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NPAC Performance Study Update

Over the last few months, NeuStar has been performing an ongoing study to investigate a couple of issues of concern to its users. The issues in question are the sudden increase of Invalid Departure Time (IDT) aborts and the NPAC Retry Timer setting.

IDT aborts occur when a message, received by either the NPAC SMS (from a local system – SOA or LSMS) or by a local system (from the NPAC SMS), has a timestamp which differs from the receiving system’s time clock by more than five minutes. This results in the receiving system aborting the association between the NPAC SMS and the local system. These types of aborts occur from time to time due to system time clocks being “out of sync.” However, early this year, NeuStar perceived an unusual increase in the occurrences of this type of abort. They appeared to be occurring during periods of high porting activity.

NeuStar identified several contributing factors that can adversely affect the number of IDT aborts. These include: NPAC SMS database not being properly optimized for current system demands; high incidence of NPAC download retries; large and frequent queries; mass updates; long recovery periods following an extended local system outage; large and frequent audits; and extended peak porting activity.

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Billing User Group Resolves Customer Issues

In response to NPAC users suggestions to establish a forum to discuss billing issues, NeuStar developed the Billing User Group (BUG) to help resolve issues regarding LNP billing. The group, which started meeting in March, holds monthly conference calls to discuss pressing issues. (See schedule on page 2).

Comprised of NeuStar personnel and NPAC customers, the group is open to any service provider who receives an LNP invoice from the NPAC. To date, about 30-40 users have participated in the monthly calls.

One item that will be discussed on the June 19 BUG call is the process of confirming each users’ information on the NPAC database. During the week of June 5, NeuStar began mailing letters to all service providers to confirm the regional revenue information that was reported on Form 499. This form was mailed to all telecommunications service providers in

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Next Cross Regional Meeting in Montreal

NeuStar has two quarterly Cross Regional meetings scheduled for the remainder of 2000, with the next meeting being held in Montreal in July. The Cross Regional meetings are an open forum for local number portability (LNP) users to receive updates on technical issues pertaining to the dynamic development of LNP and the interfaces between the Number Portability Administration Center (NPAC) and the user community. To ensure that the information provided is beneficial and relevant to the audience, users are urged to submit issues/topics for the agenda via the secure website www.npac.com/secure/meetings.

Some of the information provided to technical staff in the past has related to software release implementations, help desk activities, system performance characteristics and process improvement plans. Over the past year, each meeting has been attended by 50-70 industry service providers. Almost half of the participants in the last

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NPAC Performance Study Update *(Continued from cover)*

Throughout late February and March, NeuStar took action on the NPAC database optimization issue, as well as provided “good porting practices” guidelines to the user community. The guidelines urged users to use audits and queries only when necessary, as well as using bulk data downloads as a means of recovering from extended outages. On February 20, NeuStar also implemented, as per the LNPA Working Group’s recommendation, a change in the Retry Timer setting from a 3x5 (three total attempts with a five-minute time interval between attempts prior to aborting for non-response) to a 1x15 (one attempt with fifteen minute interval before aborting for non-response).

As a result of these actions, the number of IDT aborts dropped dramatically from 29 in January to 23 in February, and then further dropped to 3 in March, and only 2 in April. NeuStar now believes that the problem is under control. Incidences of IDT aborts will continue to be monitored in case the problem should recur. However, NeuStar pledges that database “tuning” will be an ongoing task in order to prevent such problems from recurring. Should the problem recur, NeuStar will advise the industry and, as has occurred in the past, jointly work on a satisfactory solution.

The other issue that NeuStar has addressed is NPAC Retry Timers. These are settings which regulate how many times a failed download will be attempted before an abort is initiated, as well as the time interval the NPAC will wait prior to taking action (either a retry or an abort, once the retries are exhausted). As volumes increase, these settings have been subject to change. Originally, these values were set at 3x2 (three total attempts, two minute intervals between retries or abort). This was changed in the U.S. regions in late 1998 to a 3x5 setting (three total attempts, five minute intervals between retries or abort).

