NPAC SMS/Vendor Certification and Regression Test Plan

**For New Vendors Certification and Existing Vendors Regression Testing up to and including NPAC Release 5.0**

**Chapter 15**

XXXXX NN, 2020

Release 5.0

**PRE-PRODUCTION REVIEW COPY February 25, 2020**

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**15. Individual Turn Up Test Scenarios related to NPAC Release 3.4.0.**

Section 15 contains all test cases written for Vendor Turn Up testing of Release 3.4.0.x of the NPAC software as well as a testing plan for NANC 458, Service Provider Requested Notification Suppression Testing introduced in Release 3.4.8 as defined in NANC 547.

With the adoption of NANC 460, CMIP single TN notification message formats have been sunset and only TN Range Notification message formats are used. Most of the test cases in this section identify the SV notifications being sent to SOA(s) and sometimes list out the data being sent in the notification including the TN and Subscription Version (SV) ID information. The actual formats of the TN and SV ID information being sent in notifications to SOAs depends on the interface type (CMIP vs. XML) as well as the TNs being operated on (single TN, TN range) and whether or not the SV IDs associated with the TN range are consecutive. When TN and SV ID information is listed as part of a notification being sent to SOA, it will represent one of the following:

* Notification associated with a CMIP single TN or TN range request, XML TN range request, and for TN range requests, the SV IDs associated with a TN range are consecutive (can be represented by a start/end SV ID range):
  + start TN
  + end TN (will be the same as the start TN for a notification associated with a CMIP single TN request)
  + start SV ID
  + end SV ID (will be the same as the start SV ID for a notification associated with a CMIP single TN request)
* Notification associated with an XML single TN request:
  + TN
  + SV ID
* Attribute Value Change and Status Attribute Value Change Notifications associated with a CMIP TN Range request where the SV IDs associated with the TN Range are non-consecutive:
  + start TN
  + end TN
  + list of SV IDs
* Notification associated with an XML TN Range request where the SV IDs associated with the TN Range are non-consecutive; also for CMIP Cancel Acknowledgement and Donor Service Provider Customer Disconnect Date notifications for a TN range where the SV IDs are non-consecutive:
  + list of {TN, SV ID} pairs

In the impacted test cases defined below, if the test case includes notifications that identify TN/SV ID, the flows may define this as TN information and SV ID information and the reader should refer to this section to understand the actual TN and SV ID information sent.

# NANC 355 – Modification of NPA-NXX Effective Date

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 355-1** | | SUT Priority: | | **SOA** | | Required | | |
| **LSMS** | | N/A | | |
|  | **Objective:** | | NANC 355-1 SOA – Service Provider SOA application accepts an NPA-NXX modify request initiated by NPAC Personnel on the NPAC SMS where the NPA-NXX Effective Date is modified and the current date is less than the existing NPA-NXX Effective Date – Success  **Note:** No Pending-like Subscription Versions or Scheduled NPA-NXX-Xs/NPBs exist within the respective NPA-NXX | | | | | | | |
|  |  | |  | | | | | | | |
| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 355 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | RR3-658, RR3-659, RR3-661, RR3-662, RR3-663, RR3-665, RR3-668, RR3-671, RR3-672, R3-655, | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.2 NPA-NXX Modification by NPAC | | | | |
|  |  | |  | | | | | | | |
| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. The NPA-NXX that is going to be modified in this test case exists on the NPAC SMS, is not involved in an NPA-Split, and does not have any associated subscription versions. 2. Verify the Regional NPA-NXX Modification Flag Indicator is set to TRUE. 3. Verify the Service Provider SOA NPA-NXX Modification Flag Indicator is set to their production value. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
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| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | NPAC | NPAC personnel take action to modify an NPA-NXX Effective Date for a specified Service Provider:  NPAC SMS issues an M-SET request to itself to modify the local serviceProvNPA-NXX object. | | NPAC | | NPAC SMS receives the M-SET request and issues an M-SET response indicating the serviceProvNPA-NXX object was modified successfully. | | | |
| 2. | NPAC | Based on the Service Provider SOA NPA-NXX Modification Flag Indicator the NPAC SMS will send:   1. For SP SOAs that are accepting downloads for the NPA-NXX for which the Effective Date was modified:  * The NPAC SMS sends an M-SET request in CMIP (or NXMD – NpaNxxModifyDownload in XML) to all SOAs that support NPA-NXX Modify as indicated in their Service Provider profile, for the NPA-NXX specifying the modified NPA-NXX Effective Date.   2. For SOAs that don’t support NPA-NXX Modify as indicated in their Service Provider profile:   * The NPAC SMS sendsan M-DELETE for the serviceProvNPA-NXX object (not available over the XML interface). * The SOA responds to the M-DELETE (not available over the XML interface). * Then the NPAC SMS sends an M-CREATE for the serviceProvNPA-NXX object (not available over the XML interface) (using the same object ID as the DELETE request for the same object) with the modified NPA-NXX Effective Date. | | SP | | Based on the Service Provider SOA NPA-NXX Modification Flag Indicator setting:   1. All SOAs in the region accepting downloads for the NPA-NXX for which the Effective Date was modified AND that support NPA-NXX Modify, receive the M-SET request serviceProvNPA-NXX in CMIP (or NXMD – NpaNxxModifyDownload in XML).   SOAs that received the M-SET request in CMIP (or NXMD – NpaNxxModifyDownload in XML) issue an M-SET response in CMIP (or DNLR - DownloadReply in XML) indicating the serviceProvNPA-NXX object was modified successfully.   1. All SOAs in the region not accepting downloads for the modified NPA-NXX, receive an M-DELETE for the serviceProvNPA-NXX object (not available over the XML interface) that was modified by NPAC personnel in test step 1, and issue an M-DELETE response (not available over the XML interface) to the NPAC SMS.   These same SOAs then receive the M-CREATE for the same serviceProvNPA-NXX object (not available over the XML interface) (including the same object ID indicated in the M-DELETE (not available over the XML interface)). | | | |
| 3. | SP | Using their SOA, Service Providers perform a local query for the NPA-NXX that was modified during this test case. | | SP | | Verify the NPA-NXX exists with the modified NPA-NXX Effective Date. | | | |
| **E.** | **Pass/Fail Analysis, NANC 355-1** | | | | | | |
| Pass | Fail | NPAC personnel performed the test case as written. | | | | | | | |
| Pass | Fail | Service Provider personnel performed the test case as written and verify the Effective Date for the NPA-NXX in their local system reflects the modified date assigned by NeuStar personnel. | | | | | | | |

