**Origination Date:** 05/07/13

**Originator:** LNPAWG

### Change Order Number: NANC 454

**Description:** Remove Unused Messages from the NPAC

**Functional Backwards Compatible:** No

**IMPACT/CHANGE ASSESSMENT**

|  |  |  |
| --- | --- | --- |
| DOC | FRS | IIS |
| Y | Y |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CMIP | GDMO | ASN.1 | **NPAC** | SOA | LSMS |
| Y | N | N | N | N |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| XML | XIS | XSD | **NPAC** | SOA | LSMS |
| N | N | N | N | N |

**Business Need**

During the discussion of NANC 372 and the XML Interface, it was stated that two types of messages in the CMIP interface were not used:

1. The NPAC does not use the CMIP message to indicate scheduled downtime.
2. The SOA and LSMS do not use the CMIP message for creating their own NPA-NXX Filters

For scheduled downtime, Neustar has contractual arrangements with the NAPM and the CLNPC on the dates and times involved in regularly scheduled downtime (Sunday morning, various durations). Therefore a CMIP message mechanism is not needed.

For NPA-NXX Filters, all Service Providers utilize the NPAC Help Desk procedures where NPAC Personnel manage NPA-NXX Filters for the given Service Providers. Although part of the original system design, Neustar is unaware of any Service Provider that has the self-management of NPA-NXX Filters in their local systems today.

**Description of Change:**

This change order is being created to remove unused CMIP messages from the NPAC.

The proposed change is to delete the following:

1. The notification, lnpNPAC-SMS-Operational-Information. This is sent from the NPAC to the SOA, and the NPAC to the LSMS.
2. The management of the lsmsFilterNPA-NXX object. This includes creating (M-CREATE Request), deleting (M-DELETE Request), querying (M-GET Request).

Requirements:

FRS:

Update narrative and remove requirements.

Update narrative in section 2.5 to remove reference to NPAC SMS sending the operations information notification.

[snip]

2.5. Disaster Recovery and Backup Process.

### 2.5.1 LNPA personnel determine downtime requirement

If there is planned downtime for the NPAC SMS, the LNPA will send an electronic notification to the Service Providers that includes information on when the downtime will start, how long it will be, and if they will be required to switch to the backup or disaster recovery machine. Downtime is considered planned when the LNPA can provide notification to the Service Providers at least 24 hours in advance.

If there is unplanned downtime, the LNPA will assess how long the primary machine will be down. The LNPA will notify all of the Service Providers by electronic notification and telephone calls to the Service Providers' contact numbers. The notification will describe the situation and the planned action. The Service Providers will attempt to switch to the backup NPAC.

### 2.5.2 LNPA notifies Service Providers of switch to backup NPAC and start of cutover quiet period

The NPAC Service Providers will switch to the backup or disaster recovery machine as indicated in the email notification from the LNPA.

### 2.5.3 Service providers connect to backup NPAC

The Service Providers must use an alternate connection route to the backup NPAC and establish associations with the backup NPAC application.

### 2.5.4 LNPA notifies Service Providers of application availability and end of cutover quiet period on the backup NPAC

When the backup NPAC application and database are on-line, processes will proceed as normal. The backup NPAC application will be at the same version level as the primary NPAC application. The NPAC SMS database will also contain the same routing information as the primary database.

### 2.5.5 Service providers conduct business using backup NPAC

The Service Provider should continue to process as normal when connected to the backup NPAC.

### 2.5.6 LNPA notifies Service Providers of switch to primary NPAC and start of cutover quiet period

When the primary machine is brought back up, the LNPA will advise the Service Providers of the timing of their switch back to the primary machine.

### 2.5.7 Service providers reconnect to primary NPAC

The Service Providers re-establish associations with the primary NPAC application using their normal connections.

### 2.5.8 LNPA notifies Service Providers of availability and end of cutover quiet period

When the primary NPAC is available, the LNPA will notify Service Providers of the end of the cutover quiet period.

