Origination Date: 02/09/05

Originator: Nextel Communications

Change Order Number: NANC 402

Description: Validate Code Owner (SPID) Before Opening Code

Functionally Backwards Compatible: Yes

<div align="center">

IMPACT/CHANGE ASSESSMENT

</div>

FRS	IIS	GDMO	ASN.1	NPAC	SOA	LSMS
Y	Y	TBD	TBD	Y	TBD	TBD

Business Need:

Currently a Service Provider can open a Code (NPA-NXX) for portability in the NPAC whether or not they own the NPA-NXX. Codes are frequently opened under the wrong SPID due to typos or other types of errors by the Service Provider. This results in the following:

- SOA failures when attempting to perform an NSP Create for a ported PTN.

- Manual or NANC 323 SPID migrations, which are time consuming and resource constraining.

- Repeated failure transactions sent to NPAC due to data issues.

- Inability to activate ported subscribers until SPID migration has been completed.

Description of Change:

This change order recommends that NPAC incorporate additional validations prior to NPA-NXXs being opened for portability. Below is a matrix of possible solutions:

#	Possible Solution	Description	Impacts	Comments	Priority
		Manual Solutions			
1	**NPAC data audits**	NPAC personnel would audit/validate code entries in NPAC by a TBD frequency. NPAC would contact the carriers as defined in this change order. If no response is received in the timeframe defined in this order, NPAC will delete the code.		• This is completely manual and dependent on NPAC to validate the date in the agreed up timeframe. • No interface changes required.	1-Short term fix
2	**NPAC email validations of OCN vs. NPAC SPID and typos**	When a new code (NPA-NXX) is assigned to a carrier and the effective date (LERG/NANPA) has been reached, the service provider will email NPAC and include: • OCN	Interface changes will be required to prevent carriers from opening codes for portability in NPAC.	• Mapping would have to be performed to match OCNs to NPAC SPIDs. • Mapping would have to be maintained and	3

#	Possible Solution	Description	Impacts	Comments	Priority
		• NPAC SPID • NPA-NXX NPAC will validate ownership of the code by comparing the OCN to NPAC SPID to NPA-NXX.		updated. • The will provide validation of ownership and typos.	
3	**Block Process w/NO validation**	Mimic the current pooled block process in that carriers will email proof of the code assignment to NPAC. NPAC personnel will enter the code as defined in the email.	Interface changes will be required to prevent carriers from opening codes for portability in NPAC.		4
4	**NPAC email validation of typos**	When a new code (NPA-NXX) is assigned to a carrier and the effective date (LERG/NANPA) has been reached, the service provider will email NPAC and include: • OCN • NPAC SPID • NPA-NXX NPAC will compare OCN and NPA-NXX to NANPA data. If they match, NPAC will define the code with the NPAC SPID provided.	Interface changes will be required to prevent carriers from opening codes for portability in NPAC.	• There is no validation of NPAC SPID to OCN to confirm ownership of code.	5
Automated Solutions					
5	**Changes in the Code Assignment Process with validation of code ownership**	Mimic the current pooled block process by having the Part 3 form modified to include NPAC SPID. NANPA process would be changed so that the Part 3 form is forwarded to NPAC to open the code in NPAC.	Interface changes will be required to prevent carriers from opening codes for portability in NPAC.	• Would need FCC approval to modify the block process and forms.	2
6	**Automated validations of code ownership**	The SOA interface will be enhanced to validate ownership of an NPA-NXX when it is being defined in NPAC. If the carrier does not own the code being defined, a failure response will be provided in SOA. • This will require mapping of OCNs in NECA to NPAC SPIDs. • NPAC will validate the NPA-NXX as defined in	• Major interface changes required. • SPs SOA systems will have to be updated as well.	• Most costly solution • Most automated • Requires minimum manual validation to eliminate human error.	1-Long Term

#	Possible Solution	Description	Impacts	Comments	Priority
		NANPA belongs to the NPAC SPID that is defining the code in NPAC.			

Mar '05 – During the March 2005 LNPWG meeting, the group discussed the various options in this change order document. Nextel has proposed that the NPAC edit entries of portable NPA-NXX codes to the NPAC's network data in order to verify that the NPAC SPID associated with the code is the code-owner. A manual audit method is proposed in PIM 51 (the short-term approach) and an automated method is proposed in this change order (long term solution). Both the PIM and change order were accepted.

Considering the desire to pursue option #6 in the table above as the long-term solution, the majority of the discussion surrounded the difficulty in obtaining and maintaining an OCN to SPID cross-reference. It was suggested that we investigate an easier to implement solution where the NPAC performs OCN validation. This would require the SOA/LSMS/NPAC GUI to include the OCN in the NPA-NXX Create Request. The NPAC would maintain an OCN-to-NPA-NXX cross-reference file for editing purposes. This will be discussed again during the Apr '05 meeting.

Action Item: All participants are to discuss internally, and be prepared to discuss the proposed methods and any data options for the manual method and for the automated method.

Major points/processing flow/high-level requirements:

1. The NPAC "gets" the OCN Code Ownership Table source file (see open issue #1 below).

2. A new regional tunable, NPA-NXX Ownership Validation Acceptor (NOVA), will indicate whether or not the NPAC enforces this edit.

3. Two new Service Provider-specific tunables, NOVA-SOA and NOVA-LSMS, will indicate whether or not the Service Provider supports including the OCN information over the interface.

4. NPAC processing in a NOVA environment.

    a. When a region's NOVA indicator is set to **FALSE**:

        i. SOA/LSMS/NPAC GUI requests the creation of an NPA-NXX.

        ii. All existing edits apply. Success/failure is dependent on existing edits.

        iii. NOVA-SOA and NOVA-LSMS values are irrelevant.

    b. When a region's NOVA indicator is set to **TRUE**:

        i. SOA/LSMS/NPAC GUI requests the creation of an NPA-NXX.

        ii. All existing edits apply. Success/failure is *partially* dependent on existing edits. If the existing edits trigger an error, the NPA-NXX Create will be rejected.

        iii. Also, the new NOVA related edit might be applicable.

            1. If Service Provider-specific tunable (NOVA-SOA if request from SOA, NOVA-LSMS if request from LSMS) is **TRUE**:

                a. The NPAC verifies the requesting OCN "owns" the code according to the OCN Code Ownership Table source file.

                    i. If OCN Code Ownership passes, continue.

                    ii. If OCN Code Ownership fails, reject the NPA-NXX Create.

                b. NPA-NXX Create Request will only succeed when both existing edits and NOVA edits are passed.

                c. Successful NPA-NXX Create Requests trigger NPA-NXX Creates from NPAC to SOA/LSMS. The OCN is NOT part of this NPAC message to the SOA/LSMS.

            2. If Service Provider-specific tunable (NOVA-SOA if request from SOA, NOVA-LSMS if request from LSMS) is **FALSE**, the success/failure is based solely on the results of 4.b.ii above.

5. No reports are affected.

6. No impact to LRN, Dash-X, NPB, or SV processing.

Open Issues:

1. The input reference data/file (OCN Code Ownership Table of NECA OCN to NPA-NXX). Can this be obtained from the NANPA website? If not, who will create this? How maintained? Frequency? How will issues be resolved? Who has final say?

2. This change order only works well when ALL Service Providers in a given region support it. As long as at least one Service Providers does NOT support it, the data reliability is compromised.

Requirements:

TBD

IIS:

TBD

GDMO:

TBD

ASN.1:

TBD