Change Order Form

**Origination Date** (mm/dd/yyyy): 09/13/2023

**Originator(s)**: 10X People, iconectiv

**Contact Name(s)**: John Nakamura, Matt Timmermann

**Contact Number(s)**: 303-620-6684, 732-699-3488

**Email Address(s):** [jnakamura@10xpeople.com](mailto:jnakamura@10xpeople.com), [mtimmermann@iconectiv.com](mailto:mtimmermann@iconectiv.com)

**(NOTE: Originator(s) to complete this section of the form along with Sections 1, 2 and 3)**

1. **CO Name/Description: Add SV Concurrence to SV Query Reply**

**Functional Backwards Compatible:** Yes

**IMPACT/CHANGE ASSESSMENT**

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

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

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

1. **Business Need:**

If SOA notifications related to an SV object are missed, such the SV Object Create Notification and the Old Service Provider Final Concurrence Timer Expiration Notification, the SOA may not be able to determine whether the Final Concurrence (T2) Timer has expired and default concurrence has been achieved. The notifications may be missed primarily and inadvertently because of notification suppression. In addition, the SV Query Reply returned by NPAC in response to an SV Query Request sent by the SOA currently does not contain information about whether or not the concurrence (T2) timer has expired. See also PIM 151.

1. **Description of Change:**

This change order introduces a new field (Boolean) to the SV Query Reply indicating, for an inter-Service Provider (LSPP) port, that either:

1. the Final Concurrence Window (T2 timer) for an SV has expired

OR

1. the Old Service Provider has explicitly concurred with a port, i.e., the Old SP Authorization on the Subscription Version was set by the Old SP as true.

The value of the field on the SV Query Reply will be set as follows:

* If T2 timer has expired or the Old SP has concurred with the port, the value will be TRUE.
* If T2 has not yet expired and the Old SP has not concurred, the value will be FALSE.

This feature is applicable to the SOA XML interface, and does not apply to the LSMS XML interface and SOA/LSMS CMIP interfaces.

To allow all SOAs to maintain backwards compatibility, and only affect SOAs that choose to implement this new feature, this change order adds a new SPIDable, NPAC Customer XML SOA SV Concurrence Indicator, Boolean, to indicate whether or not the Service Provider’s XML SOA supports receiving the SV Concurrence field. If an XML SOA does not support this new feature, then the new field will not appear in the SV Query Reply.

**FRS:**

**Section 3.1, NPAC SMS Data Models**

Add SP tunable as shown below:

| **NPAC CUSTOMER DATA MODEL** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Attribute Name** | | **Type (Size)** | | **Required** | | **Description** | |
| [snip] | |  | |  | |  | |
| NPAC Customer XML SOA SV Concurrence Indicator | | B | | √ | | A Boolean that indicates whether the NPAC Customer supports the SV Concurrence field in an SV Query Reply to the XML SOA.  The default value is False. |
| [snip] | |  | |  | |  | |

Table 3-2 NPAC Customer Data Model

**Section 4.1.2.1, Service Provider Data Creation**

[snip]

R4‑8 Service Provider Data Elements

[snip]

82. NPAC Customer XML SOA SV Concurrence Indicator (reference CO TBD)

[snip]

**Section 5.1.3, Subscription Queries**

[snip]

**Section 5.1.3.2, System Functionality**

[snip]

Req 1 Service Provider XML SOA SV Concurrence Indicator

NPAC SMS shall provide a Service Provider XML SOA SV Concurrence Indicator tunable parameter which defines whether an XML SOA supports the SV Concurrence field in an SV Query Reply. (previously CO TBD, Req 1)

Req 2 Service Provider XML SOA SV Concurrence Indicator Default

NPAC SMS shall default the Service Provider XML SOA SV Concurrence Indicator tunable parameter to FALSE. (previously CO TBD, Req 2)

Req 3 Service Provider XML SOA SV Concurrence Indicator Modification

NPAC SMS shall allow NPAC Personnel, via the NPAC Administrative Interface, to modify the Service Provider XML SOA SV Concurrence Indicator tunable parameter. (previously CO TBD, Req 3)

Req 4 Query Subscription Version - Determine SV Concurrence Value

NPAC SMS shall determine the value for SV Concurrence in the query response to a Subscription Version query request initiated over the SOA-to-NPAC SMS interface (XML only), if all the following are true:

* The Service Provider XML SOA SV Concurrence Indicator tunable parameter is TRUE.
* The Local Number Portability Type of the Subscription Versions is LSPP (0).
* The Subscription Version Status is Pending (2).