[snip]

3.6.1 NPA-NXX Level Filters, delete RR3-5, RR3-6, RR3-7, RR3-8, RR3-9, RR3-769.

[snip]

## 3.6 NPA-NXX Filter Management Requirements

NPA-NXX filter management can only be performed by NPAC Personnel on behalf of Service Providers.

### 3.6.1 NPA-NXX Level Filters

RR3-769 NPA-NXX Level Filters – Local System Management – CMIP Interface Only

DELETED

RR3-5 Create Filtered NPA-NXX for a Local SMS and SOA

DELETED

RR3-6 Delete Filtered NPA-NXX for a Local SMS and SOA

DELETED

RR3-7 Query Filtered NPA-NXXs for a Local SMS and SOA

DELETED

RR3-8 Query Filtered NPA-NXXs - NPA-NXX Not Provided

DELETED

RR3-9 Query Filtered NPA-NXXs - NPA-NXX Provided

DELETED

RR3-768 Delete Filtered NPA-NXX – Deletion of NPA-NXX

NPAC SMS shall delete an NPA-NXX filter when the corresponding NPA-NXX network data is deleted.

[snip]

**Section 6.7.1**, Notification Recovery, remove lnpNPAC-SMS-Operational-Information from requirement RR6-29.

[snip]

RR6-29 Notification Recovery

NPAC SMS shall support recovery of all CMIP notifications defined in the IIS that are emitted over the NPAC SMS-to-Local SMS interface and SOA-to-NPAC SMS interface. Examples of notifications to be recovered include:

1. subscriptionVersionNewNPA-NXX
2. subscriptionVersionDonorSP-CustomerDisconnectDate
3. subscriptionAudit-DiscrepancyRpt
4. subscriptionAuditResults
5. ~~lnpNPAC-SMS-Operational-Information~~
6. subscriptionVersionNewSP-CreateRequest (time sensitive T1 New SP)
7. subscriptionVersionOld-SP-ConcurrenceRequest (time sensitive T1 Old SP)
8. subscriptionVersionOldSPFinalWindowExpiration (time sensitive T2 Old SP)
9. subscriptionVersionStatusAttributeValueChange
10. numberPoolBlockStatusAttributeValueChange
11. attributeValueChange
12. objectCreation
13. objectDeletion
14. subscriptionVersionNewSP-FinalCreateWindowExpiration (if supported by the recovering SOA)

* subscriptionVersionRangeStatusAttributeValueChange
* subscriptionVersionRangeAttributeValueChange
* subscriptionVersionRangeObjectCreation
* subscriptionVersionRangeDonorSP-CustomerDisconnectDate
* subscriptionVersionRangeNewSP-CancellationAcknowledge
* subscriptionVersionRangeNewSP-CreateRequest
* subscriptionVersionRangeOldSP-ConcurrenceRequest
* subscriptionVersionRangeOldSPFinalConcurrenceWindowExpiration
* subscriptionVersionRangeNewSPFinalCreateWindowExpiration

For a complete list of notifications reference the IIS.

[snip]

Appendix E, Notification Download File, remove lnpNPAC-SMS-Operational-Information.

[snip]

