionality that allows service providers to update their network data on the NPAC SMS.
serviceProvNPA-NXX	Object used to represent an NPA-NXX associated with a service provider on the NPAC SMS or the Local SMS. These objects are used to support downloading of network NPA-NXX data to the Local SMS and the functionality that allows service providers to create/delete their own network NPA-NXX data. NPA splits are supported only through direct contact with NPAC personnel.
subscriptionAudit	Object used to represent a subscription audit request on the NPAC SMS. These objects are used to support subscription audit requests from the SOA to the NPAC SMS using the SOA to NPAC SMS interface. The object supports notifications for audit discrepancies found and audit completion results.
subscriptionVersion	Object used to represent a subscription version on the Local SMS. These objects are used to support subscription version download from the NPAC SMS to the Local SMS using the NPAC SMS to Local SMS interface.
subscriptionVersionNPAC	Object used to represent a subscription version on the NPAC SMS. These objects are used to support subscription administration from the SOA using the SOA to NPAC SMS interface. Capability is provided for version creation, activation, modification, cancellation, and disconnect.

4.1.3. Attribute Interface Functionality

The table below contains the mapping of the SOA to NPAC SMS and the Local SMS to NPAC SMS attributes to the interface functionality described in the RFP.

Exhibit 9. Attribute Interface Functionality Table

Attribute Name	Interface Requirements Mapping
accessControl	This attribute is used to define access control information for security. It is used in the NPAC SMS to Local SMS and SOA to NPAC SMS interfaces.
actionResultsStatus	This attribute is used to store the status of an action that sends back an asynchronous notification with the results.

Interface Functionality to CMIP Definition Mapping

Attribute Name	Interface Requirements Mapping
additionalDownTimeInformation	This attribute is used to provide additional information about a planned NPAC SMS outage. It is used to support the notification of operational outages to the service provider SOA and Local SMS systems using the SOA to NPAC SMS interface and the NPAC SMS to Local SMS interface.
auditDiscrepancyFailureReason	This attribute is used to specify the failure reason for a discrepancy in the InpLogAudit-DiscrepancyRptRecord.
auditDiscrepancyLSMS-SP-Id	This attribute is used to specify the service provider Id of the

Attribute Name	Interface Requirements Mapping
InpServiceProvsName	This attribute is used to specify the name of the service provider data container. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
InpSpecificInfo	This attribute is used to pass specific error information in the case of a cmip processing failure error.
InpSubscriptionsName	This attribute is used to specify the name of the subscription container. It is used to support subscription download functionality to the service provider Local SMS systems and subscription administration functionality for the SOA systems using the SOA to NPAC SMS and Local SMS to NPAC SMS interfaces.
IsmsFilterNPA-NXX-Id	This attribute is used to specify the LSMS Filter NPA-NXX unique identifier. It supports the broadcast of subscription versions.
IsmsFilterNPA-NXX-Value	This attribute is used to specify the service provider NPA-NXX value. It supports the broadcast of subscription versions.
npacContactNumber	This attribute is used to indicate the NPAC contact number to be called concerning an NPAC SMS outage. It is used to support the notification of operational outages to the service provider SOA and Local SMS systems using the SOA to NPAC SMS interface and the NPAC SMS to Local SMS interface.
npacCustomerAllowableFunctions	This attribute is used to specify what functions a service provider can perform on the SOA to NPAC SMS and NPAC SMS to Local SMS interfaces.
resultsCompletionTime	This attribute is used to store the completion time of the action in the action results notification.
serviceProvAddress	This attribute is used to specify the service provider address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvBillingAddress	This attribute is used to specify the service provider billing address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvConflictAddress	This attribute is used to specify the service provider conflict address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
serviceProvDownloadReason	This attribute is used to specify the reason for download in the serviceProvLRN and serviceProvNPA-NXX objects. It is used in the NPAC SMS to Local SMS Interface.
serviceProvID	This attribute is used to specify the service provider Id to uniquely identify a service provider object. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvLRN-ID	This attribute is used to specify the service provider LRN unique identifier. It is used to support downloading of network LRN data to the Local SMS and the functionality that allows service providers to update their own network LRN data.
serviceProvLRN-CreationTimeStamp	This attribute is used to specify the last date and time the serviceProvLRN object was created on the NPAC SMS. It is used in the NPAC SMS to Local SMS Interface.
serviceProvLRN-Value	This attribute is used to specify the value for a service provider LRN associated with an NPA-NXX.
serviceProvLSMS-Address	This attribute is used to specify the service provider Local SMS contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvName	This attribute is used to specify the service provider English name. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvNetAddress	This attribute is used to specify the service provider Network operations contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvNPA-NXX-EffectiveTimeStamp	This attribute is used to specify the effective date on which the service provider NPA-NXX is available for LNP. It is used in the NPAC SMS to Local SMS interface.
serviceProvNPA-NXX-ID	This attribute is used to specify the service provider NPA-NXX unique identifier. It is used to support downloading of network NPA-NXX data to the Local SMS and the functionality that allows service providers to update their own network NPA-NXX data.
serviceProvNPA-NXX-CreationTimeStamp	This attribute is used to specify the date and time the serviceProvNPA-NXX object was created. It is used in the NPAC SMS to Local SMS Interface.