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 355-2** | | SUT Priority: | | **SOA** | | N/A | | |
| **LSMS** | | Required | | |
|  | **Objective:** | | NANC 355-2 LSMS - Service Provider LSMS application accepts an NPA-NXX modify request initiated by NPAC Personnel using the NPAC SMS where the NPA-NXX Effective Date is modified – Success | | | | | | | |
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| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 355 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | RR3-658, RR3-659, RR3-661, RR3-662, RR3-663, RR3-665, RR3-668, RR3-673, RR3-674, R3-655 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.2 NPA-NXX Modification by NPAC | | | | |
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| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. The NPA-NXX that is going to be modified in this test case exists on the NPAC SMS, is not involved in an NPA-Split, and does not have any associated subscription versions. 2. Verify the Regional NPA-NXX Modification Flag Indicator is set to TRUE. 3. Verify the Service Provider LSMS NPA-NXX Modification Flag Indicator is set to their production value. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | NPAC | NPAC personnel take action to modify an NPA-NXX Effective Date for a specified Service Provider:  NPAC SMS issues an M-SET request to itself to modify the local serviceProvNPA-NXX object. | | NPAC | | NPAC SMS receives the M-SET request and issues an M-SET response indicating the serviceProvNPA-NXX object was modified successfully. | | | |
| 2. | NPAC | Based on the Service Provider LSMS NPA-NXX Modification Flag Indicator the NPAC SMS will send:   1. For SP LSMSs that are accepting downloads for the NPA-NXX for which the Effective Date was modified:  * The NPAC SMS sends an M-SET request in CMIP (or NXMD – NpaNxxModifyDownload in XML) to all LSMSs that support NPA-NXX Modify as indicated in their Service Provider profile, for the NPA-NXX specifying the modified NPA-NXX Effective Date.   2. LSMSs that don’t support NPA-NXX Modify as indicated in their Service Provider profile:   * The NPAC SMS sends an M-DELETE for the serviceProvNPA-NXX object (not available over the XML interface) * The LSMS responds (not available over the XML interface) to the M-DELETE. * Then the NPAC SMS sends an M-CREATE for the serviceProvNPA-NXX object (not available over the XML interface) (using the same object ID as the DELETE request for the same object) with the modified NPA-NXX Effective Date. | | SP | | Based on the Service Provider LSMS NPA-NXX Modification Flag Indicator setting:   1. All LSMSs in the region accepting downloads for the NPA-NXX for which the Effective Date was modified AND that support NPA-NXX Modify, receive the M-SET request serviceProvNPA-NXX in CMIP (or NXMD – NpaNxxModifyDownload in XML).   LSMSs that received the M-SET request in CMIP (or NXMD – NpaNxxModifyDownload in XML) issue an M-SET response in CMIP (or DNLR - DownloadReply in XML) indicating the serviceProvNPA-NXX object was modified successfully.   1. All LSMSs in the region not accepting downloads for the modified NPA-NXX, receive an M-DELETE for the serviceProvNPA-NXX object (not available over the XML interface) that was modified by NPAC personnel in test step 1, and issue an M-DELETE response (not available over the XML interface) to the NPAC SMS.   These same LSMSs then receive the M-CREATE for the same serviceProvNPA-NXX object (not available over the XML interface) (including the same object ID indicated in the M-DELETE) (not available over the XML interface). | | | |
| 3. | NPAC | Using their LSMS, Service Providers perform a local query for the NPA-NXX that was modified during this test case. | | SP | | Verify the NPA-NXX exists with the modified NPA-NXX Effective Date. | | | |
| **E.** | **Pass/Fail Analysis, NANC 355-2** | | | | | | |
| Pass | Fail | NPAC personnel performed the test case as written. | | | | | | | |
| Pass | Fail | Service Provider personnel performed the test case as written and verify the Effective Date for the NPA-NXX in their local system reflects the modified date assigned by NeuStar personnel. | | | | | | | |