|  |  |  |
| --- | --- | --- |
| subscription Audit-objectDeletion | | |
| 1 | Creation TimeStamp | For example: 19960101155555  If the SOA supports the Last Activity Timestamp in the BDD, then the Message Origination TimeStamp will be used in place of the Creation TimeStamp. The Creation TimeStamp uses the format yyyymmddhhmmss, and the Message Origination TimeStamp uses the format yyyymmddhhmmss.fff. |
| 2 | Service Provider ID | 1003 |
| 3 | System Type | 0 |
| 4 | Notification ID | 1007 |
| 5 | Object ID | 19 |
| 6 | Audit ID | 5049 |
| ~~lnpNPAC-SMS-Operational-Information~~ | | |
| ~~1~~ | ~~Creation TimeStamp~~ | ~~For example: 19960101155555~~  ~~If the SOA supports the Last Activity Timestamp in the BDD, then the Message Origination TimeStamp will be used in place of the Creation TimeStamp. The Creation TimeStamp uses the format yyyymmddhhmmss, and the Message Origination TimeStamp uses the format yyyymmddhhmmss.fff.~~ |
| ~~2~~ | ~~Service Provider ID~~ | ~~0001~~ |
| ~~3~~ | ~~System Type~~ | ~~0~~ |
| ~~4~~ | ~~Notification ID~~ | ~~1~~ |
| ~~5~~ | ~~Object ID~~ | ~~12~~ |
| ~~6~~ | ~~Maintenance Start Time~~ | ~~20050530020000~~ |
| ~~7~~ | ~~Maintenance End Time~~ | ~~20050530060000~~ |
| ~~8~~ | ~~NPAC Contact Number~~ | ~~8883321000~~ |
| ~~9~~ | ~~Additional Downtime Information~~ | ~~(graphic string 255)~~ |

[snip]

IIS:

Remove narrative and flows.

Several references to lnpNPAC-SMS-Operational-Information.

**Section 4.1.2** Managed Object Interface Functionality, Exhibit 9:

[snip]

|  |  |
| --- | --- |
| lnpLogOldSP- FinalConcurrenceWindow- Expiration | Object used to log information from a subscriptionVersionOldSPFinalConcurrenceWindowExpiration notification |
| ~~lnpLogOperational-InformationRecord~~ | ~~Object used to log information from a  lnpNPAC-SMS-Operational-Information notification.~~ |
| lnpLogRangeAttributeValueChangeRecord | Object used to log information from a lnpLogRangeAttributeValueChange notification. |

[snip]

**Section 4.1.4** Notification Interface Functionality, Exhibit 11:

[snip]

|  |  |
| --- | --- |
| ~~lnpNPAC-SMS-Operational-Information~~ | ~~This notification is used to support the reporting of NPAC SMS scheduled down time. This notification can be issued from the lnpNPAC- SMS object on the NPAC SMS to a SOA via the SOA to NPAC SMS interface or from the NPAC SMS to the Local SMS via the NPAC SMS to Local SMS interface.~~ |
| numberPoolBlockStatusAttributeValueChange | This notification is issued when the number pool block status is modified and can contain the number pool block status and failed service provider list. This notification is issued over the NPAC SMS to SOA interface from the numberPoolBlockNPAC object. |

[snip]

Remove Reference to LSMS Filter NPA-NXX Create.

Remove Reference to LSMS Filter NPA-NXX Delete.

Remove Reference to LSMS Filter NPA-NXX Query.

**Section 4.1.1** Primary NPAC Mechanized Interface Operations, Exhibit 8

[snip]

|  |  |  |  |
| --- | --- | --- | --- |
| Final Request for Version Create | to SOA (old service provider) | M-EVENT-REPORT: subscriptionVersionOldSPFinalConcurrenceWindowExpiration or subscriptionVersionRangeOldSPFinalConcurrenceWindowExpiration | subscriptionVersionNPAC  or  lnpSubscriptions |
| ~~LSMS Filter NPA-NXX Create~~ | ~~from LOCAL SMS~~  ~~or~~  ~~from SOA~~ | ~~M-CREATE~~ | ~~lsmsFilterNPA-NXX~~ |
| ~~LSMS Filter NPA-NXX Delete~~ | ~~from LOCAL SMS~~  ~~or~~  ~~from SOA~~ | ~~M-DELETE~~ | ~~lsmsFilterNPA-NXX~~ |
| ~~LSMS Filter NPA-NXX Query~~ | ~~from LOCAL SMS~~  ~~or~~  ~~from SOA~~ | ~~M-GET~~ | ~~lsmsFilterNPA-NXX~~ |
| Network Data Download | from LOCAL SMS  or  from SOA | M-ACTION: lnpDownload  or  M-GET: scoped and filtered for intended serviceProvLRN, serviceProvNPA-NXX serviceProvNPA-NXX-X, service provider attributes | lnpNetwork1 |