If all the above are true, the value of SV Concurrence in the query response shall be:

* TRUE if the Final Concurrence Window (T2 timer) for a Subscription Version has expired or the Old SP has explicitly concurred with the port.
* FALSE if the Final Concurrence Window (T2 timer) for a Subscription Version has not yet expired and the Old SP has not concurred with the port.

(previously CO TBD, Req 4)

R5-74.3 Query Subscription Version - Output Data - SOA

NPAC SMS shall return the following output data for a Subscription Version query request initiated by NPAC personnel or a SOA-to-NPAC SMS interface user: (reference NANC 399)

1. Subscription Version ID
2. Subscription Version Status
3. Local Number Portability Type
4. Ported Telephone Number
5. Old facilities‑based Service Provider Due Date
6. New facilities‑based Service Provider Due Date
7. New facilities‑based Service Provider ID
8. Old facilities‑based Service Provider ID
9. Authorization from old facilities‑based Service Provider
10. Status Change Cause Code
11. Location Routing Number (LRN)
12. Class DPC
13. Class SSN
14. LIDB DPC
15. LIDB SSN
16. CNAM DPC
17. CNAM SSN
18. ISVM DPC
19. ISVM SSN
20. WSMSC DPC (for SOAs that support WSMSC data)
21. WSMSC SSN (for SOAs that support WSMSC data)
22. Billing Service Provider ID
23. End‑User Location Value
24. End User Location Type
25. Customer Disconnect Date
26. Effective Release Date
27. Disconnect Complete Time Stamp
28. Conflict Time Stamp
29. Broadcast Time Stamp
30. Activation Time Stamp
31. Cancellation Time Stamp (Status Modified to Canceled Time Stamp)
32. New Service Provider Creation Time Stamp
33. Old Service Provider Authorization Time Stamp
34. Pre-cancellation Status
35. Old Service Provider Cancellation Time Stamp
36. New Service Provider Cancellation Time Stamp
37. Old Time Stamp (Status Modified to Old Time Stamp)
38. New Service Provider Conflict Resolution Time Stamp
39. Old Service Provider Conflict Resolution Time Stamp
40. Create Time Stamp
41. Modified Time Stamp
42. Porting to Original
43. Download Reason
44. Timer Type (for SOAs that support Timer Type)
45. Business Hours Type (for SOAs that support Business Hours)
46. List of all Local SMSs that failed activation, modification, or disconnect.
47. SV Type (if supported by the Service Provider SOA)
48. Alternative SPID (if supported by the Service Provider SOA)
49. Last Alternative SPID (if supported by the Service Provider SOA)
50. Alt-End User Location Value (if supported by the Service Provider SOA)
51. Alt-End User Location Type (if supported by the Service Provider SOA)
52. Alt-Billing ID (if supported by the Service Provider SOA)
53. Voice URI (if supported by the Service Provider SOA)
54. MMS URI (if supported by the Service Provider SOA)
55. SMS URI (if supported by the Service Provider SOA)
56. New SP Medium Timer Indicator (if supported by the Service Provider SOA)
57. Old SP Medium Timer Indicator (if supported by the Service Provider SOA)
58. SV Concurrence (if supported by the Service Provider SOA, XML only) (CO TBD)
59. Activity Time Stamp (XML only)

Note: If the New SP Medium Timer Indicator value or Old SP Medium Timer Indicator value is not set on the Subscription Version, then it will not be returned in the query response.

Note: The SV Concurrence will only be returned in the query response if the conditions in requirement Req 4 are met.

[snip]

**EFD (IIS APPENDICES A AND B):**

**B.5.6 SubscriptionVersion Query**

[snip]

The query return data includes:  
  
subscriptionVersionId (SOA, LSMS)  
subscriptionTN (SOA, LSMS)  
[snip]  
SVConcurrence – if supported by the Service Provider XML SOA (not returned for query by Service Provider CMIP SOA or Service Provider CMIP/XML LSMS)  
[snip]

Note: If the New SP Medium Timer Indicator value or Old SP Medium Timer Indicator value is not set on the Subscription Version, then it will not be returned in the query response.

Note: The SV Concurrence will only be returned in the query response for pending inter-provider ports.

[snip]

1. **GDMO:**

No Change Needed.

1. **ASN.1:**

No Change Needed.

1. **XIS:**

For the XIS, note that changes are made to Section 5.6 for NPAC to SOA messages, while no change is made to Section 5.7 for NPAC to LSMS messages.