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 355-3** | | SUT Priority: | | **SOA** | | Optional | | |
| **LSMS** | | N/A | | |
|  | **Objective:** | | NANC 355-3 SOA – Service Provider Personnel attempt to submit an NPA-NXX modify request to the NPAC SMS – Error  **Note:** Per IIS3\_4\_1aPart2, this flow is not available over the XML interface (this is NPAC Personnel only functionality). | | | | | | | |
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| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 355 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | RR3-660 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.2 NPA-NXX Modification by NPAC | | | | |
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| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. The NPA-NXX that is going to be modified in this test case exists on the NPAC SMS, is not involved in an NPA-Split, and does not have any associated subscription versions. 2. Verify the Regional NPA-NXX Modification Flag Indicator is set to TRUE. 3. Verify the Service Provider LSMS NPA-NXX Modification Flag Indicator is set to their production value. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | SP | SP personnel attempt to modify an NPA-NXX Effective Date for an NPA-NXX for whom they are the current SPID.  SOA issues an M-SET request in CMIP (not available over the XML interface) to the NPAC SMS for the serviceProvNPA-NXX object specifying a new Effective Date for the NPA-NXX. | | NPAC | | NPAC SMS receives an M-SET request in CMIP (not available over the XML interface) for an NPA-NXX to modify the Effective Date.  This violates system requirements and the NPAC SMS fails the request.  If the Service Provider SOA supports Non-Action Application Level Errors, the NPAC SMS issues an M-SET response **processing\_failure** along with an error code in CMIP (not available over the XML interface).  If the Service Provider SOA does not support Non-Action Application Level Errors the NPAC SMS issues an M-SET response indicating **access\_denied** in CMIP (not available over the XML interface).  The respective NPA-NXX is not updated. | | | |

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| **E.** | **Pass/Fail Analysis, NANC 355-3** | |
| Pass | Fail | NPAC personnel performed the test case as written. | |
| Pass | Fail | Service Provider personnel performed the test case as written and successfully handled the failure from the NPAC SMS. | |

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 355-4** | | SUT Priority: | | **SOA** | | N/A | | |
| **LSMS** | | Optional | | |
|  | **Objective:** | | NANC 355-4 LSMS – Service Provider Personnel using their LSMS system attempt to submit an NPA-NXX modify request to the NPAC SMS – Error  **Note:** Per IIS3\_4\_1aPart2, this flow is not available over the XML interface (this is NPAC Personnel only functionality). | | | | | | | |
|  |  | |  | | | | | | | |
| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 355 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | RR3-660 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.2 NPA-NXX Modification by NPAC | | | | |
|  |  | |  | | | | | | | |
| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. The NPA-NXX that is going to be modified in this test case exists on the NPAC SMS, is not involved in an NPA-Split, and does not have any associated subscription versions. 2. Verify the Regional NPA-NXX Modification Flag Indicator is set to TRUE. 3. Verify the Service Provider LSMS NPA-NXX Modification Flag Indicator is set to their production value. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
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| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | SP | SP personnel attempt to modify an NPA-NXX Effective Date for an NPA-NXX for whom they are the current SPID.  LSMS issues an M-SET request in CMIP (not available over the XML interface) to the NPAC SMS for the serviceProvNPA-NXX object specifying a new Effective Date for the NPA-NXX. | | NPAC | | NPAC SMS receives an M-SET request in CMIP (not available over the XML interface) for an NPA-NXX to modify the Effective Date.  This violates system requirements and the NPAC SMS fails the request.  If the Service Provider LSMS supports Application Level Errors, the NPAC SMS issues an M-SET response **processing\_failure** along with an error code in CMIP.  If the Service Provider LSMS does not support Application Level Errors the NPAC SMS issues an M-SET response indicating **access\_denied** in CMIP.  The respective NPA-NXX is not updated. | | | |

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| **E.** | **Pass/Fail Analysis, NANC 355-4** | |
| Pass | Fail | NPAC personnel performed the test case as written. | |
| Pass | Fail | Service Provider personnel performed the test case as written and successfully handled the failure from the NPAC SMS. | |

# NANC 408 – SPID Migration Automation Change

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 408-1** | | SUT Priority: | | **SOA** | | Conditional | | |
| **LSMS** | | Conditional | | |
|  | **Objective:** | | NANC 408 -1 SOA/LSMS – Service Provider SOA and LSMS applications that support Online SPID Migrations, accept a SPID Migration request from the NPAC SMS to change ownership of an NPA-NXX. | | | | | | | |
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| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 408 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | RR3-591, RR3-592 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.8.5.1 NPAC Initiated SPID Migration Request to Local System | | | | |
|  |  | |  | | | | | | | |
| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. Verify that the Regional SPID Migration Online Functionality Indicator is set to TRUE. 2. Verify that the Service Provider SOA Automated SPID Migration Indicator is set to TRUE. 3. Verify that the Service Provider LSMS Automated SPID Migration Indicator is set to TRUE. 4. Verify no Pending-Like Subscription Versions or NPA-NXX-Xs/NPBs exist within the respective NPA-NXX(s) indicated in the SPID Migration. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | NPAC | NPAC Personnel take action to perform an Online SPID Migration.  The NPAC SMS issues an M-ACTION Request lnpSpidMigration in CMIP (or SPMN – LnpSpidMigrationNotification in XML) to SOAs and LSMSs in the region that support Automated SPID Migration Indicator (for their respective system). | | SP | | All SOAs and LSMSs in the region that support Automated SPID Migration receive the M-ACTION Request lnpSpidMigration in CMIP (or SPMN – LnpSpidMigrationNotification in XML) from the NPAC SMS and issue an M-ACTION Response lnpSpidMigration in CMIP (or NOTR – NotificationReply in XML) back to the NPAC SMS. | | | |
| 2. | SP | SP Personnel perform a local query (using their SOA and/or LSMS) for the NPA-NXX(s) that were updated as a result of the SPID Migration. | | SP | | Verify the NPA-NXX reflects the code holder as the Migrating To Service Provider in the SPID Migration request. | | | |