The Slow Horse subcommittee of the LNPA Working Group undertook a study of the successful download percentages over the last several months. It was concluded that the Retry Timer settings in place at that time (3x5) were no longer optimal. A setting of 1x15 was ultimately recommended and implemented in all U.S. regions on February 20. While statistics are not showing dramatic improvements in overall successful download percentages, no significant drop was encountered either. A closer look at the statistics since the change indicates that many Service Providers’ LSMSs are enjoying very good results, while others show

very poor figures. Since the NPAC SMS treats all Service Provider LSMSs in the same manner, this would suggest that there may be problems with certain Service Provider’s LSMS systems. NeuStar has undertaken an “as time permits” investigation of the Service Providers with lower success rates, in an attempt to identify any pattern of underlying cause. This study will take place over the next couple of months, with results being reported to the LNPA Working Group.

Even though the overall download success rate improvement has not been overwhelming since the implementation of the 1X15 Retry Timer, the current consensus is that the change has contributed to the control of the IDT abort issue, which is a positive overall change. NeuStar and the LNPA Working Group will continue to watch this setting to ensure that it is optimal for the ever-evolving LNP environment. **NEUSTAR**

Billing User Group

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the 1st quarter of 2000 by the National Exchange Carriers Association (NECA). Users are required to respond only if there is an error in the information or if there is a dispute. From the information gathered on the Form 499, users’ regional LNP allocation percents will be reassessed and that data will be reflected beginning with the July 2000 billing cycle.

NeuStar needs any changes to the database information by June 30. This is necessary to avoid some of last year’s problems with this process. Last year, service providers made many changes to the regional revenue, which caused revenue allocation percents for everyone else in the region to be unstable for three months. This resulted in additional “true-ups,” so that all service providers were paying their correct allocation from the initial billing.

The BUG Conference Call Schedule is as follows:

June 19	October 16
July 17	November 13
August 14	December 11
September 11	

All calls are held on a Monday from 1-2 p.m. (EST). The call-in number is 1-847-413-2931, access code 5484299. **NEUSTAR**

Pooling Update

New York

On April 25, New York's 716 pooling trial was placed on hold due to the apparent inability of two carriers to receive information on numbers ported for purposes of pooling using Release 1.4. The problem identified was that the two carriers had not properly tested their ability to receive information on ported numbers with the pooled number identifier. Using Release 1.4, each time a number is ported for pooling, it is identified specifically as a pooled number. The trial was back up and running by May 1.

In the interim, NeuStar suspended all block assignments while the carriers worked to update their systems. All previously assigned pooled blocks had to be "un-ported" and "re-ported." The one-week shut down was much shorter than originally anticipated.

On May 31, the New York Public Service Commission (NYPSC) and NeuStar held an implementation meeting for the 518 NPA in which pooling will begin on September 15.

Maine

Following a November 4, 1999, Order mandating thousand block number pooling in NPA 207 by June 1, pooling was implemented on time on that date. As of May 22, prior to the start of the trial, 386 contaminated and uncontaminated thousand blocks were returned by carriers across the 133 rate centers in NPA 207. These blocks, already designated for use in a particular rate center, will be used to fill out the pool of numbers in each individual rate center.


New Hampshire

Following a January 7 Order mandating thousand block number pooling in NPA 603 by May 1, pooling was implemented on time on that date. As of the start of the trial, 725 contaminated and uncontaminated thousand blocks were returned by carriers across the 117 rate centers in NPA 603. These blocks, already designated for use in a particular rate center, will be used to fill out the pool of numbers in each individual rate center.

Oregon

The FCC put Oregon's petition for delegated authority (File No. NSD-L-00-29, CC Docket 96-98) out for public comment. In their petition, Oregon asked for delegated authority to: (1) implement mandatory thousands-block number pooling trials; (2) enforce number assignment standards by auditing number resource use, by requiring data reporting and number utilization forecasting, and by requiring carriers to return portions of unassigned prefix codes; (3) adopt interim number assignment standards; (4) implement interim unassigned number porting; and (5) revise rationing procedures as necessary. Comments are due June 15. Replies are due June 30.