**Section 5.6.49.1, SvQueryReply Parameters**

| Parameter | Description |
| --- | --- |
| [snip] |  | |
| sv\_old\_sp\_medium\_timer\_indicator | This optional field is set to true if the old SP indicated medium timers for this SV. | |
| sv\_concurrence | This optional field is set to true for a pending inter-provider SV if either of the following is true:   * The Final Concurrence Timer (T2) expired because the old SP did not send an Old SP Create request for this SV to the NPAC. * The old SP explicitly concurred with the port. |
| activity\_timestamp | This required field specifies the timestamp of when the NPAC last created a notification or download for this SV. |
| [snip] |  |

**Section 5.6.49.2, SvQueryReply XML Example**

<?xml version="1.0" encoding="UTF-8" standalone="no"?>

<SOAMessages xmlns="urn:lnp:npac:1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<MessageHeader>

<schema\_version>1.1</schema\_version>

<sp\_id>1111</sp\_id>

<sp\_key>zyxwvuts</sp\_key>

<npac\_region>midwest\_region</npac\_region>

<departure\_timestamp>2012-12-17T09:30:47.244Z</departure\_timestamp>

</MessageHeader>

<MessageContent>

<npac\_to\_soa>

<Message>

<invoke\_id>261</invoke\_id>  
<origination\_timestamp>2012-12-17T09:30:46.284Z </origination\_timestamp>

<SvQueryReply>

<reply\_status>

<basic\_code>success</basic\_code>

</reply\_status>

<sv\_list>

<sv\_data>

<sv\_id>1000</sv\_id>

<sv\_tn>5512341234</sv\_tn>

<svb\_lrn>1234567890</svb\_lrn>

<svb\_new\_sp>1111</svb\_new\_sp>

<svb\_activation\_timestamp>2001-12-17T09:30:47Z

</svb\_activation\_timestamp>

<svb\_class\_dpc>111222111</svb\_class\_dpc>

<svb\_class\_ssn>0</svb\_class\_ssn>

<svb\_lidb\_dpc>111222111</svb\_lidb\_dpc>

<svb\_lidb\_ssn>0</svb\_lidb\_ssn>

<svb\_isvm\_dpc>111222111</svb\_isvm\_dpc>

<svb\_isvm\_ssn>0</svb\_isvm\_ssn>

<svb\_cnam\_dpc>111222111</svb\_cnam\_dpc>

<svb\_cnam\_ssn>0</svb\_cnam\_ssn>

<svb\_end\_user\_location\_value>1</svb\_end\_user\_location\_value>

<svb\_end\_user\_location\_type>12</svb\_end\_user\_location\_type>

<svb\_billing\_id>3333</svb\_billing\_id>

<sv\_lnp\_type>inter\_provider</sv\_lnp\_type>

<download\_reason>dr\_new</download\_reason>

<svb\_wsmsc\_dpc>111222111</svb\_wsmsc\_dpc>

<svb\_wsmsc\_ssn>0</svb\_wsmsc\_ssn>

<sv\_status>status\_active</sv\_status>

<sv\_old\_sp>2222</sv\_old\_sp>

<svb\_new\_sp\_due\_date>2001-12-17T09:30:47Z

</svb\_new\_sp\_due\_date>

<svb\_new\_sp\_creation\_ts>2001-12-17T09:30:47Z

</svb\_new\_sp\_creation\_ts>

<sv\_old\_sp\_due\_date>2001-12-17T09:30:47Z

</sv\_old\_sp\_due\_date>

<sv\_old\_sp\_authorization>1</sv\_old\_sp\_authorization>

<sv\_status\_change\_cause\_code>cause\_code\_none</sv\_status\_change\_cause\_code>