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| **E.** | **Pass/Fail Analysis, NANC 408-1** | |
| Pass | Fail | NPAC personnel performed the test case as written. | |
| Pass | Fail | Service Provider personnel performed the test case as written. | |

# NANC 414 – Validation of Code Ownership in the NPAC

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 414 - 1** | | SUT Priority: | | **SOA** | | Optional | | |
| **LSMS** | | N/A | | |
|  | **Objective:** | | NANC 414 -1 SOA – Service Provider personnel using their SOA application submit a NPA-NXX create request where the SPID and OCN value as configured on the NPAC SMS do not match the request. - Error | | | | | | | |
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| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 414 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | R3-687 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.5 NPA-NXX Creation by the SOA | | | | |
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| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. Verify the Regional NPAC NPA-NXX Ownership Edit Flag Indicator is set to TRUE. 2. Configure a list of valid NPA-NXX for Service Provider under test. 3. Configure a list of valid OCNs for Service Provider under test. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | SP | Service Provider personnel using their SOA take action to create an NPA-NXX for an NPA-NXX where the SPID and the OCN value configured on the NPAC SMS do not match.  SOA issues an M-CREATE Request serviceProvNPA-NXX in CMIP (or NXCQ – NpaNxxCreateRequest in XML) to the NPAC SMS. | | NPAC | | NPAC receives the M-CREATE Request serviceProvNPA-NXX in CMIP (or NXCQ – NpaNxxCreateRequest in XML) and determines that the SPID and OCN value configured on the NPAC SMS do not match.  **This violates system requirements**.  The NPAC SMS logs an error indicating that the NPA-NXX create request failed due to the OCN criteria mismatch.  If the Service Provider SOA supports Application Level Errors, the NPAC SMS issues an M-CREATE Error Response in CMIP to the SOA indicating **processingFailure** along with an error code (or NXCR – NpaNxxCreateReply in XML)**.**  If the Service Provider SOA does not support Application Level Errors the NPAC SMS issues an M-SET response in CMIP indicating **access\_denied** (or NXCR – NpaNxxCreateReply in XML).  The respective NPA-NXX is not created. | | | |
| **E.** | **Pass/Fail Analysis, NANC 414-1** | | | | | | |
| Pass | Fail | NPAC personnel performed the test case as written. | | | | | | | |
| Pass | Fail | Service Provider personnel performed the test case as written and handled the failure from the NPAC SMS. | | | | | | | |

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| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 414-2** | | SUT Priority: | | **SOA** | | N/A | | |
| **LSMS** | | Optional | | |
|  | **Objective:** | | NANC 414-2 LSMS – Service Provider personnel using their LSMS application submit a NPA-NXX create request where the SPID and OCN value as configured on the NPAC SMS do not match the request – Error  **Note:** Per IIS3\_4\_1aPart2 scenario B.4.1.4, this flow is not available over the XML interface. | | | | | | | |
|  |  | |  | | | | | | | |
| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | |  | | Change Order Number(s): | | NANC 414 | | | | |
|  | **NANC FRS Version Number:** | |  | | **Relevant Requirement(s):** | | R3-687 | | | | |
|  | **NANC IIS Version Number:** | |  | | **Relevant Flow(s):** | | B.4.1.4 NPA-NXX Creation by the Local SMS | | | | |
|  |  | |  | | | | | | | |
| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. Verify the Regional NPAC NPA-NXX Ownership Edit Flag Indicator is set to TRUE. 2. Configure a list of valid NPA-NXX for Service Provider under test. 3. Configure a list of valid OCNs for Service Provider under test. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 11. | SP | Service Provider personnel using their LSMS take action to create an NPA-NXX for an NPA-NXX where the SPID and the OCN value configured on the NPAC SMS do not match.  LSMS issues an M-CREATE Request serviceProvNPA-NXX to the NPAC SMS. | | NPAC | | NPAC receives the M-CREATE Request serviceProvNPA-NXX and determines that the SPID and OCN value configured on the NPAC SMS do not match.  **This violates system requirements.**  The NPAC SMS logs an error indicating that the NPA-NXX create request failed due to the OCN criteria mismatch.  If the Service Provider LSMS supports Application Level Errors, the NPAC SMS issues an M-CREATE Error Response to the SOA indicating **processingFailure** along with an error code**.**  If the Service Provider SOA does not support Application Level Errors the NPAC SMS issues an M-SET response indicating **access\_denied**.  The respective NPA-NXX is not created. | | | |

|  |  |  |
| --- | --- | --- |
| **E.** | **Pass/Fail Analysis, NANC 414-2** | |
| Pass | Fail | NPAC personnel performed the test case as written. | |
| Pass | Fail | Service Provider personnel performed the test case as written and handled the failure from the NPAC SMS. | |