Florida

On May 30, the Florida Public Service Commission ordered pooling in three Florida NPAs (Docket No. 981444-TP, Order No. PSC-00-1046-PAA-TP). Pooling will be implemented first in the 954 NPA on January 22, 2001. NeuStar was selected as the pooling administrator in the Order. 

Pooling Administration Tracks Efforts

During the month of April, NeuStar, as the Interim Pooling Administrator for a number of State trials, provided the first draft of a monthly reporting tool aimed at tracking its performance as Pooling Administrator. The measurements are a compilation of the Industry Numbering Council (INC) pooling administration requirements that have been developed by the telecommunications industry participants that represent their companies as members of INC. This first report served as a draft for service providers, and NeuStar has taken some of the comments and suggestions provided by the industry to assist in making this tool meaningful and a useful parameter for measuring performance. The initial report indicated that NeuStar met 20 of 21 quality measurements for the seven states in which measurements are taken for pooling. The one measurement missed—blocks activated in the Number Portability Administration Center (NPAC) on the scheduled effective date—was due to the technical problems encountered by service providers in the New York 716 pooling trial (see Pooling Update, New York).

The measurements include items such as preparing and distributing minutes from implementation meetings to receiving and processing NXX-X application in a timely manner, and working with the NPAC to ensure pooled numbers are ported properly. Measurements were based on requirements of the Pooling Administrator in the INC Thousand Block Pooling Guidelines. For copies of these measurements, as well as a pooling status report by state, please go to www.numberpool.com. NeuStar encourages comments or suggestions that will help in tailoring a reporting tool that is easy to use and beneficial to the industry.

Statement of Work (SOW) Status Updates

The following is a summary of the Statements of Work (SOWs) currently in progress at NeuStar. All NeuStar SOWs are prepared with precisely stated responses to the LLC requirements in order to generate fair prices for the deliverables and/or services to be provided. It is NeuStar's intent to continue to prepare all SOWs in explicit terms that will enable the LLCs or Users to clearly understand NeuStar's response to their requirements and needs.

SOW 15 – Release 3.0

SOW 15 was issued by NeuStar in May 1999. Work on the NPAC/SMS Release 3.0 began in August 1999. Currently, Interoperability Testing is in progress and specific dates for Turn-Up Testing are being established. Updates to the Release 3.0 Project Plan continue to be posted to the web at www.npac.com (See related story on this page.)

SOW 17 – Performance Measurements

SOW 17 was issued by NeuStar in February 2000. This SOW covered the work to develop code to run, measure and produce reports for various TN porting scenarios. SOW 17 had a three week schedule. NeuStar met the schedule and provided the appropriate deliverables in May 2000.


SOW 20 – Release 4.0

NeuStar issued SOW 20 in May 2000, and a revision with updated pricing was issued in the beginning of June 2000. This SOW deals with the effort surrounding the Release 4.0 NPAC/SMS software enhancement. NeuStar hopes to gain customer acceptance of SOW 20 by mid-August 2000 in order to begin timely work on the 34-week schedule.

SOW 21 – NANC 301 (TCP/IP Heartbeat)

SOW 21 was issued by NeuStar in March 2000. This SOW is not an enhancement to the NPAC/SMS but rather an implementation of a heartbeat on the TCP/IP layer of the NPAC/SMS. There is no cost associated with SOW 21, which was delivered in April 2000.

SOW 22 – Release 4.0 for Canada

NeuStar issued SOW 22 in May 2000. The Canadian Consortium is currently reviewing this draft SOW. The functionality of this SOW is based on a subset of the NANC Change Orders, commonly known as Release 4.0. 

Release 3.0 On Target for July Delivery

Release 3.0 is the largest software enhancement release for the NPAC system to date and is on target to meet the current July 28 software delivery date. The release is currently in System and Regression testing with NeuStar Technical Operations staff and subcontractors. This testing provides internal certification of Release 3.0. Interoperability Testing (ITP), which tests the interface between the Service Providers or their vendors and the NPAC, is underway and is approximately 50% complete. Turn Up Testing (TUT) registration, which begins June 15, is performed by the Service Providers and tests the Release 3.0 application.

