**Origination Date:** 09/07/2019

**Originator:** iconectiv

### Change Order Number: NANC 546

**Description:** XIS – Doc-only Changes

**Functional Backwards Compatible:** Yes

**IMPACT/CHANGE ASSESSMENT**

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

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

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

**Business Need**

Documentation update.

**Description of Change:**

Changes detailed below.

XIS:

In Section 2.6, the iconectiv NPAC always retries sending messages if the synchronous acknowledgement is not successfully confirmed, including all synchronous errors returned. Make the following changes to this in Section 2.6.

## 2.6 Recovery of Failed or Missed Messages

In the event that a service provider SOA or LSMS system is unavailable to respond or fails a message sent from the NPAC, the NPAC will continuously retry sending the message until successful delivery is achieved. In order to preserve message ordering, other messages queued to the SOA or LSMS system will be held waiting for successful delivery of the failed message. There are four different types of failures that can be encountered when initiating a message from the NPAC to a provider’s SOA or LSMS:

1. The NPAC fails in attempting to establish a connection to the HTTPS server provided by the SOA or LSMS system, or fails to receive a synchronous acknowledgement before the connection times out.
2. The NPAC is able to establish a connection to the SOA or LSMS system HTTPS server, but a synchronous acknowledgement message is returned with a failure status.
3. The NPAC is able to establish a connection with the SOA or LSMS system HTTPS server and a successful synchronous acknowledgement is received, but no asynchronous reply is received before the established reply timeout period.
4. The NPAC is able to establish a connection with the SOA or LSMS system HTTPS server and a successful synchronous acknowledgement is received, however, the asynchronous reply to the message indicates an error.

In cases 1, 2, and 3 the default behavior of the NPAC system will be to continuously retry the message until successful. For case 4, subscription versions and pooled blocks will be automatically re-transmitted in the next housekeeping resend. For network data download and notifications, provider systems are responsible for either querying the NPAC or requesting a BDD.

~~It is also important to note that in cases 1 and 2, the NPAC will repeatedly resend the same message until it can be delivered and a successful synchronous acknowledgement message is returned. In cases where the local system can determine that the failure is due to a temporary condition that affects all messages (e.g. a database issue), the default behavior of allowing the NPAC to continuously retry the current message is desirable. In cases where the failure is message specific (e.g. a software error is preventing the parsing of that particular message), it may be desirable to respond with an access\_denied error to allow other messages to flow to the local system.~~

The NPAC will have the capability to turn off the continuous retries for any specific message or all queued messages for a SPID. When this is done, the SOA or LSMS system must take corrective action (a BDD, query, or audit) to recover what has been missed.

In the Npb Modify Download message in Section 5.8.18 of the XIS, the sp\_id attribute (which identifies the Block Holder SPID) is identified as a required attribute, but the XSD identifies this attribute as Optional for the Npb Modify Download message. Modify the definition of this attribute in the XIS to be “Optional” to match the XSDs.

### 5.8.18 NpbModifyDownload

The NpbModifyDownload message is sent from the NPAC to a LSMS to indicate a pooled block has been modified at the NPAC.

#### NpbModifyDownload Parameters

| Parameter | Description |
| --- | --- |
| block\_id | Required - the unique numeric identifier of the modified number pool block |
| block\_dash\_x | Required - the NPA-NXX-X value of the modified number pool block |
| sp\_id | ~~Required~~ Optional - the SPID that owns the modified number pool block (block holder) Note: The Block Holder SPID will appear in the NpbModifyDownload message except for a download associated with an audit discrepancy when the LSMS Block Holder SPID is different than the NPAC SMS Block Holder SPID – the sp\_id parameter will not be populated. |
| svb\_activation\_timestamp | Optional - the timestamp of when the modified number pool block was activated |

[snip]

XSD: the Number Pool Block Modify Data structure shows that the Service Provider ID is optional.

[snip]

<xs:complexType name="NumberPoolBlockModifyData">

<xs:sequence>

<xs:element name="block\_id" type="BlockId"/>

<xs:element name="block\_dash\_x" type="NpaNxxX"/>

<xs:element name="sp\_id" type="ServiceProvId" minOccurs="0"/>

<xs:element name="svb\_activation\_timestamp" type="xs:dateTime" minOccurs="0"/>

[snip]

In The SV Query Reply message parameters defined in **Section 5.6.49.1** for NPAC to SOA messages as well as in **Section 5.8.30.1** for NPAC to LSMS messages, the sv\_cancellation\_timestamp is defined twice – remove the second occurrence of this parameter.

SvQueryReply Parameters

| Parameter | Description |
| --- | --- |
| basic\_code | This required attribute will always be populated in this message. basic\_code indicates the high level success or failure, and is described in detail in the “Error Handling” section. |
| status\_code | status\_code is an optional field that specifies the error number. |
| status\_info | status\_info is an optional field that describes the error info. |
| sv\_list | This field is a list of sv\_data objects that describe the SVs returned by the query |
| sv\_id | This required field is the unique identifier for this SV |
| sv\_tn | This required field is the telephone number of this SV |

[snip]

|  |  |
| --- | --- |
| sv\_disconnect\_complete\_timestamp | This optional field is the timestamp that the disconnect of this SV was completed. |
| sv\_cancellation\_timestamp | This optional field is the timestamp that the cancellation of this SV was completed. |
| sv\_creation\_timestamp | This optional field is the timestamp that the SV was created. |
| ~~sv\_cancellation\_timestamp~~ | ~~This optional field is the timestamp that the cancellation of this SV was completed.~~ |
| svb\_failed\_sp\_list | This optional field specifies (possibly multiple) spid/name pairs of LSMSs that may not have the latest information for this SV |

[snip]