# NANC 426 - Provide Modify Request Data to the SOA from Mass Updates

This change order can be certified by executing an updated existing test case from the Turn Up Test Plan.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.** | **TEST IDENTITY** | |  | | | | | | | |
|  | **Test Case Number:** | | **NANC 68 - 1** | | SUT Priority: | | **SOA** | | Conditional | | |
| **LSMS** | | Optional | | |
|  | **Objective:** | | NPAC OP GUI – NPAC Personnel submit a Mass Update request specifying a TN range (no Subscription Versions with status of, partial failure, sending and disconnect-pending exist within a Service Provider ID and for the TN range specified). If the Service Provider under test supports Number Pool blocks, the TN range specified should also completely include a Number Pool Block. – Success | | | | | | | |
|  |  | |  | | | | | | | |
| **B.** | **REFERENCES** | |  | | | | | | | |
|  | **NANC Change Order Revision Number:** | | N/A | | Change Order Number(s): | | NANC 68 – Mass Update Requirements Modification | | | | |
|  | **NANC FRS Version Number:** | | 2.0.0 | | **Relevant Requirement(s):** | | R3-7.1, R3-7.2, R3-7.5, R3-7.6, R3-7.7 | | | | |
|  | **NANC IIS Version Number:** | | 2.0.1 | | **Relevant Flow(s):** | | B.8.3 Mass Update  B.8.3.1 Mass Update for a range of TNs that contains a Number Pool Block | | | | |
|  |  | |  | | | | | | | |
| **C.** | **PREREQUISITE** | |  | | | | | | | |
|  | **Prerequisite Test Cases:** | |  | | | | | | | |
|  | **Prerequisite NPAC Setup:** | | 1. Verify that some Subscription Versions exist with a status of active, pending, cancel, cancel-pending, and conflict within the TN range and for the Service Provider you are going to specify in the Mass Update. 2. Verify Subscription Versions exist with a status of partial failure, sending, and disconnect-pending. 3. If the Service Provider under test supports Number pooling, verify a Number Pool Block exist within the TN range specified. 4. The system under test is configured to receive downloads for the NPA or NPA-NXX used in this test case. 5. Verify the SOA Supports SV Type and all Optional Data element Indicators are set to their production values for the Service Provider under test. In this test case any Optional Data elements supported by the SP under test and SV Type data (if the SP under test supports it) should be specified. 6. Verify the Service Provider’s S-3.00 C, Attribute Value Change, For Mass update of Active SVs and NPBs notification priority is set to their production value. | | | | | | | |
|  | **Prerequisite SP Setup:** | |  | | | | | | | |
|  |  | |  | | | | | | | |
| **D.** | **TEST STEPS and EXPECTED RESULTS** | | | | | | |
| **Row #** | **NPAC or SP** | **Test Step** | | **NPAC or SP** | | **Expected Result** | | | |
| 1. | NPAC | Using the NPAC OP GUI, NPAC Personnel submit a request for a Mass Update by specifying a TN Range (if the Service Provider under test supports Number Pooling, the TN range should completely include a Number Pool Block) for a Service Provider ID as the selection criteria. The following attributes will be mass updated (for respective TNs and (if supported by the SUT, Number Pool Block):   * LRN * SV Type – if supported by the Service Provider * ISVM DPC * ISVM SSN * CNAM DPC * CNAM SSN * LIDB DPC * LIDB SSN * WSMSC DPC – (if supported by the service provider) * WSMSC SSN – (if supported by the service provider * Optional Data elements – if supported by the service provider) | | NPAC | | The NPAC SMS searches the Subscription Version database for the Subscription Versions and Number Pool Block (if supported by SUT and indicated in the Mass Update criteria) that match the selection criteria. For all objects that match the criteria, the following occurs:   * The NPAC SMS logs an exception for each Subscription Version within the TN range specified for the Mass Update that has a status of either old, partial failure, sending, cancel or disconnect-pending. * If WSMSC data is supported by the LSMS it will be used in the Mass Update. * If Optional Data elements or SV Type are supported by the LSMS they will be used in the Mass Update. | | | |
| 2. | NPAC | The NPAC SMS issues:   * An M-SET subscriptionVersion Request(s) in CMIP (or SVMD – SvModifyDownload in XML) to the LSMS under test to modify the specified attributes for non-pooled SVs in the Mass Update Request. * (If the original request criteria included a NPB) The NPAC SMS issues an M-SET in CMIP (or PBMD – NpbModifyDownload in XML) for the number pool block to the LSMSs accepting downloads for this NPA-NXX. | | SP | | The LSMS receives:   * The M-SET Request(s) in CMIP (or SVMD – SvModifyDownload in XML) for the non-pooled SVs. * (If the original request criteria included a NPB) The LSMS i receives the M-SET Request numberPoolBlock in CMIP (or PBMD – NpbModifyDownload in XML).   The LSMS updates the specified attributes for the Subscription Versions and Number Pool Block (if the original request criteria included a NPB) and issues the respective M-SET Response(s) in CMIP (or DNLR – DownloadReply in XML) back to the NPAC SMS.  Only those LSMSs that support WSMSC data and/or Optional Data elements and SV Type will receive that information in the M-SET request. | | | |