<sv\_old\_sp\_authorization\_ts>2001-12-17T09:30:47Z

</sv\_old\_sp\_authorization\_ts>

<svb\_broadcast\_timestamp>2001-12-17T09:30:47Z

</svb\_broadcast\_timestamp>

<sv\_conflict\_timestamp>2001-12-17T09:30:47Z

</sv\_conflict\_timestamp>

<sv\_customer\_disconnect\_date>2001-12-17T09:30:47Z

</sv\_customer\_disconnect\_date>

<sv\_effective\_release\_date>2001-12-17T09:30:47Z

</sv\_effective\_release\_date>

<svb\_disconnect\_complete\_timestamp>2001-12-17T09:30:47Z

</svb\_disconnect\_complete\_timestamp>

<sv\_cancellation\_timestamp>2001-12-17T09:30:47Z

</sv\_cancellation\_timestamp>

<svb\_creation\_timestamp>2001-12-17T09:30:47Z

</svb\_creation\_timestamp>

<svb\_failed\_sp\_list>

<sp\_id>1111</sp\_id>

<sp\_name>Telco 1</sp\_name>

</svb\_failed\_sp\_list>

<svb\_modified\_timestamp>2001-12-17T09:30:47Z

</svb\_modified\_timestamp>

<sv\_old\_sp\_cancellation\_timestamp>2001-12-17T09:30:47Z

</sv\_old\_sp\_cancellation\_timestamp>

<sv\_new\_sp\_cancellation\_timestamp>2001-12-17T09:30:47Z

</sv\_new\_sp\_cancellation\_timestamp>

<sv\_old\_sp\_conflict\_resolution\_timestamp>2001-12-17T09:30:47Z

</sv\_old\_sp\_conflict\_resolution\_timestamp>

<sv\_new\_sp\_conflict\_resolution\_timestamp>2001-12-17T09:30:47Z

</sv\_new\_sp\_conflict\_resolution\_timestamp>

<sv\_porting\_to\_original\_sp\_switch>1

</sv\_porting\_to\_original\_sp\_switch>

<sv\_precancellation\_status>pre\_cancel\_status\_conflict

</sv\_precancellation\_status>

<sv\_timer\_type>medium\_timers</sv\_timer\_type>

<sv\_business\_type>medium\_days\_hours</sv\_business\_type>

<svb\_sv\_type>wireless</svb\_sv\_type>

<svb\_optional\_data>

<od\_field>

<od\_name>ALTSPID</od\_name>

<od\_value>3333</od\_value>

</od\_field>

</svb\_optional\_data>

<sv\_new\_sp\_medium\_timer\_indicator>1

</sv\_new\_sp\_medium\_timer\_indicator>

<sv\_old\_sp\_medium\_timer\_indicator>1

</sv\_old\_sp\_medium\_timer\_indicator>

<sv\_concurrence>1</sv\_concurrence>

<activity\_timestamp>2012-12-17T09:30:46.136Z </activity\_timestamp>

</sv\_data>

</sv\_list>

<sv\_remaining\_count>0</sv\_remaining\_count>

</SvQueryReply>

</Message>

</npac\_to\_soa>

</MessageContent>

</SOAMessages>

1. **XSD:**

[snip]

<xs:complexType name="SubscriptionVersionQueryData">

<xs:sequence>

<xs:element name="sv\_id" type="SubscriptionVersionId"/>

<xs:element name="sv\_tn" type="PhoneNumber"/>

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

<xs:element name="svb\_new\_sp" type="ServiceProvId"/>

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

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

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

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

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

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

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

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

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

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

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

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

<xs:element name="sv\_lnp\_type" type="LNPType"/>

<xs:element name="download\_reason" type="DownloadReason"/>

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

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

<xs:element name="sv\_status" type="VersionStatus"/>

<xs:element name="sv\_old\_sp" type="ServiceProvId"/>

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

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

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

<xs:element name="sv\_old\_sp\_authorization" type="ServiceProvAuthorization" minOccurs="0"/>

<xs:element name="sv\_status\_change\_cause\_code" type="SubscriptionStatusChangeCauseCode" minOccurs="0"/>

<xs:element name="sv\_old\_sp\_authorization\_ts" type="xs:dateTime" minOccurs="0"/>

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

<xs:element name="sv\_conflict\_timestamp" type="xs:dateTime" 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\_disconnect\_complete\_timestamp" type="xs:dateTime" minOccurs="0"/>

<xs:element name="sv\_cancellation\_timestamp" type="xs:dateTime" minOccurs="0"/>

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

<xs:element name="svb\_failed\_sp\_list" type="FailedSpList" minOccurs="0"/>

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

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

<xs:element name="sv\_old\_sp\_cancellation\_timestamp" type="xs:dateTime" minOccurs="0"/>

<xs:element name="sv\_new\_sp\_cancellation\_timestamp" type="xs:dateTime" minOccurs="0"/>

<xs:element name="sv\_old\_sp\_conflict\_resolution\_timestamp" type="xs:dateTime" minOccurs="0"/>

<xs:element name="sv\_new\_sp\_conflict\_resolution\_timestamp" type="xs:dateTime" minOccurs="0"/>

<xs:element name="sv\_porting\_to\_original\_sp\_switch" type="xs:boolean"/>

<xs:element name="sv\_precancellation\_status" type="SubscriptionPreCancellationStatus" minOccurs="0"/>

<xs:element name="sv\_timer\_type" type="SubscriptionTimerType" minOccurs="0"/>

<xs:element name="sv\_business\_type" type="SubscriptionBusinessType" minOccurs="0"/>

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

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

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

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

<xs:element name="sv\_concurrence" type="xs:boolean" minOccurs="0"/>

<xs:element name="activity\_timestamp" type="xs:dateTime"/>

</xs:sequence>

</xs:complexType>

[snip]