**Origination Date:** 03/10/16

**Originator:** 10x People

### Change Order Number: NANC 484

**Description:** XML – Removal of Optional Data values

**Functional Backwards Compatible:** No

**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 | Y | N | N | N |

**Business Need**

The current XML schema definition of the Optional Data attribute on subscription version and number pool block modify operations incorrectly indicate the values can be removed in their entirety. Since the Optional Data attribute could contain multiple parameters (with values), the XML schema should be changed to prevent a mistake where all of the values in all of the parameters are removed, when only one or more are meant to removed. As such, the current behavior requires that each parameter within the Optional Data attribute be individually identified for modification, including a modification where the existing value is being removed.

**Description of Change:**

Update XIS. Update XML schema.

XIS:

##  NPAC Rules for Handling of Optional Data Fields

Information is provided on how the NPAC handles the XML string as well as how providers system should deal with Activate and Modify downloads that contain the XML structure svb\_optional\_data. Disconnects are not covered here because they don’t contain the XML svb\_optional\_data structure. If a SOA request contains multiple optional data fields with the same field name, the first of the duplicates will be used.

* Activate – The svb\_optional\_data structure contains only those fields supported by the provider and specified in the create request.
	+ Provider systems should store the fields specified in the message.
* Modify - The svb\_optional\_data structure contains only those fields supported by the provider and that were modified in the modify request.
	+ If the modify removed a value from an optional field, it is included in the svb\_optional\_data structure with an od\_value of nil.
	+ Provider systems should modify only the fields specified in the message. Any other optional fields should be retained.
* Downloads resulting from an Audit - The svb\_optional\_data structure is included only for fields supported by the provider.
	+ Only the optional data fields supported by an LSMS are audited.
	+ Only the optional data fields supported by the auditing SOA are returned to the SOA in the discrepancy notifications
	+ For Modify downloads that result from an Audit:
		- The svb\_optional\_data contains all fields supported by the provider, regardless of whether or not that individual field was discrepant, and regardless of whether or not the NPAC’s subscription version has values for those fields.
		- Fields not supported by the provider are omitted even if they were returned in the Audit query reply from the LSMS.
		- Fields supported by the provider but not present in the NPAC’s subscription version are included with a od\_value of nil.
	+ Provider systems should store the fields as specified above for Activate or Modify downloads.
* Notifications –
	+ For a create notification (Number Pool Block only), the svb\_optional\_data structure contains only fields supported by the provider and specified in the create request.
	+ For an AVC the svb\_optional\_data structure contains only those fields supported by the provider that were modified. If a supported field is removed, it is included in the structure with a od\_value of nil.
* BDD - Each field supported by the provider has a position in the BDD record.
	+ For fields supported by the provider but not present in the NPAC’s subscription version, the field is included in the string with an empty value (two adjacent pipe characters).
	+ For fields not supported by the provider, no field placeholder is included in the string (no adjacent pipe characters).
	+ Provider systems should replace all fields with those in the BDD.
* Field Removal – Provider modify requests that remove optional data fields using the svb\_optional\_data structure from Number Pool Blocks or Subscription Versions:
	+ Each optional data field must be removed individually using the svb\_optional\_data structure with an od\_value specified as nil.
	+ Removal of the entire svb\_optional\_data field using nil is not supported.

XSD:

<xs:complexType name="NumberPoolBlockModifyRequestData">

<xs:sequence>

 <xs:choice>

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

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

 </xs:choice>

 <xs:element name="svb\_lrn" type="Lrn" minOccurs="0"/>

 <xs:element name="svb\_class\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_class\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_sv\_type" type="SVType" minOccurs="0"/>

 <xs:element name="svb\_optional\_data" type="OptionalData" ~~nillable="true"~~ minOccurs="0"/>