| 3. | NPAC | The NPAC SMS issues an M-EVENT-REPORT subscriptionVersionRangeStatusAttributeValueChange in CMIP (or VATN – SvAttributeValueChangeNotification in XML) to the Current Service Provider SOA to set the subscriptionVersionStatus to ‘active’ for each mass updated (non-pooled) Subscription Version in the range of TNs.  The NPAC SMS issues an M-EVENT-REPORT numberPoolBlockStatusAttributeValueChange in CMIP (or PATN – NpbAttributeValueChangeNotification in XML) to the block holder Service Provider SOA to set the number pool block status to ‘active’ if the numberPoolBlockSOA-Origination indicator is ‘TRUE’. | | SP | | The Current Service Provider SOA receives the M-EVENT-REPORT(s) in CMIP (or VATN – SvAttributeValueChangeNotification in XML)/PATN – NpbAttributeValueChangeNotification in XML) from the NPAC SMS and issues M-EVENT-REPORT Confirmations in CMIP (or NOTR – NotificationReply in XML) back to the NPAC SMS indicating it received the NPAC Requests successfully.  This includes the subscriptionVersion RangeStatusAttributeValueChange as well as the numberPoolBlockStatusAttributeValueChange (if the numberPoolBlockSOA-Origination indicator is set to TRUE). | | | |
| 4. | NPAC | If the Service Provider under test S-3.00 C, Attribute Value Change, For Mass update of Active SVs and NPBs notification priority is set to a value other than NONE then, the NPAC SMS issues an M-EVENT-REPORT subscriptionVersionRangeAttributeValueChange in CMIP (or VATN – SvAttributeValueChangeNotification in XML) to the Current Service Provider SOA with the modified attributes for the non-pooled subscription versions.  The NPAC SMS would also issue an M-EVENT-REPORT numberPoolBlockAttributeValueChange in CMIP (or PATN – NpbAttributeValueChangeNotification in XML) to the Current/block holder Service Provider SOA with the modified attributes for the number pool block IF the numberPoolBlockSOA-OriginationIndicator is set to TRUE. | | SP | | The Current Service Provider SOA receives the M-EVENT-REPORT(s) in CMIP (or VATN – SvAttributeValueChangeNotification in XML/PATN – NpbAttributeValueChangeNotification in XML) from the NPAC SMS and issues M-EVENT-REPORT Confirmations in CMIP (or NOTR – NotificationReply in XML) back to the NPAC SMS indicating it received the NPAC Request successfully.  This includes the subscriptionVersion RangeAttributeValueChange as well as the numberPoolBlockAttributeValueChange (if the numberPoolBlockSOA-Origination indicator is set to TRUE). | | | |
| 5. | NPAC | Using the NPAC OP GUI, request a Mass Update Exception Report by specifying a time range that corresponds to the creation timestamp for the ‘exception’ log entries created as a result of the Mass Update requested. | | NPAC | | The NPAC SMS generates a Mass Update exception report to the specified destination, ordered by timestamp, including the following information for the Subscription Versions that were not updated during Mass Update processing:   1. Subscription Version ID 2. TN 3. Current Service Provider 4. Event ID of the Mass Update Request 5. Timestamp of the Mass Update exception  * Subscription Version status at the time of exception   The report for this test case should not contain exceptions if the Mass Update was processed appropriately. | | | |
| 6. | NPAC | NPAC Personnel perform a query for the Subscription Versions and Number Pool Block in the range that did not have exceptions to verify that the fields selected to be mass updated were modified. | | NPAC | | The Subscription Versions and Number Pool Blocks were modified correctly. | | | |
| 7. | SP - optional | SP Personnel, using their LSMS, perform a local query for the Subscription Versions and also query for the Number Pool Block to verify that the fields selected to be mass updated were modified. | | SP | | The Subscription Versions and Number Pool Block were modified correctly.  Verify that Active Subscription Versions and the active Number Pool Block that meet the Mass Update criteria are updated. | | | |
| 8. | SP | If the Service Provider under test S-3.00 C, Attribute Value Change, For Mass update of Active SVs and NPBs notification priority is set to a value other than NONE then SP Personnel using their SOA should perform a local query for the Subscription Versions and Number Pool Block (if the numberPoolBlockSOA-Origination Indicator is TRUE) to verify the fields selected to be mass updated were modified. | | SP | | The Subscription Version and Number Pool Block (if numberPoolBlockSOA-Origination Indicator is set to TRUE) attributes were modified as specified in the Mass Update request. | | | |
| 9. | SP – conditional | SP Personnel, using either the SOA/SOA LTI or LSMS, perform an NPAC query for the Subscription Versions and Number Pool Block in the range that did not have exceptions to verify that the Subscription Version fields selected to be mass updated were modified. | | SP | | The Subscription Versions and Number Pool Block were modified correctly.  Verify that Active Subscription Versions and the active Number Pool Block that meet the Mass Update criteria are updated. | | | |
| 10. | NPAC | NPAC Personnel perform a full audit for the Subscription Version and Number Pool Block that were updated during this test case. | | NPAC | | Using the Audit Results Log verify that no updates were sent as a result of performing the audit. If updates were issued, the LSMS fails this test case. | | | |
| **E.** | **Pass/Fail Analysis, NANC 68-1** | | | | | | |
| Pass | Fail | NPAC personnel performed the test case as written. | | | | | | | |
| Pass | Fail | Service Provider personnel performed the test case as written and handled the failure from the NPAC SMS. | | | | | | | |

