LNP Problem/Issue Identification and Description Form

**Submittal Date** (mm/dd/yyyy): 07/09/2004 **PIM 043 v2**

**Company(s) Submitting Issue**: Verizon Wireless

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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.)

Verizon Wireless has concerns about the volume of port transactions that the NPAC can process per second when mass changes need to be made and broadcasted to the industry. Now that wireless service providers are porting throughout the United States, Verizon Wireless expects that the volume of port transactions will increase in general, and mass changes may need to be made more frequently as well.

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

A. Examples & Impacts of Problem/Issue:

As Verizon Wireless and other wireless service providers are continually managing their networks and load balancing the traffic and subscribers on them, subscriber migrations from one switch to another may become more frequent and of larger volumes in the future. For example, Verizon Wireless may need to move 100,000 ported in subscribers from Switch A to Switch B. These 100,000 numbers may need LRN changes in the NPAC, so the NPAC must be able to handle those 100,000 transactions in a short amount of time. The desired process would be to process all of the changes in one evening rather than having to split up the changes over a period of days or weeks.

The two methods available for large volume NPAC changes are 1) modifications done through the SOA and 2) modifications done using Neustar’s Mass Modification process. Going through the SOA, at the current rate of 4 to 6 transactions per second, it could take more than 4 hours to make LRN changes to 100,000 subscribers. If something goes wrong and Verizon Wireless needs to back out of the changes, then another 4 hours would be required to make the corrections. This could start to creep into regular business hours in large volume ports.

The Neustar Mass Modification process is limited to 25,000 changes per region per day Monday through Friday and 50,000 changes per region per day Saturday and Sunday. A wireless subscriber migration involves more than just that service provider; it also involves each of that service provider’s roaming partners updating their networks on the same night, resulting in a very large coordinated effort among many parties.

Verizon Wireless also has concerns about multiple wireless service providers doing these same types of migrations on the same nights and what coordination needs to take place to ensure that all service providers are able to manage their networks as needed and when needed. Using the Mass Modification method for large volume projects requires a high level of coordination and scheduling especially if other carriers in the region also need to do large modifications at the same time.

Additional updates between the NPAC and the SOA may be needed using the Mass Modification process. This adds additional time and coordination to fully complete a large volume project.

1. Frequency of Occurrence:

On average, Verizon Wireless does some type of subscriber migration/rehome about five times per month.

1. NPAC Regions Impacted:

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

 West Coast\_\_\_ ALL **X**

1. Rationale why existing process is deficient:

At the current rate of 4 to 6 transactions per second, large subscriber migrations could take hours, and the back out if something goes wrong will take just as long. A wireless subscriber migration involves many service providers, rather than just one, so it is critical that all updates be done in a timely fashion on the same night.

E. Identify action taken in other committees / forums: NANC 393 addresses the future SOA performance and throughput issues that will increase the performance such that the NPAC SMS shall support a total bandwidth of 40.0 SOA CMIP operations per second (sustained) for a single NPAC SMS region.

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

1. **Suggested Resolution:**

Verizon Wireless believes that the LNPA WG should discuss future SOA and NPAC throughput needs in relation to an inevitable need for large volume NPAC transactions.

1. **Final Resolution:**

This PIM was withdrawn by the submitter at the August 2004 LNPA meeting in lieu of submission of an NPAC Change Order (NANC 397).

**LNPA WG:** (only) Final Resolution Date: 8/16/2004

Item Number: 0043 v2 Related Documents: NANC 397

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

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