 </xs:sequence>

</xs:complexType>

<xs:complexType name="SvModifyPendingNewData">

 <xs:sequence>

 <xs:element name="svb\_lrn" type="Lrn" minOccurs="0"/>

 <xs:element name="svb\_new\_sp\_due\_date" type="xs:dateTime" minOccurs="0"/>

 <xs:element name="svb\_class\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_class\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_end\_user\_location\_value" type="EndUserLocationValue" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_end\_user\_location\_type" type="EndUserLocationType" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_billing\_id" type="BillingId" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="sv\_customer\_disconnect\_date" type="xs:dateTime" minOccurs="0"/>

 <xs:element name="sv\_effective\_release\_date" type="xs:dateTime" minOccurs="0"/>

 <xs:element name="svb\_sv\_type" type="SVType" minOccurs="0"/>

 <xs:element name="svb\_optional\_data" type="OptionalData" ~~nillable="true"~~ minOccurs="0"/>

 <xs:element name="sv\_new\_sp\_medium\_timer\_indicator" type="xs:boolean" minOccurs="0"/>

 </xs:sequence>

</xs:complexType>

<xs:complexType name="SvModifyActiveNewData">

 <xs:sequence>

 <xs:element name="svb\_lrn" type="Lrn" minOccurs="0"/>

 <xs:element name="svb\_class\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_class\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_lidb\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_isvm\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_cnam\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_end\_user\_location\_value" type="EndUserLocationValue" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_end\_user\_location\_type" type="EndUserLocationType" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_billing\_id" type="BillingId" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_dpc" type="Dpc" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_wsmsc\_ssn" type="Ssn" nillable="true" minOccurs="0"/>

 <xs:element name="svb\_sv\_type" type="SVType" minOccurs="0"/>

 <xs:element name="svb\_optional\_data" type="OptionalData" ~~nillable="true"~~ minOccurs="0"/>

 </xs:sequence>

</xs:complexType>

[<xs:complexType name="NumberPoolBlockCreateInvalidData">](file:///C%3A%5CASMS%5CNPAC%5CFRS_IIS%5CNANC%20372%20-%20XML%20interface%5CLatest%20Version%5CNPAC_XML_Schema_v1.6l.xsd)

[<xs:choice>](file:///C%3A%5CASMS%5CNPAC%5CFRS_IIS%5CNANC%20372%20-%20XML%20interface%5CLatest%20Version%5CNPAC_XML_Schema_v1.6l.xsd)

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

<xs:element name="svb\_lrn" type="Lrn" nillable="true"/>

<xs:element name="svb\_class\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_class\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_lidb\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_lidb\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_isvm\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_isvm\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_cnam\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_cnam\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_wsmsc\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_wsmsc\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_sv\_type" type="SVType" nillable="true"/>

<xs:element name="svb\_optional\_data" type="OptionalData"/>

</xs:choice>

</xs:complexType>

[<xs:complexType name="NumberPoolBlockModifyInvalidData">](file:///C%3A%5CASMS%5CNPAC%5CFRS_IIS%5CNANC%20372%20-%20XML%20interface%5CLatest%20Version%5CNPAC_XML_Schema_v1.6l.xsd)

[<xs:choice>](file:///C%3A%5CASMS%5CNPAC%5CFRS_IIS%5CNANC%20372%20-%20XML%20interface%5CLatest%20Version%5CNPAC_XML_Schema_v1.6l.xsd)

<xs:element name="svb\_lrn" type="Lrn" nillable="true"/>

<xs:element name="svb\_class\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_class\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_lidb\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_lidb\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_isvm\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_isvm\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_cnam\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_cnam\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_wsmsc\_dpc" type="Dpc" nillable="true"/>

<xs:element name="svb\_wsmsc\_ssn" type="Ssn" nillable="true"/>

<xs:element name="svb\_sv\_type" type="SVType" nillable="true"/>

<xs:element name="svb\_optional\_data" type="OptionalData"/>

</xs:choice>

</xs:complexType>