# NANC 458 – Service Provider Requested Notification Suppression

This section contains a testing strategy designed for Vendor Certification and Regression testing of Release 3.4.8 of the NPAC software. NPAC Release 3.4.8 included the implementation of NANC 458, Service Provider Requested Notification Suppression. This testing strategy involves no new test cases, instead relying on existing test cases that will be repeated under different conditions as described below.

Tests should be executed in three cycles:

1. Set up as a SPID in a Regular configuration (standalone SPID)
2. Set up as a SPID in a Delegation configuration (Grantor-Delegate – no authorized suppression)
3. Set up as a SPID in a Delegation configuration (Grantor-Delegate – authorized suppression in both directions between grantor and delegate)

For the Delegation configuration, submit the Request multiple times (variety of no suppression, single suppression, and multiple suppression) to cover the following scenarios:

1. suppress to self (Initiator SPID)
2. suppress to parent Grantor (if Initiator SPID is a Delegate)
3. suppress to Delegates(s) (if Initiator SPID is a Grantor or one of several Delegates related to a parent Grantor)
4. suppress to the Other SPID
5. suppress to the Other SPID’s Delegate(s)

Cycle 2 above (no authorized suppression) will use existing behavior (NPAC Delegation Feature), so only Create and Release test cases will be performed.

Suppression options are defined in the table below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Suppress Notifications Options:** | | | | |
| **Role of SPID Sending Request** | **Self (Initiator)** | **Grantor** | **Delegate(s)** | **Other SPID** | **Delegate(s) of Other SPID** |
|  |  |  |  |  |  |
| **BAU SPID** | Y | N/A | N/A | Y | Y |
| **Delegate** | Y | Y | Y | Y | Y |
| **Grantor** | Y | N/A | Y | Y | Y |
|  |  |  |  |  |  |
| (shading) | = Authorization required from the SPID being suppressed | | | | |

All testing for Service Provider-requested Notification Suppression will use existing Vendor Certification and Regression Test Cases as listed below for New Service Provider and Old Service Provider. All of the below Test Cases are run for Certification Testing. Many of the Test Cases below are also identified as Regression Test Cases in Chapter 7 – this means they are run in Regression Testing with a SPID in standalone configuration (Delegation feature not turned on). The ones identified as (Notification Suppression Regression) are Regression Test Cases used to Regression Test the Notification Suppression feature (Delegation feature turned on and Notification Suppression scenarios tested).

1. NSP SV Create with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     
   *Chapter 9, NANC 201-1 (Notification Suppression Regression) SOA – New Service Provider Personnel create an Inter-Service Provider Subscription Version for a single TN when the New Service Provider ‘Port In Timer’ and ‘SP Business Type’ are set to ‘SHORT’ and the Old Service Provider ‘Port Out Timer’ and ‘SP Business Type’ are set to ‘SHORT’, let the Initial Concurrence and Final Concurrence timers expire prior to Old Service Provider Concurrence – Success*
2. NSP SV Modify with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 8, 8.1.2.2.1.1 (Notification Suppression Regression) Modify required fields for a single TN ‘pending’ port with valid data. – Success (modify the New SP Due Date field to ensure an AVC is applicable to the test case)*
3. NSP SV Cancel with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 8, 8.1.2.5.1.2 Subscription Version Cancel With Only One Create Action Received (New Service Provider SOA Mechanized Interface). – Success*
4. NSP SV Cancel Concurrence with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 8, 8.1.2.5.1.7 Subscription Version Cancel by Service Provider SOA After Both Service Provider SOAs Have Concurred (New Service Provider’s SOA Mechanized Interface)*
5. NSP SV Cancel Un-Do with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter13, NANC 388-1 SOA – Using their SOA system, Service Provider personnel send an “un-do” cancel request to the NPAC SMS for a Subscription Version in a Cancel-Pending status for which they are either the New SP or Old SP that cancelled the SV – Success*
6. NSP SV Conflict Resolution with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 9, NANC 201-25 SOA – New Service Provider Personnel remove a Subscription Version from Conflict when the Timer Type and Business Type are set to ‘LONG’ (after the Conflict Resolution New Service Provider Restriction Tunable has expired) – Success*
7. NSP SV Activate with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 11, 2.8 (Notification Suppression Regression) SOA – Service Provider Personnel activate a single SV. Their Customer TN Range Notification Indicator is set to their production value. Even though this is a single SV, the activate request results in a range notification. – Success*
8. NSP SV Disconnect with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
   *Chapter 11, 2.19 (Notification Suppression Regression) SOA – Service Provider Personnel perform an immediate disconnect of a single active SV. Their Customer TN Range Notification Indicator is set to their production value. – Success*
9. NSP Pool Block Create with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
    *Chapter 10, 4.1.1 SOA - Service Provider Personnel create a non-contaminated Number Pool Block – Success*
10. NSP Pool Block Modify with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 10, 4.2.1 SOA- Service Provider Personnel modify an active Number Pool Block with the SOA Origination Indicator set to FALSE (and contains Subscription Versions with LNP Types of ‘POOL’, ‘LISP’ and ‘LSPP’). – Success  
    Also perform test 4.2.1 with SOA Origination Indicator set to TRUE*
11. OSP SV Create with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 8, 8.1.2.1.1.32 (Notification Suppression Regression) Create inter-service provider ‘pending’ port (concurrence) of a single TN via the SOA Mechanized Interface. – Success*
12. OSP SV Modify with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 12, 218-1 SOA – (Old) Service Provider Personnel submit a single TN, subscription version modify request specifying Authorization (FALSE) and a valid status change cause code, setting the subscription version status to conflict after both Service Providers have created/concurred to the port, and prior to the Conflict Restriction Window - SUCCESS*
13. OSP SV Cancel with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 11, 2.27 SOA – Old Service Provider Personnel cancel a single SV. Their Customer TN Range Notification Indicator is set to their production value. In the pre-requisite create process only the Old SP has submitted a create request. Even though this is a single SV, the cancel request results in a range notification. – Success*
14. OSP SV Cancel Concurrence with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 8, 8.1.2.5.1.6 Subscription Version Cancel by Service Provider SOA After Both Service Provider SOAs Have Concurred (Old Service Provider’s SOA Mechanized Interface)*
15. OSP SV Cancel Un-Do with notification suppression TRUE in some cycles and configurations, and FALSE in other cycles and configurations.  
     *Chapter 13, NANC 388-1 SOA – Using their SOA system, Service Provider personnel send an “un-do” cancel request to the NPAC SMS for a Subscription Version in a Cancel-Pending status for which they are either the New SP or Old SP that cancelled the SV – Success*