Attribute Name	Interface Requirements Mapping
serviceProvNPA-NXX-Value	This attribute is used to specify the service provider NPA-NXX value. It is used to support downloading of network NPA-NXX data to the Local SMS.
serviceProvOperationsAddress	This attribute is used to specify the service provider operations contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvRepairCenterInfo	This attribute is used to specify the repair center information for a service provider.
serviceProvSOA-Address	This attribute is used to specify the service provider SOA contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvSysLinkInfo	This attribute is used to specify the service provider network address connectivity data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS interface and the SOA to NPAC SMS interface.
serviceProvUserAdminAddress	This attribute is used to specify the service provider user administration contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
serviceProvWebAddress	This attribute is used to specify the service provider web contact address data. It is used to support service provider data query and the Lockheed Martin functionality for service provider data update in the NPAC SMS using the Local SMS to NPAC SMS or SOA to NPAC SMS interface.
subscriptionActivationTimeStamp	This attribute is used to specify the subscription version activation time stamp. It is used to support service provider data administration in NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionAuditAttributeList	This attribute is used to specify a list of attributes in a subscription version that are to be audited. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditId	This attribute is used to uniquely identify an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
subscriptionAuditName	This attribute is used to give an English name to an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS.
subscriptionAuditNonPortedTNs	This attribute is used to specify if non-porting TNs should be audited in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditNumberOfTNs	This attribute is used to specify the number of TNs being audited in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditNumberOfTNsComplete	This attribute is used to specify the number of TNs that have been successfully audited in a complete or in progress audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditRequestingSP	This attribute is used to specify the service provider Id that requested the audit.
subscriptionAuditServiceProvIdRange	This attribute is used to identify a specific service provider or if all service providers should be audited in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditStatus	This attribute is used to specify the status of an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditTN-ActivationRange	This attribute is used to specify the activation date and time range for TNs to be audited in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditTN-AtSuspend	This attribute is used to specify the last TN that was audited when an audit request was suspended in the network. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditTN-NotificationNumber	This attribute is used to specify the number of TNs that have completed audit before the number of subscriptionAuditNumberOfTNsComplete gets incremented in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionAuditTN-Range	This attribute is used specify the range of TNs to be audited in an audit request. It is used to support audit functionality from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
subscriptionBillingId	This attribute is used to specify the subscription version service provider billing Id. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionBroadcastTimeStamp	This attribute is used to specify the subscription version's broadcast from the NPAC SMS to the Local SMS systems time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionCancellationTimeStamp	This attribute is used to specify the subscription version cancellation time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionCLASS-DPC	This attribute is used to specify the subscription version CLASS DPC Type. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionCLASS-SSN	This attribute is used to specify the subscription version CLASS SSN. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionCNAM-DPC	This attribute is used to specify the CNAM DPC in the subscriptionVersion object. It is used in the both the NPAC SMS to Local SMS Interface and the SOA to NPAC SMS Interface.
subscriptionCNAM-SSN	This attribute is used to specify the CNAM SSN in the subscriptionVersion object. It is used in the both the NPAC SMS to Local SMS Interface and the SOA to NPAC SMS Interface.
subscriptionConflictTimeStamp	This attribute is used to specify the subscription conflict time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
subscriptionCreationTimeStamp	This attribute is used to specify the subscription version creation time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionCustomerDisconnectDate	This attribute is used to specify the timestamp of when the customer was disconnected.
subscriptionDisconnectCompleteTimestamp	This attribute is used to specify the timestamp of when the subscription version was disconnect. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.
subscriptionDownloadReason	This attribute is used to specify the reason for download in the subscriptionVersion objects. It is used in the NPAC SMS to Local SMS Interface.
subscriptionEffectiveReleaseDate	This attribute is used to specify the subscription version disconnect date. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionEndUserLocationType	This attribute is used to specify the subscription version end user location type. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionEndUserLocationValue	This attribute is used to specify the subscription version end user location value. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionFailed -SP-List	This attribute is used to store the failed service providers after a subscription version broadcast results in a failed or partially-failed subscription version status.
subscriptionISVM-DPC	This attribute is used to specify the ISVM DPC in the subscriptionVersion object. It is used in both the NPAC SMS to Local SMS Interface and the SOA to NPAC SMS Interface.
subscriptionISVM-SSN	This attribute is used to specify the ISVM SSN in the subscriptionVersion object. It is used in both the NPAC SMS to Local SMS Interface and the SOA to NPAC SMS Interface.