[snip]

Section 4.1.2 Managed Object Interface Functionality, Exhibit 9:

[snip]

|  |  |
| --- | --- |
| lnpSubscriptions | Container object used to contain all subscription versions and number pool blocks on the NPAC SMS and the Local SMS. It is used in the NPAC SMS to Local SMS and SOA to NPAC SMS interfaces to support query of subscription and number pool block data on the NPAC SMS and downloading of subscription and number pool block data to the Local SMS. |
| ~~lsmsFilterNPA-NXX~~ | ~~Object used to represent the NPA-NXX values for which a service provider does not want to be informed of subscription version broadcasts.~~ |
| numberPoolBlock | Object used to represent a number pool block on the Local SMS. These objects are used to support number pool block download from the NPAC SMS to the Local SMS using the NPAC SMS to Local SMS interface. |

[snip]

Section 5.2.1.8 Assocication Functions, Exhibit 135

[snip]

| **Service Provider and Network Data Management**  **Classes:**  **lnpNetwork**  **lnpNPAC-SMS**  **lnpServiceProvs**  **~~lsmsFilterNPA-NXX~~**  **serviceProv**  **serviceProvLRN**  **serviceProvNetwork**  **serviceProv-NPA-NXX**  **serviceProvNPA-NXX-X** | 0x02 | 0x04 |
| --- | --- | --- |

[snip]

**EFD:**

Delete Flow B.8.1, Local SMS Notification of Scheduled NPAC Downtime.

~~This scenario shows SOA/Local SMS notification of scheduled NPAC downtime.~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by NPAC SMS personnel to schedule downtime for the NPAC SMS system~~

1. ~~The NPAC SMS sends an lnpNPAC-SMS-Operational-Information M-EVENT-REPORT to the Local SMSs.~~
2. ~~The Local SMSs respond by sending an lnpNPAC-SMS-Operational-Information M-EVENT-REPORT confirmation back to the NPAC SMS.~~
3. ~~The NPAC SMS sends an lnpNPAC-SMS-Operational-Information M-EVENT-REPORT to all SOAs.~~
4. ~~The SOA(s) respond by sending an lnpNPAC-SMS-Operational-Information M-EVENT-REPORT confirmation back to the NPAC SMS.~~

Delete Flows in B.6, LSMS Filter NPA-NXX Scenarios (SOA/LSMS Create, Delete, and Query their own NPA-NXX Filters).

B.6 LSMS Filter NPA-NXX Scenarios

NPA-NXX filter management can only be performed by NPAC Personnel on behalf of Service Providers. Creation, deletion, and querying of filters via the SOA or LSMS interface is not supported (NANC 454).

~~B.6.1 lsmsFilterNPA-NXX Creation by the Local SMS~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the Local SMS personnel to create an lsmsFilterNPA-NXX object.~~

1. ~~The Local SMS sends the M-CREATE request to the NPAC for the lsmsFilterNPA-NXX object to be created.~~
2. ~~The NPAC SMS attempts to create the object. If successful, the M-CREATE response is returned. Otherwise, an error is returned.~~

~~B.6.2 lsmsFilterNPA-NXX Deletion by the Local SMS~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the Local SMS personnel to delete an lsmsFilterNPA-NXX object.~~

1. ~~The Local SMS sends the M-DELETE request to the NPAC for the lsmsFilterNPA-NXX object to be removed.~~
2. ~~The NPAC SMS attempts to delete the object. If successful, the M-DELETE response is returned. Otherwise, an error is returned.~~