Test Case “Success” definition:

* When Notification Suppression is set to TRUE,
  + and requesting SPID is authorized by suppressed SPID to suppress – notifications are **suppressed**
  + and requesting SPID is NOT authorized by suppressed SPID to suppress – notifications are **sent**
* When Notification Suppression is set to FALSE,
  + and requesting SPID is authorized by suppressed SPID to suppress – notifications are **sent**
  + and requesting SPID is NOT authorized by suppressed SPID to suppress – notifications are **sent**

For Example, in test case 8.1.2.2.1.1 (Modify required fields for a single TN ‘pending’ port with valid data. – Success) test steps 4, 5, 6, and 7 would apply when notifications should be sent, and would not apply when notifications should be suppressed.

Step Result-4: NPAC SMS issues an M-EVENT-REPORT attributeValueChange in CMIP (or VATN – SvAttributeValueChangeNotification in XML) to the Old Service Provider SOA.

Step Result-5: The Old Service Provider SOA returns M-EVENT-REPORT confirmation in CMIP (or NOTR – NotificationReply in XML) to the NPAC SMS.

Step Result-6: NPAC SMS issues M-EVENT-REPORT attributeValueChange in CMIP (or VATN – SvAttributeValueChangeNotification in XML) to the New Service Provider SOA.

Step Result-7: The New Service Provider SOA returns M-EVENT-REPORT confirmation in CMIP (or NOTR – NotificationReply in XML) to the NPAC SMS.

Optionally, any additional tests may be executed with Notification Suppression set to TRUE or FALSE, and authorization given or not given by suppressed SPID.

The following table summarizes the Test Cases identified above, all of them being required for Certification Testing and the subset that is required for Regression Testing. The footnotes below the table identify how Regression Tests are performed.

|  |  |  |
| --- | --- | --- |
| Test Case Type and ID | Certification | Regression |
| NSP SV Create (Ch 9, NANC 201-1) | X | X\* |
| NSP SV Modify (Ch 8, 8.1.2.2.1.1) | X | X\* |
| NSP SV Cancel (Ch 8, 8.1.2.5.1.2) | X |  |
| NSP SV Cancel Concurrence (Ch 8, 8.1.2.5.1.7) | X | X |
| NSP SV Cancel Un-do (Ch 13, NANC 388-1) | X | X |
| NSP SV Conflict Resolution (Ch 9, NANC 201-25) | X |  |
| NSP SV Activate (Ch 11, 2.8) | X | X\* |
| NSP SV Disconnect (Ch 11, 2.19) | X | X\* |
| NSP Pool Block Create (Ch 10, 4.1.1) | X | X |
| NSP Pool Block Modify (Ch 10, 4.2.1) | X | X |
| OSP SV Create (Ch 8, 8.1.2.1.1.32) | X | X\* |
| OSP SV Modify (Ch 12, 218-1) | X |  |
| OSP SV Cancel (Ch 11, 2.27) | X | X |
| OSP SV Cancel Concurrence (Ch 8, 8.1.2.5.1.6) | X |  |
| OSP SV Cancel Un-do (Ch 13, NANC 388-1) | X | X |

“X\*” in the Regression column indicates the associated Test Case uses the Notification Suppression testing strategy identified in this Section when Regression Testing.

“X” in the Regression column indicates the associated Test Case does normal Regression Testing (as a standalone SPID without Notification Suppression).