Below are the key milestones for Release 3.0 delivery:

Task	Dates
Region 1 (Northeast) Turn Up Testing	7/31/00-9/15/00
Region 1 Group Testing	9/18/00-10/20/00
Region 1 Performance Testing	10/23/00-10/27/00
Region 1 Disaster Recovery Testing	10/30/00-11/3/00
Region 1 General Availability	11/6/00
Disaster Recovery Test – Production	12/3/00
Super Region Turn Up Testing	9/18/00-11/10/00
Super Region (Regions 1-7) Group Testing	11/13/00-2/19/01
Region 2 (West Coast) General Availability	1/15/01
Region 3 (Southeast) General Availability	1/22/01
Region 4 (Southwest) General Availability	1/29/01
Region 5 (Western) General Availability	2/5/01
Region 6 (Midwest) General Availability	2/12/01
Region 7 (Mid Atlantic) General Availability	2/19/01

Would you like to contribute a story
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Please send story ideas to
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A Word from NeuStar's Chairman and CEO

A hallmark of NeuStar's role in the telecommunications industry is our commitment to all of our customers. It's the foundation of our company – it's why we are in business – and it's something we take very seriously.

Being the neutral, third-party service provider to the telecommunications industry almost always assures that we will never win a popularity contest. NeuStar is evaluated by our customers based on their experiences with our staff and the level of service we provide. Many of the issues we are tackling together are without precedent and their outcomes must meet the needs of all—fairly and equally. If we fall short in our service to just one of our valuable customers, everyone suffers. We do not take these problems lightly—if they are significant to our customers, then they are significant to NeuStar. This is paramount to our organization.



Jeff Ganek

As NeuStar evolved from Lockheed Martin, our management was well aware that our emerging company needed to gain organizational maturity. We continually seek ways to formalize our decision-making processes and clarify internal and external communications processes. Another of our early goals has been to implement a comprehensive, coordinated performance management system.

To meet these objectives, NeuStar has undertaken several important activities. Last December, we began working internally with senior management and line managers on management processes and organizational development. We retained industry experts to conduct an internal assessment of NeuStar, and in January they conducted customer perception interviews to analyze the common perceptions and differences in views from within and outside of the company.

As a result of this work, we have created the NeuStar Enterprise Management Methodology, which has been designed to assist all functional groups within NeuStar to maximize their performance and service delivery. We have formed 12 strategic project teams to address issues such as operational performance and customer relations management, as well as internal processes, such as human services support and technical infrastructure support. The goal of these efforts is to ensure that NeuStar meets the expectations of each and every customer.

In response to our analysis, we have: added billing experts added to the billing group to enhance our responsiveness to key service indicators; added a customer-focused multi-level training program for technical support for the User Support Administration in Chicago; and increased the number of USAs and management staff to support the Help Desk. In addition, we have formed Technical Industry Support teams to better prepare and deliver key technical information to industry meetings, such as the Cross Regional meetings and the LNPA Working Group. We have also added key technical staff from the industry to our team that supports the work of the LNPA Working Group.

NeuStar has set immediate action and long-term goals with target dates and committed to the LLC members to update them each month on the progress made towards completion. Additionally, we continue to meet one-on-one with service providers to ensure that specific company oriented concerns are being addressed and our partnership with industry broadened.

This is a dynamic and ongoing process during which our commitment to our base business customers will remain unwavering.

A handwritten signature in black ink, appearing to read "Jeff Ganek". The signature is fluid and cursive, written over a white background.

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Next Cross Regional Meeting in Montreal

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two meetings have been first-time attendees, which means that the user community continues to bring in new staff to work with LNP. These meetings are a great source of information and an opportunity to meet other technical representatives and learn from their experiences.

The next Cross Regional meeting will be held in Montreal on July 26 and is being hosted by Videotron of Canada. Hotel information and meeting agenda information can be obtained from the www.npac.com website under meetings. The November Cross Regional meeting will be held in St. Petersburg, Fla., and will be hosted by Intermedia. For more information regarding Cross Regional meetings, please contact Sharnae Lewis at NeuStar at 202.533.2626 or sharnae.lewis@neustar.com.

Portability, ink.

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