Attribute Name	Interface Requirements Mapping
subscriptionLIDB-DPC	This attribute is used to specify the subscription version LIDB DPC. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionLIDB-SSN	This attribute is used to specify the LIDB SSN in the subscriptionVersion object. It is used in both the NPAC SMS to Local SMS Interface and the SOA to NPAC SMS Interface.
subscriptionLNPTType	This attribute is used to specify the subscription version LNP Type. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionLRN	This attribute is used to specify the LRN data for the subscription version. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionModifiedTimeStamp	This attribute is used to specify the timestamp of any modifications to the subscription version. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionNewCurrentSP	This attribute is used to specify the current or new service provider for the subscription version. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionNewSP-CreationTimeStamp	This attribute is used to specify the subscription version new service provider creation time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionNewSP-CancellationTimeStamp	This attribute is used to specify the time stamp of the subscription version cancellation pending acknowledgment by the new service provider. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
subscriptionNewSP-ConflictResolutionTimeStamp	This attribute is used to specify the time stamp of when the subscription version was removed from conflict by the new service provider. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.
subscriptionNewSP-DueDate	This attribute is used to specify the new service provider activation date and time for the subscription version. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionOldSP	This attribute is used to specify the old SP for the subscription version. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionOldSP-Authorization	This attribute is used to specify the subscription version old service provider authorization indication. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionOldSP-AuthorizationTimeStamp	This attribute is used to specify the subscription version old service provider authorization time stamp. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionOldSP-CancellationTimeStamp	This attribute is used to specify the time stamp of the subscription version cancellation pending acknowledgment by the old service provider. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.
subscriptionOldSP-ConflictResolutionTimeStamp	This attribute is used to specify the time stamp of when the subscription version was removed from conflict by the old service provider. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.

Attribute Name	Interface Requirements Mapping
subscriptionOldSP-DueDate	This attribute is used to specify the subscription version cutover time stamp to the new service provider. It is used to support service provider data administration in NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionOldTimeStamp	This attribute is used to specify the subscription version time stamp when the version became old. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionPortingToOriginal-SPSwitch	This attribute is used to specify that subscription version is being ported back to the original service provider. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to the NPAC SMS interface.
subscriptionPreCancellationStatus	This attribute is used to specify the previous status of a cancel-pending subscription version. Valid values are pending, conflict, sending, active, failed, failed partial, and disconnect-pending.
subscriptionStatusChangeCauseCode	This attribute is used to specify the reason a subscription version went into conflict.
subscriptionTN	This attribute is used to specify the subscription version TN for a subscription version. It is used to support service provider data administration using the SOA to NPAC SMS interface and the NPAC SMS to Local SMS interface.
subscriptionVersionAttributeValueChangeInfo	This attribute is used to specify the attribute value change information in the InpLogVersionAttributeValueChangeRecord.
subscriptionVersionId	This attribute is used to specify the unique version id for the subscription version in the NPAC SMS. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.
subscriptionVersionStatus	This attribute is used to specify the subscription version status. It is used to support service provider data administration in the NPAC SMS using the SOA to NPAC SMS interface and subscription version download from the NPAC SMS to the Local SMS using the Local SMS to NPAC SMS interface.

4.1.4. Action Interface Functionality

The table below contains the mapping of the SOA to NPAC SMS and the Local SMS to NPAC SMS actions to the interface functionality described in the RFP.

Exhibit 10. The Action Interface Functionality Table

Action Name	Interface Requirements Mapping
lnpDownload	This action is used to support the downloading of subscription and network data to the Local SMS from the NPAC via the NPAC SMS to Local SMS interface.
lnpRecoveryComplete	This action is used to specify the system has recovered from down time and the transactions performed since the association establishment can now be sent to the Local SMS from the NPAC SMS using the Local SMS to NPAC SMS interface.
subscriptionVersionActivate	This action is used to support subscription version activation by the new service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionCancel	This action is used to support subscription version cancellation by a service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionDisconnect	This action is used to support subscription version disconnection by the current service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionLocalSMS-Create	This action can be used by the NPAC SMS to create multiple subscription versions via the Local SMS to NPAC SMS interface.
subscriptionVersionModify	This action is used to support subscription version modification by a service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionNewSP-CancellationAcknowledge	This action is used to support the acknowledgment of subscription versions with a status of cancel-pending by the old service from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionNewSP-Create	This action is used to support subscription version creation by the new service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionOldSP-CancellationAcknowledge	This action is used to support the acknowledgment of subscription versions with a status of cancel-pending by the old service from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersionOldSP-Create	This action is used to support subscription version creation by the old service provider from the SOA to the NPAC SMS using the SOA to NPAC SMS interface.
subscriptionVersion RemoveFromConflict	This action is used on the NPAC SMS via the SOA to NPAC SMS interface to set the subscription version status from conflict to pending.

4.1.5. Notification Interface Functionality

The table below contains the mapping of the SOA to NPAC SMS and the Local SMS to NPAC SMS notifications to the interface functionality described in the RFP.

Exhibit 11. The Notification Interface Functionality Table

Notification Name	Interface Requirements Mapping
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