~~B.6.3 lsmsFilterNPA-NXX Query by the Local SMS~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the Local SMS personnel to query for one or all lsmsFilterNPA-NXX object(s).~~

1. ~~The Local SMS sends the M-GET request to the NPAC for the lsmsFilterNPA-NXX object(s).~~
2. ~~If the Service Provider ID was specified, all lsmsFilterNPA-NXX objects for that Service Provider are returned. If only one object was requested, that object is returned.~~

~~B.6.4 lsmsFilterNPA-NXX Creation by the SOA~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the SOA personnel to create an lsmsFilterNPA-NXX object.~~

1. ~~The SOA sends the M-CREATE request to the NPAC for the lsmsFilterNPA-NXX object to be created.~~
2. ~~The NPAC SMS attempts to create the object. If successful, the M-CREATE response is returned. Otherwise, an error is returned.~~

~~B.6.5 lsmsFilterNPA-NXX Deletion by the SOA~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the SOA personnel to delete an lsmsFilterNPA-NXX object.~~

1. ~~The SOA sends the M-DELETE request to the NPAC for the lsmsFilterNPA-NXX object to be removed.~~
2. ~~The NPAC SMS attempts to delete the object. If successful, the M-DELETE response is returned. Otherwise , an error is returned.~~

~~B.6.6 lsmsFilterNPA-NXX Query by the Local SMS SOA?~~

~~This flow is not available over the XML interface.~~

DELETE the figure below depicting the flow.



~~Action is taken by the SOA personnel to query for one or all lsmsFilterNPA-NXX object(s).~~

1. ~~The SOA sends the M-GET request to the NPAC for the lsmsFilterNPA-NXX object(s).~~
2. ~~If the Service Provider ID was specified, all lsmsFilterNPA-NXX objects for that Service Provider are returned. If only one object was requested, that object is returned.~~

XIS:

No Change Required.

GDMO:

Modify the behavior of the lsmsFilterNPA-NXX object to indicate it can not be managed via the SOA or LSMS interface.

[snip]

-- 25.0 LNP Service Provider Filter NPA-NXX Managed Object Class

lsmsFilterNPA-NXX MANAGED OBJECT CLASS

DERIVED FROM "CCITT Rec. X.721 (1992) | ISO/IEC 10165-2 : 1992":top;

CHARACTERIZED BY

lsmsFilterNPA-NXX-Pkg;

REGISTERED AS {LNP-OIDS.lnp-objectClass 25};

lsmsFilterNPA-NXX-Pkg PACKAGE

BEHAVIOUR

lsmsFilterNPA-NXX-Definition,

lsmsFilterNPA-NXX-Behavior;

ATTRIBUTES

lsmsFilterNPA-NXX-ID GET,

lsmsFilterNPA-NXX-Value GET;

;

lsmsFilterNPA-NXX-Definition BEHAVIOUR

DEFINED AS !

The lsmsFilterNPA-NXX class is the managed object

used to identify the NPA-NXX values for which a service provider

does not want to be informed of subscription version broadcasts, NPA-NXX broadcasts, NPA-NXX-X broadcasts, Number Pool Block

broadcasts, or SOA notifications.

!;

lsmsFilterNPA-NXX-Behavior BEHAVIOUR

DEFINED AS !

The NPAC SMS maintains NPA-NXX filters internally. They cannot be created, deleted, nor queried over the Local SMS or SOA interface. They are not broadcast over the Local SMS or SOA interface. If a SOA or LSMS

sends an M-CREATE, M-DELETE, or M-GET request to the NPAC SMS, the NPAC SMS will return an empty response and will not act on the request.

The NPAC SMS maintains NPA-level filters internally. Even though they

filter all subordinate NPA-NXXs, NPA-level filters are not broadcast

over the Local SMS or SOA interface.

!;

[snip]

ASN.1:

No Changes Required.

XML:

No Change Required.