LNP Problem/Issue Identification and Description Form

**Submittal Date** (mm/dd/yyyy): 08/18/2008 **PIM** 68 v6

**Company(s) Submitting Issue**: AT&T Mobility

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

1. **Problem/Issue Statement:** (Brief statement outlining the problem/issue.)

A carrier created a very large quantity of ISP subscription versions (aka TN ports) in their pooled 1K blocks with the same routing information carried at the block level over a short time period, causing a significant increase in ports and leading to a performance and capacity issue for a number of Industry LSMS’s.

1. **Problem/Issue Description:** (Provide detailed description of problem/issue.)

With the introduction of number pooling in 2003, an entire 1k block can be provisioned to an individual carrier. All appropriate routing information can be stored in carrier systems at the NPA-NXX-X level, overriding the code holder’s routing details for the block. Porting an individual TN still works within this paradigm to allow for routing at the TN level if it would be needed to differentiate from the block level.

Recently, a carrier has begun breaking out individual SVs from a large number of their pooled 1K blocks to the same routing information (LRN etc.) in order to prepare for an upcoming network migration. This led to a large growth in the size of LSMS instances across the industry as it receives these individual SV records. This resulted in capacity and performance concerns for many LSMS service providers based on these actions.

Additional analysis showed that the only difference between the Subscription version entries and Pooled Block entries were on three fields; EndUserLocationValue, EndUserLocationType, and Billing ID, which are not available at the block level.

B. Frequency of Occurrence: Estimated over 9 Million ports may have been performed by one carrier.

1. NPAC Regions Impacted:

Canada\_\_\_ Mid Atlantic X Midwest X Northeast X Southeast X Southwest X Western X

West Coast X ALL\_\_

1. Rationale why existing process is deficient:

With this recent significant increase in volumes, many national providers are scrambling to work with their vendors to provide additional capacity in an escalated manner, which could lead to more issues due to a lessened testing schedule to obtain the software and any hardware in a timely manner to meet the exhaust point. Processes should be documented to ensure that pooling and porting is effectuated via the NPAC in the most efficient means possible in order to mitigate the impact, e.g., throughput, database capacity, etc., on downstream service provider systems.

E. Identify action taken in other committees / forums

In approving SOW 69 for NANC Change Order 436, the NAPM LLC has taken the following actions:

1) Initiation and presentation of a Root Cause Analysis by the NPAC Administrator with respect to determining the reasons for the unexpected immediacy of potential LSMS exhaust and how the issue arose and under what circumstances, and development of a process for preventing future occurrences.

2) Immediate suspension and stopping all projects and activities, and continued suspension of all projects and activities, that result in the Activation or creation of new SVs by reason of the use of the Billing ID, End User Location Value, or End User Location Type fields, or the Alt-Billing ID, Alt-End User Location Value, or Alt-End User Location Type parameters for other than pooled block records. This is intended to avert any imminent exhaust in database capacity and to allow investigation to identify, consider, approve, and implement longer-term solutions.

F. Any other descriptive items: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Suggested Resolution:**

A) Implementation of the attached NANC Change Order 436 as soon as possible to address the current mismatch of data fields between the pooled 1K block record and the individual SV.

 

B) Upon implementation of NANC 436, the NPAC Administrator should develop an appropriate X-Regional notice to educate providers on its use and approach providers regarding identifying opportunities for collapsing individual SVs into pooled 1K blocks where they can.

C) Discussions should be initiated in the LNPA WG to determine and define industry use(s) of the Billing ID, End User Location Value, End User Location Type fields, and the Alt-Billing ID, Alt-End User Location Value, or Alt-End User Location Type parameters.

D) Discussion should be initiated in the LNPA WG to identify best practices in regards to intra-service provider porting Subscription Versions (aka TN’s) within a 1k block.

1. **Final Resolution:**

This PIM resulted in the creation of Best Practice 057 Impact of breaking pooled blocks into individual SVs

**LNPA WG:** (only) Final Resolution Date: 2/10/09

Item Number: PIM 68 v6 Related Documents: NANC 436, BP 057

Issue Resolution Referred to: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why Issue Referred: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_