**Origination Date:** 8/22/17

**Originator:** iconectiv

### Change Order Number: NANC 511

**Description:** LSMS SV Query Response RDN

**Functional Backwards Compatible:** Yes

**IMPACT/CHANGE ASSESSMENT**

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

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

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

**Business Need**

Some LSMS systems do not return any Managed Object Instance information or return incorrect Managed Object Instance data in M-GET (query) responses sent to the NPAC as part of audit processing. Additionally, some LSMS systems return incorrect Managed Object Class data in M-GET (query) responses containing subscription version or number pool block data. Relaxing the NPAC validations and modifying the processing in NPAC in order to allow incorrect/missing Managed Object Instance and incorrect Managed Object Class information would allow these local systems to remain unmodified while supporting general NPAC audit processing. Also see PIM 99.

**Description of Change:**

Changes detailed below.

IIS:

New Section: 4.10 LSMS Responses to Queries Initiated by NPAC SMS

During audit processing, the NPAC SMS queries Local SMS systems to retrieve Subscription Version (subscriptionVersion) and Number Pool Block (numberPoolBlock) object instances. As described in Section 4.2, the NPAC SMS sends scoped and filtered M-GET requests to the Local SMS system with a base managed object of lnpSubscriptions and a scope of 1, indicating a scope of the first level under the base managed object. ITU-T X.710 specifications for M-GET responses indicate that both the managed object class and managed object instance must be provided if the managed object is not the base object alone, which would be the case if the Local SMS returns any subscriptionVersion or numberPoolBock objects. However, the NPAC SMS will support a variation from the ITU-T X.710 specification in this regard and allow for the managed object instance to be unspecified or specified with a managed object instance containing an identifier other than that of a subscriptionVersion or numberPoolBlock. The NPAC SMS will also allow for the managed object class to be lnpSubscriptions when Subscription Version or Number Pool Block is returned, in addition to the expected managed object classes of subscriptionVersion and numberPoolBlock. This variation from the ITU-T X.710 specification is supported in addition to the standard managed object instance defined in the specification.

GDMO:

GDMO Behavior (changed text in yellow highlights)

-- 20.0 LNP subscription Version Managed Object Class

subscriptionVersion MANAGED OBJECT CLASS

[snip]

subscriptionVersionBehavior BEHAVIOUR

DEFINED AS !

Local SMS Managed Object used for the NPAC SMS to Local SMS

Interface.

[snip]

Filtering Support for M-GET:

TN Query with greaterOrEqual and lessOrEqual, and equality must be

supported for auditing. The fields used with greaterOrEqual and

lessOrEqual filters are subscriptionTN and

subscriptionActivationTimeStamp. The field used with equality is

subscriptionTN. Filters supported contain either a greaterOrEqual and

lessOrEqual filter, or equality filter, for subscriptionTN only or a

more complex filter. The more complex filter uses two criteria for

filtering. The first criteria used is greaterOrEqual and lessOrEqual

filters with subscriptionTN. The second criteria uses greaterOrEqual

and lessOrEqual filters for subscriptionActivationTimeStamp. Both

criteria must be matched for the data being queried (logical and).

For responses to M-GET requests, ITU-T X.710 indicates that the managed object class and managed object instance must be supplied if the Local SMS returns a subscriptionVersion object. The NPAC SMS will also support receiving responses that contain either no managed object instance or a managed object instance that does not identify a subscriptionVersion object when subscriptionVersion data is returned. The NPAC SMS will also support an M-GET response containing a managed object class of lnpSubscriptions, in addition to the preferred subscriptionVersion object class.

[snip]

-- 29.0 Number Pool Block Data Managed Object Class

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numberPoolBlock MANAGED OBJECT CLASS

[snip]

numberPoolBlock-Behavior BEHAVIOUR

DEFINED AS !

[snip]

Filtering Support for M-GET:

Number Pool Block Query with greaterOrEqual and lessOrEqual, and

equality for EDR support. The fields used with greaterOrEqual and

lessOrEqual filters are numberPoolBlockNPA-NXX-X and

numberPoolBlockActivationTimeStamp. The field used with equality is

numberPoolBlockNPA-NXX-X. Filters supported contain either a

greaterOrEqual and lessOrEqual filter, or equality filter, for

numberPoolBlockNPA-NXX-X only or a more complex filter. The more

complex filter uses two criteria for filtering. The first criteria used

is equality filter with numberPoolBlockNPA-NXX-X. The second criteria

uses greaterOrEqual and lessOrEqual filters for

numberPoolBlockActivationTimeStamp. Both criteria must be matched for

the data being queried (logical and). The scope for the filters is

level 1 only with a base managed object class of lnpSubscriptions.

For responses to M-GET requests, ITU-T X.710 indicates that the managed object class and managed object instance must be supplied if the Local SMS returns a numberPoolBlock object. The NPAC SMS will also support receiving responses that contain either no managed object instance or a managed object instance that does not identify a numberPoolBlock object when numberPoolBlock data is returned. The NPAC SMS will also support an M-GET response containing a managed object class of lnpSubscriptions, in addition to the preferred numberPoolBlock object class.

[snip]

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